Enrollment and Success in Transfer-Level English and Math in the California Community Colleges System

Fall 2015 to Fall 2019 Statewide Analysis

Table of Contents

Executive Summary

Project Overview

Colleges across the California Community College (CCC) system have been preparing for changes to their assessment and placement processes associated with the required implementation of Assembly Bill (AB) 705. While many inititiatives were already underway to increase students' completion of their education, including Guided Pathways and the Student Centered Funding Formula, AB 705 focuses on maximizing student completion of transfer-level English and math within one year.[1] In anticipation of AB 705, numerous CCCs began adjusting English and math placement processes in fall 2018[2] to facilitate students' direct entry into and success in transfer-level courses. *All* CCCs were required to be in compliance with AB 705 no later than fall 2019.

In order to understand how the mandate of AB 705 has impacted student enrollment and success over time, including the years leading up to the 2019 required implementation, the Research and Planning Group for California Community Colleges (RP Group) conducted a statewide analysis of student outcomes from fall 2015 to fall 2019. The areas of inquiry in this report include enrollment in transfer-level English and math courses and success in these courses, both as a proportion of those who enroll in them and as a proportion of the general math- and English-course-taking population overall.

This analysis examines data from five fall cohorts from 2015-2019. However, **this report focuses most on the changes that occurred between cohorts that began in fall 2018 and fall 2019, the time period during which colleges were *required* to increase enrollment in transfer-level courses.** That said, it is also important to note that between 2017 and 2018, many colleges began to substantially increase enrollment in transfer-level courses; therefore, looking at both of these time periods (2017 to 2018 and 2018 to 2019) relative to those before 2017 helps distinguish between changes that are a part of broader trends that have been ongoing since at least 2015 and changes that are more likely a result of reforms in assessment, placement, and student support processes.

Research Questions

To better understand the relationships between AB 705 reforms and student outcomes, this report explores research questions pertaining to the following two key areas:

- **Enrollment** in transfer-level English and math courses

- **Success** in transfer-level English and math classes, as measured by the number of students who successfully complete transfer-level English and math courses within one year, both (a) out of those who attempted transfer-level courses, and (b) system-wide, as a proportion of the entire cohort of math and English course-taking students (commonly referred to as throughput rate).

---

[1] *http://bit.ly/2m5bQxW*
[2] *http://bit.ly/2m4wb6o*

Patterns and trends with respect to enrollment and success are explored for fall cohorts beginning in 2015 through 2019 and tracked for one year. Enrollment and success metrics are disaggregated by student demographic characteristics, and throughput rates are also broken out by high school grade point average (GPA) as defined in the AB 705 default placement rules. Transfer-level math enrollment and course success patterns are disaggregated by statistics-liberal arts math (SLAM) pathways and business-science, technology, engineering, and math (B-STEM) pathways.[3]

Methodology

The data used in this report were provided to the RP Group's Multiple Measures Assessment Project (MMAP) research team from CalPASS Plus. These data included all CCCs (N = 115), with the addition of Los Angeles ITV/Weekend College submitting to the Management Information System (MIS). The data included students enrolled between fall 2015 and fall 2019. The math (N = 804,993) and English (N = 864,236) samples included all students who attended a CCC anywhere in the system and enrolled in one or more credit math or English course.

When reviewing the results in this report, please note that **unless stated otherwise, all of the findings refer only to students whose first course in English or math is at transfer level.** In other words, the report examines the experiences of students who have *not* previously taken non-transferable English or math courses, but instead started at transfer level.

Summary of Results

Overall, the results of this study offer encouraging insight into the impact of AB 705. Direct enrollment into transfer-level English and math courses rose substantially (most pronounced for African American and Latinx[4] students). While course success rates among those who enrolled directly into transfer-level English and math courses declined somewhat, the size of the decline was not proportional to the size of the increase in enrollment rates. As such, there was **a large overall net increase in the total volume of students completing transfer-level English and math,** as well as an increase in the overall throughput rates (proportion of *all* students enrolled in a math or English class passing transfer-level English and math within one year).

These results support the finding that changes to assessment and placing students directly into transfer-level English and math courses enables more students not only to enroll, but also succeed in transfer-level coursework, helping them move more efficiently toward their ultimate educational goals.

---

[3] Note: Throughput rates are not disaggregated by SLAM and B-STEM due to the inability to identify the starting course for math students without knowing their program of study, which is not available in the data file provided.
[4] Ethnicity data are from the MIS, though we use the term "Latinx" instead of "Hispanic" to indicate students who are Hispanic or Latina/o/x. Additionally, "African American" is used in this report to refer to students who are identified by some colleges as "Black."

Enrollment in Transfer-Level English and Math Courses

ENGLISH COURSES

- **Direct enrollment into transfer-level English rose to 95% in fall 2019** compared to 71% in fall 2018, an increase of 24 percentage points (%pts) and 46,994 more students.

- All racial/ethnic groups saw large gains in direct enrollment into transfer-level English from fall 2018 to fall 2019, with **the largest gains in enrollment among African American students** (32 %pts).

- Between fall 2015 and fall 2019, **the gap in direct enrollment into transfer-level English courses between African American and White students narrowed to 4%** (closing by 26 %pts, including 17 %pts in the past year alone). At the same time, **the gap between Latinx and White students narrowed to just 1%** (closing by 24 %pts since 2015, including 13 %pts in the past year).

- While all student groups increased their direct enrollment into transfer-level English from fall 2018 to fall 2019, most notably, students in Puente saw a dramatic increase in enrollment into transfer-level English on the order of 56 percentage points (from 42% to 98%), while foster youth saw a gain of 33 percentage points (from 62% to 95%).

MATH COURSES

- **Direct transfer-level math enrollment rose to 79% in for the fall 2019 cohort** compared to 43% in fall 2018, an increase of 36 %pts and 46,248 more students.

- **All racial/ethnic groups saw large gains in direct enrollment into transfer-level math** from fall 2018 to fall 2019, with the **largest gains found among both African American and Latinx students** (42 %pts each).

- Between fall 2015 and fall 2019, **the gap in direct enrollment into transfer-level courses between African American and White students narrowed to 13 %pts** after having remained stagnate at 32 %pts both as far back as 2015 and as recently as 2018). Furthermore, **the gap between Latinx and White students narrowed to 8 %pts,** a substantial decrease from the 27 %pt gap seen in 2018 and the 30 %pt gap found in 2015.

- While all student groups increased their direct enrollment into transfer-level math from fall 2018 to fall 2019, students in CCC support programs experienced some of the most significant enrollment growth. Most notably, students in Extended Opportunities Programs and Services (EOPS) saw a dramatic enrollment increase on the order of 43 percentage points (from 34% to 77%), and students in Disabled Students Programs and Serviecs (DSPS) saw a gain of 39 percentage points (from 28% to 67%).

Success in Transfer-Level English and Math Courses

Overall, findings suggest that despite a dramatic influx of students into transfer-level English and math courses in fall 2019, **student success (transfer-level course completion within a year) has not declined substantially, resulting in a large *net increase* in the number of students passing**

such courses. In other words, students appear to be rising to the challenge of direct enrollment in transfer-level courses when given the opportunity.

FIRST COURSE COMPLETION VOLUME AND SUCCESS RATES

The data indicate that students are successfully *completing* transfer-level courses within one year in larger numbers than ever before. The number (volume) of students across all ethnic groups who successfully completed transfer-level English and math classes has risen substantially since fall 2015. Looking across the past five years, **2.5 to 3 times as many African American and Latinx students completed transfer-level English and math among the fall 2019 cohort relative to fall 2015 cohort,** though the most growth took place between the fall 2018 and 2019, when AB 705 implementation became a requirement.

ENGLISH COURSES

- Within the fall 2019 cohort, **26,103 more students completed transfer-level English in one year than in the cohort beginning fall 2018, a 28% increase.** The largest gain was seen among Latinx students (15,587 more students).

- While the *number* of successful completers of tranfer-level English has increased substantially since fall 2015, **success rates for transfer-level English have decreased by five percentage points.**

MATH COURSES

- Within the fall 2019 cohort, **22,193 more students completed transfer-level math than in the cohort beginning fall 2018, a 47% increase.** However, the increase was larger in SLAM math courses (68%) than in B-STEM (18%) math courses. The largest gains in transfer-level math completion were among Latinx students (11,201 more students).

- While the *number* of successful completers of tranfer-level math has increased substantially since fall 2015, **success *rates* for transfer-level math have decreased by eight percentage points in the past year for math overall,** and by nine and seven percentage points for SLAM and B-STEM math courses, respectively.

THROUGHPUT RATES

Success in transfer-level English and math as a proportion of the *entire* cohort of students taking any English or math courses (throughput) demonstrates **a clear positive impact of the new placement rules.** Throughput rates increased substantially since 2015, particularly from 2017 to 2018 and then again from 2018 to 2019, when colleges began implementing changes to assessment and placement into transfer-level courses at a higher rate and then at full scale, respectively.

ENGLISH COURSES

- One-year throughput rates for English have been consistently increasing since 2015. From fall 2018 to fall 2019, there was a **five percentage point increase in English throughput** (62% to 67%).

- English throughput rates have increased for all racial/ethnic groups (and more so for students of color) over time, though **equity gaps in English throughput remain,** favoring Asian and White students.

- **Especially notable are the throughput gains among foster youth and students enrolled in Puente** that occurred between fall 2018 and 2019.

MATH COURSES

- In math, the one-year **throughput rate in math increased by 15 percentage points** (35% to 50%) between fall 2018 and fall 2019.

- Math throughput rates have consistently increased for all racial groups since 2015. However, **gaps between racial groups continue to persist.**

- **Especially notable are the throughput gains among veterans and students enrolled in Puente.**

HIGH SCHOOL GPA BANDS

- A comparison of throughput rates among the fall 2019 cohort for students who enrolled directly in transfer-level courses relative to students who in prior years started at one or more levels below transfer demonstrates that **enrollment directly into transfer-level subjects maximizes the liklhood students will successfully pass such courses.**

- **In English courses, the full implementation of AB 705 has been particularly impactful for students with lower high school GPAs.**

Research Limitations

While degree-seeking students are included in AB 705, only transfer-level courses were included in this study, limiting the inclusion of intermediate algebra for local degrees. Moving forward, new data elements will be available that will help with the identification of additional courses in other Taxonomy of Program (TOP) codes that meet transfer requirements. The ability to include support courses will also be possible in the future due to the inclusion of a new MIS data element designed to identify these particular courses.

Conclusion

This year's report provides evidence as to the initial success of system-wide AB 705 implementation. **On the whole, findings suggest that the AB 705-aligned approaches to assessment and placement are having a positive impact on students' equitable enrollment in transfer-level English and math courses,** significantly increasing the volume of students from all backgrounds succeeding in these courses. Additionally, findings thus far have shown **consistency across several measures of student success, even though enrollment has expanded.** While this most recent analysis shows that success rates in transfer-level English and math classes have dipped, there has nonetheless been a substantial net increase in the number of students passing these courses.

However, findings also suggest that **gaps between racial/ethnic groups continue to persist, even with the gains in access to transfer-level courses, most notably in math.** Future research will examine how different pedagogical and curricular models are best supporting the achievement of transfer-level success for all students as well as varied long-term outcomes. If these results hold true over the next few years, increased enrollment and success in transfer-level English and math can ultimately help students complete their courses of study in a more timely fashion and perhaps increase the likelihood of achieving their educational goals.[5]

Issues to Consider

While the early indicators discussed in this report are mainly encouraging, the findings also point to some issues of potential concern that colleges might want to keep in mind as they evaluate their implementation of new assessment and placement practices. One particular issue is the variation in success rates among students in the middle and lowest GPA bands compared to students in the highest band. The lower and middle GPA bands tend to comprise a higher proportion of marginalized students.[6] The fact that these students do not seem to be succeeding in the same way as their peers in the highest GPA band aligns with the findings that show only small progress related to closing gaps between racial/ethnic groups in terms of success rates. This finding suggest that if colleges are going to make meaningful progress in closing equity gaps in transfer-level courses, it will be important to pay close attention to the experiences of these middle- and lower-band GPA students, including the courses in which they enroll (at transfer-level or below), the support provided to them, and the curriculum and learning taking place in these courses.

[5] *ccrc.tc.columbia.edu/media/k2/attachments/early-momentum-metrics-college-improvement.pdf*
[6] *http://bit.ly/2n3e1lW*

Introduction

Project Overview

The California Community College (CCC) system has made changes to its assessment and placement processes under Assembly Bill (AB) 705. While many inititiatives were already underway in order to increase the likelihood that students would complete their education goals at a higher rate—including acceleration, Guided Pathways, and the Student Centered Funding Formula—AB 705 focuses on maximizing student completion of transfer-level English and math courses within one year.[7] In anticipation of AB 705, which became a requirement in fall 2019, numerous CCCs throughout the state began adjusting English and math assessment and placement processes in fall 2018[8] to facilitate students' direct entry into transfer-level courses.

In order to understand how the statewide mandate of AB 705 impacts access and success over time, the Research and Planning Group for California Community Colleges (RP Group) conducted a statewide analysis of student outcomes from fall 2015 to fall 2019. **This analysis focuses in particular on changes that occurred between 2018 and 2019, the time period during which AB 705 became mandatory.** However, since many colleges began to implement new assessment and placement practices in preparation of the AB 705 mandate, notable changes between fall 2017 and fall 2018 are also highlighted where especially relevant.

Research Questions

To better understand the relationship between AB 705 reforms and student outcomes, two key areas are explored in this analysis: (1) **enrollment** in transfer-level English and math courses, and (2) **success** in completing transfer-level English and math courses. Outcomes are examined for the overall student population and are also disaggregated by race/ethnicity,[9] gender, foster youth status, veteran status, economic status, and participation in Disabled Students Programs and Services (DSPS)[10], Extended Opportunities, Programs and Services (EOPS)[11], Mathematics, Engineering and Science (MESA)[12], Puente[13], and/or Umoja.[14]

---

[7] http://bit.ly/2mYQrGM

[8] http://bit.ly/2lvNLQl

[9] While the charts only present data for African American, Asian, Latinx, and White students, the tables present additional data for Native American and Pacific Islander students, as well as students of two or more races and students for whom race/ethnicity is unknown.

[10] https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/Student-Service/What-we-do/Disabled-Student-Programs-and-Services

[11] https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/Student-Service/What-we-do/Extended-Opportunity-Programs-and-Services

[12] https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/What-we-do/Curriculum-and-Instruction-Unit/Mathematics-Engineering-Science-Achievement

[13] https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/What-we-do/Curriculum-and-Instruction-Unit/Puente-Project

[14] https://umojacommunity.org

Enrollment is captured in the following ways:

- Total <u>number</u> of students who attempted a transfer-level course as their first English or math course (enrollment volume)
- <u>Proportion</u> of students who attempted a transfer-level course as their first English or math course in the fall term out of all those who took *any* English or math course that fall (enrollment rate)

Success is captured in the following ways:

- Total <u>number</u> of students who successfully completed a transfer-level course as their first English or math course (first course completion volume)
- <u>Proportion</u> of students who successfully completed a transfer-level course within a year out of:
    - Those who attempted such a course (first course success rate)
    - The entire cohort who took any English or math course (throughput)

In addition, please note that **unless stated otherwise, all of the findings refer only to students whose first course in English or math is at transfer level.** In other words, the report examines the experiences of students who have *not* previously taken non-transferable English or math courses, but instead started at transfer level.

The specific research questions this analysis aimed to answer are listed below.

Enrollment

- How many students in fall 2019 enrolled in a transfer-level English or math course as their first enrollment in the discipline compared to previous fall terms?
- What proportion of students in fall 2019 enrolled in a transfer-level English or math course as their first enrollment in the discipline compared to previous fall terms?

Success

First Course Completion Volume

- Among students whose first English or math course is at transfer level in the fall term of a given year, how does the volume of successful completions within one year compare with prior years?

First Course Success Rate

- What are the one-year success rates in transfer-level English or math among students who enrolled directly into the course as their first enrollment in the discipline in each fall term?

Full Cohort Success Rate (Throughput Rate)

- Among the full cohort of incoming students each fall who take any English or math course, what proportion both take and pass transfer-level English and math within a year?
- How does throughput differ by high school GPA band?

Methodology

To conduct this analysis, a data file was provided to the RP Group's Multiple Measures Assessment Project (MMAP) research team from CalPASS Plus (dated 11/13/2020) that included all California Community Colleges (N = 115) submitting to the Management Information System (MIS). The data included students enrolled between fall 2015 and fall 2019. The math (N = 804,993) and English (N = 864,236) samples included all students who attended a California Community College and enrolled in one or more credit English or math courses.

English courses were defined by the Taxonomy of Program (TOP) code 1501.00 (English). Math courses were defined by the TOP code 1701.00 (Mathematics) as well as specific "non-math" math courses in other TOP code areas including 0103.00 (Plant Science), 0501.00 (Business), 0505.00 (Business Administration), 0506.00 (Business Management), 0707.10 (Computer Programming), 1799.00 (Other Math), 2001.00 (Psychology), 2003.00 (Behavioral Science), 2099.00 (Other Psychology), 2201.00 (Social Sciences), 2204.00 (Economics), and 2208.00 (Sociology). Math courses within other TOP codes were identified in collaboration with the Academic Senate for the California Community Colleges.

Additionally, courses with pre-transfer CB 21 codes (e.g., "A", "B", "C", or "D") were included as below transfer-level. Transfer-level gateway courses with math and English TOP codes were those courses with a CB21 code of "Y" (not prior to college level) and a CB05 transfer status code indicating that the course transfers to the University of California (UC) and/or California State University (CSU) system.

Ethnicity data are from the MIS system, though we use "Latinx" instead of "Hispanic" to indicate students who are Hispanic or Latina/o/x. The underlying data elements and counts, however, are the same. The MIS data used in the report are state-level data; thus, enrollments and completions are counted at the system level and are not duplicated at the college level if a student is enrolled at more than one institution.

Data on student enrollment, success, and GPA were based on students whose first enrollment in an English or math course was at the transfer level. Student enrollment in a pre-transfer-level course was based on their first enrollment in the discipline. Note that enrollments with grade codes of XX, DR, MW, RD, UD, UG, RD1, RD4, RD5, and IP were not included in the analysis, as they do not represent valid enrollments or letter grades. Student outcomes were tracked anywhere within the system. Successful completions include A, B, C, P, and CR grades, as well as incomplete grades equivalent to a passing grade (e.g., IA, IB, IC). Withdrawals, including excused withdraws (EW), were considered to be non-successful attempts, as were incomplete, non-satisfactory, and non-passing grades (e.g., D, F, NP, I).

First enrollment in math and English was not limited to students' first term or year, as students may delay enrollment in these courses. The MIS data file was matched to CalPASS Plus high school transcript records, which resulted in 64%-66% of student records having both MIS data and a valid high school GPA available. A students' transcriptable unweighted high school GPA was provided.

Throughput rates include students who completed a transfer-level gateway class within one year (365 days) of their initial attempt in the sequence. If students' first transfer-level attempt was

unsuccessful, their second transfer-level attempt was also included in the data file. Therefore, throughput rates described in this report could be slightly underestimating the true effect, as it is feasible that some students could attempt to pass a transfer-level course more than two times within one year (especially across colleges or districts, or at colleges using the quarter system).

Statistics and liberal arts math (SLAM) and business-science, technology, engineering, and math (B-STEM) courses were categorized by examining course titles and, when necessary, college catalogs to determine the course type. For example, a course titled Introductory Statistics would be classified as SLAM, while a course titled Precalculus would be classifies as B-STEM. Four percent of math courses did not fall within the SLAM or B-STEM categories; these included courses such as Arithmetic or Combined Elementary and Intermediate Algebra. Courses that appeared to cover below transfer-level content and had apparently been miscoded as transfer-level (e.g., arithmetic) were not coded as either SLAM or B-STEM.

Enrollment in special programs (i.e., DSPS, EOPS, veterans, or foster youth) were included as enrolled in the program if enrollment occurred at any point within the timeframe of the study. Enrollment in the program did not have to take place at the time of enrollment in a math or English course.

In This Report

This report begins by discussing key findings in the areas of enrollment and success, identifying specific research questions, providing detailed charts and tables with relevant data, and offering brief analyses of those charts and tables. Next, the report offers a short discussion of the limitations of this particular study, followed by a conclusion that reflects on the report's findings, explores what those findings might mean, and places the findings in the context of the big picture of AB 705 and overall assessment and placement practices in California Community Colleges. It also includes an appendix that presents the counts and percentages upon which charts are based.

Key Findings

The key findings are organized by research questions, beginning with those that address enrollment and followed by those that address success. As noted earlier, please keep in mind that **unless stated otherwise, all of the findings refer *only* to students whose first course in the English or math discipline is at transfer level.** In other words, the report examines the experiences of students who have *not* previously taken a non-transferable English or math course, but instead started at transfer level. **The only exception is in the case of throughput rates,** which examine outcomes among students who began the English or math discipline at any starting level, not just those who entered directly at transfer level.

Enrollment in Transfer-Level English and Math

This section examines enrollment patterns in transfer-level English and math courses among students who are entering either discipline for the first time. Specifically, the data presented below answer the following research question:

> *How many students in fall 2019 enrolled in a transfer-level English or math course as their first enrollment in the discipline compared to prior fall terms?*

Enrollment in transfer-level English or math courses as the first course a student takes in the sequence is displayed in Chart 1. **For English, enrollment increased by 24 percentage points from fall 2018 to fall 2019,** growing from 71% to 95%. Direct transfer-level enrollment in **math also saw a marked increase from fall 2018 to fall 2019, growing by 36 percentage points** (from 43% to 79%).

While large gains were seen in both disciplines as AB 705-aligned approaches were being rolled out in many CCCs, such increases grew further once the mandate was put into place in fall 2019. **The data indicate that implementation of systems and processes that allowed for greater access to transfer-level English and math courses had a substantial impact on student enrollment numbers.**

Chart 1. Percentage of Students Who Enrolled Directly in Transfer-Level English and Math—Fall 2015 to Fall 2019
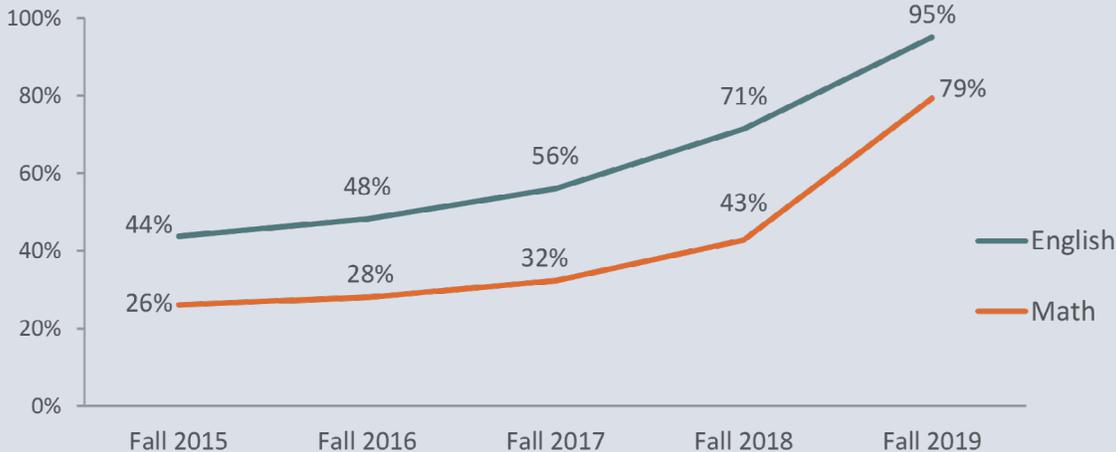
Table 1 below displays the student enrollment numbers that were used to calculate the percentages shown in Chart 1. (See Tables A1 and A2 in the Appendix for math course-taking rates disaggregated by SLAM and B-STEM, respectively.)

Table 1. Number and Percentage of Students Whose First <u>English or Math</u> Course Was at Transfer Level by Cohort

Cohort	# of Students Who Enrolled Directly into Transfer-Level	# of Total Enrollments in a Subject at Any Level	% of Students Who Enrolled Directly into Transfer-Level
English			
Fall 2015	72,788	166,150	44%
Fall 2016	81,441	168,940	48%
Fall 2017	96,582	172,331	56%
Fall 2018	125,423	175,572	71%
Fall 2019	172,367	181,232	95%
Math			
Fall 2015	42,734	163,654	26%
Fall 2016	46,434	165,656	28%
Fall 2017	53,998	167,309	32%
Fall 2018	69,487	162,317	43%
Fall 2019	115,735	146,057	79%

Chart 2 on the next page disaggregates enrollment in transfer-level English courses as the first course taken in the discipline by race/ethnicity. **All racial/ethnic groups saw large gains in direct transfer-level English enrollment from fall 2015 to fall 2019, with the largest year-to-year gain occurring between fall 2018 and fall 2019.**

Particularly striking, however, is the narrowing of the gaps *between* racial/ethnic groups. For example, the gap between African American and White students narrowed from 30 percentage points in fall 2015 to just four percentage points in fall 2019. The corresponding gap between Latinx students and White students narrowed from 25 percentage points to one percentage point. Furthermore, while enrollment levels varied widely across the four groups in fall 2015, that 30-percentage-point spread narrowed substantially by fall 2019 when all ethnic groups achieved enrollment levels of 92% to 96%.

Chart 2. Enrollment in Transfer-Level _English_, Disaggregated by Ethnicity—Fall 2015 to Fall 2019
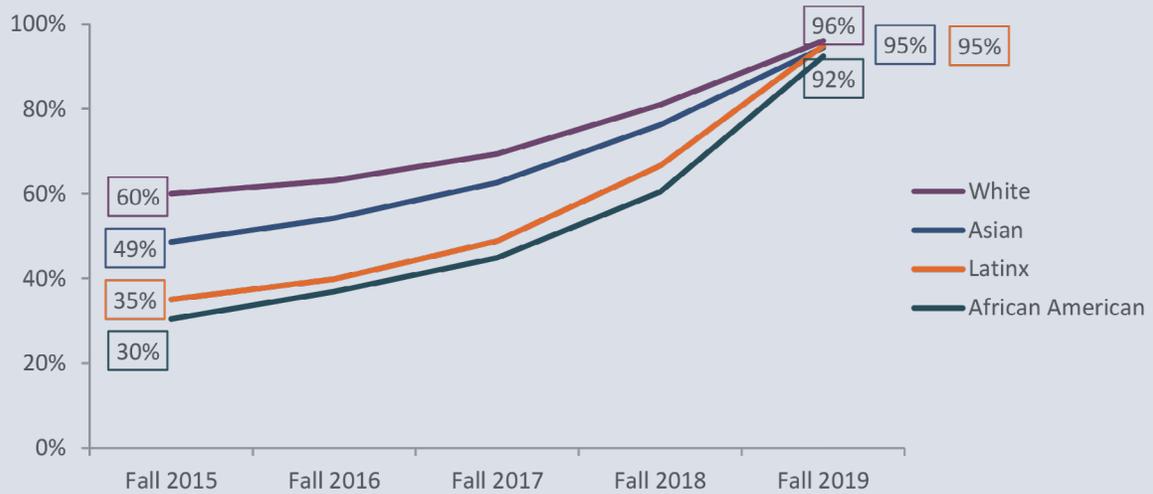
Below, Chart 3 disaggregates enrollment into transfer-level English courses by different student groups. Again, all groups saw large gains in direct transfer-level English enrollment from 2015 to 2019, with the largest year-to-year gain occurring between the 2018 and 2019 fall cohorts. Students in Puente saw an increase in enrollment of 56 percentage points (from 42% to 98%), while foster youth saw a gain of 33 percentage points (from 62% to 95%).

Chart 3. Enrollment in Transfer-Level _English_ by Student Group—Fall 2015 to Fall 2019

	Female	Male	DSPS	Foster Youth	EOPS	Ec Dis	MESA	Puente	Umoja	Veteran
Fall 2015	43%	44%	32%	34%	31%	39%	59%	8%	30%	51%
Fall 2016	48%	48%	35%	37%	37%	41%	64%	14%	33%	57%
Fall 2017	56%	56%	43%	47%	48%	51%	76%	24%	45%	65%
Fall 2018	72%	71%	59%	62%	65%	70%	86%	42%	67%	74%
Fall 2019	95%	95%	89%	95%	95%	95%	99%	98%	96%	97%

■ Fall 2015   ■ Fall 2016   ■ Fall 2017   ■ Fall 2018   ■ Fall 2019

Table 2 on the following page provides the specific data from which Charts 2 and 3 were derived. With respect to race/ethnicity, direct enrollment in transfer-level English increased from fall 2018 to fall 2019 for all racial/ethnic groups. **Latinx students had the most notable volume increase (29,502 more Latinx students, or +28 percentage points),** and there was a proportional increase for African American students (2,865 more African American students, or +32 percentage points).

Table 2. Enrollment in Transfer-Level English, Disaggregated by Student Group —Fall 2015 to Fall 2019

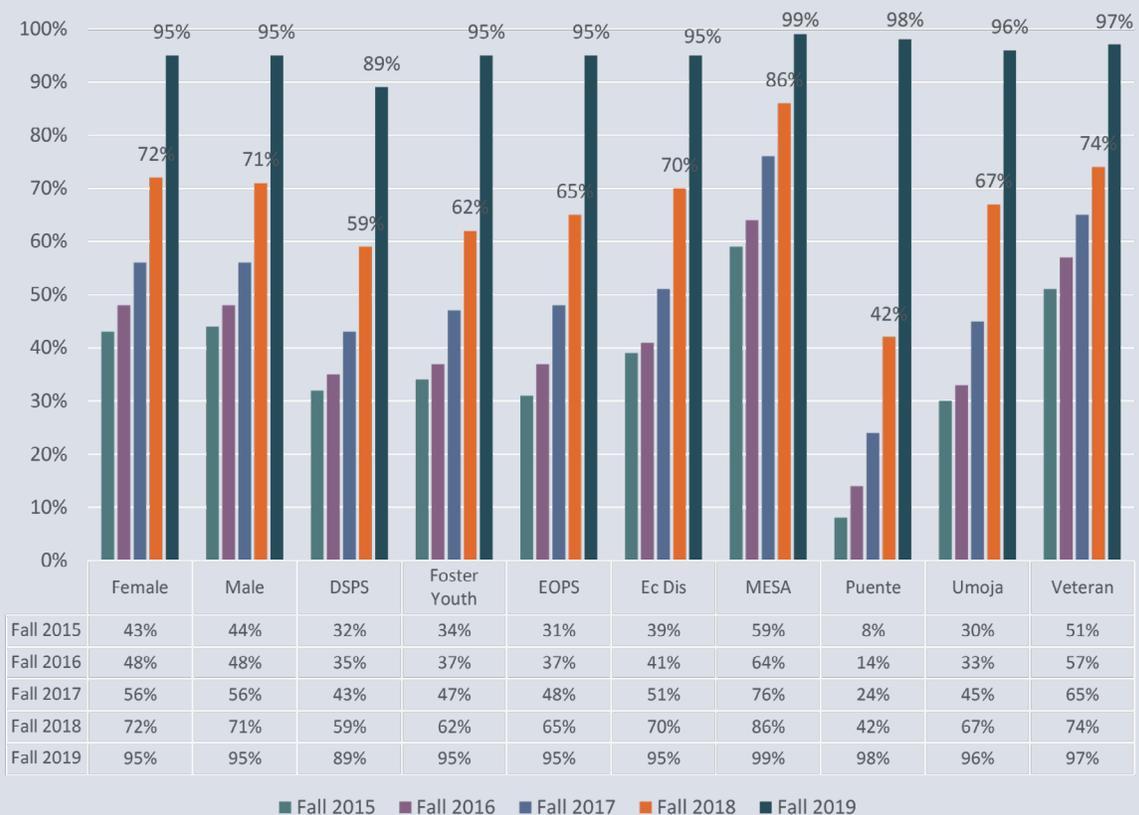|	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
African American	2,897	30%	3,422	37%	4,111	45%	5,468	60%	8,333	92%
Asian	9,719	49%	10,692	54%	12,593	63%	16,383	76%	19,945	95%
Latinx	28,948	35%	34,414	40%	43,717	49%	61,011	67%	90,513	95%
Native American	306	39%	293	38%	371	50%	519	70%	609	95%
Pacific Islander	251	33%	295	40%	407	53%	515	68%	776	95%
2+ Races	3,935	55%	4,644	60%	5,077	66%	5,960	77%	7,214	96%
White	23,234	60%	26,087	63%	27,987	69%	32,646	81%	34,437	96%
Unknown	1,497	48%	1,594	55%	2,319	59%	2,921	74%	10,540	96%
Gender										
Female	37,323	43%	41,581	48%	50,429	56%	66,097	72%	91,517	95%
Male	34,514	44%	38,561	48%	44,935	56%	57,775	71%	78,568	95%
Other/Unknown	951	47%	1,299	54%	1,218	59%	1,551	76%	2,282	95%
DSPS Status										
DSPS	4,059	32%	4,524	35%	5,591	43%	7,542	59%	10,756	89%
Not DSPS	68,729	45%	76,917	49%	90,991	57%	117,881	72%	161,611	96%
Foster Youth Status										
Foster Youth	1,247	34%	1,377	37%	1,661	47%	2,006	62%	4,528	95%
Not Foster Youth	71,541	44%	80,064	48%	94,921	56%	123,417	72%	167,839	95%
EOPS Status										
EOPS	6,328	31%	7,520	37%	9,928	48%	13,751	65%	18,207	95%
Not EOPS	66,460	46%	73,921	50%	86,654	57%	111,672	72%	154,160	95%
Economic Status										
Econ Dis	2,986	39%	3,937	41%	6,764	51%	12,395	70%	16,721	95%
Not Econ Dis	69,802	44%	77,504	49%	89,818	56%	113,028	72%	155,646	95%
MESA Status										
MESA	641	59%	705	64%	860	76%	932	86%	761	99%
Not MESA	72,147	44%	80,736	48%	95,722	56%	124,491	71%	171,606	95%
Puente Status										
Puente	83	8%	139	14%	289	24%	536	42%	1,283	98%
Not Puente	72,705	44%	81,302	48%	96,293	56%	124,887	72%	171,084	95%
Umoja Status										
Umoja	341	30%	449	33%	695	45%	1,125	67%	1,537	96%
Non Umoja	72,447	44%	80,992	48%	95,887	56%	124,298	71%	170,830	95%
Veteran Status										
Veteran	2,678	51%	2,810	57%	2,843	65%	2,908	74%	3,435	97%
Non Veteran	70,110	44%	78,631	48%	93,739	56%	122,515	71%	168,932	95%

Chart 4 below disaggregates enrollment in transfer-level *math* courses by race/ethnicity. In fall 2019, African American and Latinx students saw meaningful gains in direct enrollment in transfer-level math, both increasing by 42 percentage points (from 30% to 72% for African American students and 35% to 77% for Latinx students).

While differences between racial/ethnic groups in terms of direct enrollment in transfer-level math decreased substantially between fall 2018 and fall 2019, a gap still exists. The largest existing gap is between Asian students and African American students, though it is worth noting that this gap did decrease from 32 percentage points in fall 2018 (where it had been stagnant for three years) to 13 percentage points in fall 2019. The disparity between White and African American students, while still nine percentage points in fall 2019, decreased from 20 percentage points the year prior (fall 2018). A substantial narrowing of the equity gap was also seen between Asian and Latinx students, which decreased from 27 percentage points in fall 2018 to eight percentage points in fall 2019.

Furthermore, it is notable that **African American students have the lowest rate of enrollment in transfer-level math.** This suggests that these students are the largest group still being directed to pre-transfer-level courses, and their successful completion of the transfer-level course should be monitored. (See the tables A3 and A4 in the Appendix for rates disaggregated by SLAM and B-STEM math, respectively.)

Chart 4. Enrollment in Transfer-Level Math by Ethnicity—Fall 2015 to Fall 2019
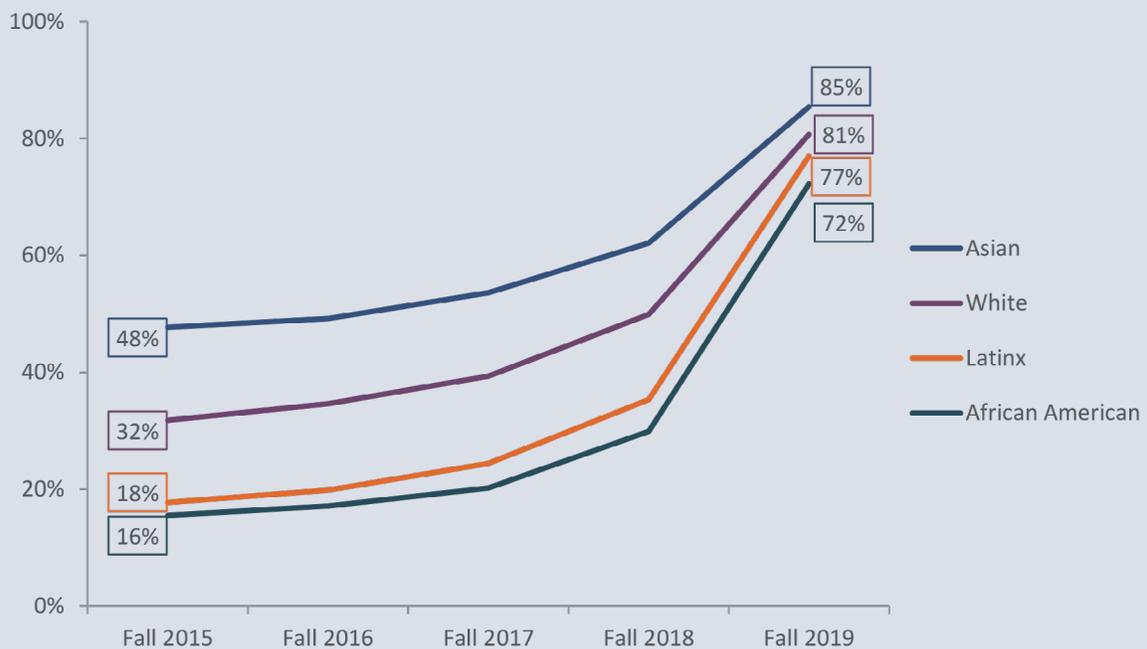
Note: Students of unknown race, Pacific Islander students, students of two or more races, and Native American students are not plotted, but are shown in Table 3.

Chart 5 on the next page disaggregates enrollment into transfer-level math courses as the first course taken in the discipline by different student groups. Again, all groups saw dramatic increases in direct transfer-level math enrollment from 2015 to 2019, with the largest year-to-year gain occurring between fall 2018 and fall 2019. Students in EOPS saw an increase in enrollment into transfer-level math of 43 percentage points (from 34% to 77%), while students in DSPS saw a gain of 39 percentage points (from 28% to 67%).

Chart 5. Enrollment in Transfer-Level Math by Student Group—Fall 2015 to Fall 2019

	Female	Male	DSPS	Foster Youth	EOPS	Ec Dis	MESA	Puente	Umoja	Veteran
Fall 2015	23%	29%	16%	17%	17%	20%	52%	26%	26%	22%
Fall 2016	25%	31%	17%	16%	19%	23%	54%	28%	28%	23%
Fall 2017	30%	34%	21%	22%	24%	28%	62%	32%	32%	25%
Fall 2018	41%	44%	28%	31%	34%	38%	72%	43%	43%	35%
Fall 2019	79%	80%	67%	69%	77%	75%	91%	79%	79%	69%

■ Fall 2015   ■ Fall 2016   ■ Fall 2017   ■ Fall 2018   ■ Fall 2019

Table 3 on the next page provides the specific data from which Charts 4 and 5 were derived, as well as the relative counts of each of the student groups.

Table 3. Enrollment in Transfer-Level Math, Disaggregated by Student Group—Fall 2015 to Fall 2019

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
African American	1,372	15%	1,488	17%	1,750	20%	2,406	30%	4,814	72%
Asian	10,205	48%	10,458	49%	11,179	54%	13,408	62%	17,344	85%
Latinx	14,164	18%	16,536	20%	20,814	24%	29,258	35%	55,812	77%
Native American	110	17%	128	19%	160	24%	208	33%	344	73%
Pacific Islander	125	17%	142	21%	188	27%	256	40%	528	79%
2+ Races	2,115	30%	2,439	33%	2,769	39%	3,507	48%	5,215	82%
White	13,258	32%	13,924	35%	15,465	39%	18,677	50%	24,652	81%
Unknown	1,385	42%	1,319	43%	1,673	39%	1,767	48%	7,026	82%
Gender										
Female	19,702	23%	21,310	25%	25,987	30%	34,455	41%	58,809	79%
Male	22,471	29%	24,402	31%	27,321	34%	34,155	44%	55,365	80%
Other/Unknown	561	27%	722	31%	690	35%	877	47%	1,561	80%
DSPS Status										
DSPS	1,890	16%	2,094	17%	2,571	21%	3,132	28%	5,819	67%
Not DSPS	40,844	27%	44,340	29%	51,427	33%	66,355	44%	109,916	80%
Foster Youth Status										
Foster Youth	606	17%	577	16%	721	22%	943	31%	2640	69%
Not Foster Youth	42,128	26%	45,857	28%	53,277	32%	68,544	43%	113,095	80%
EOPS Status										
EOPS	3,437	17%	3,800	19%	4,857	24%	6,705	34%	11,006	77%
Not EOPS	39,297	27%	42,634	29%	49,141	33%	62,782	44%	104,729	80%
Economic Status										
Econ Dis	1,479	20%	2,098	23%	3,450	28%	5,654	38%	10,157	75%
Not Econ Dis	41,255	26%	44,336	28%	50,548	33%	63,833	43%	105,578	80%
MESA Status										
MESA	574	52%	622	54%	693	62%	767	72%	724	91%
Not MESA	42,160	26%	45,812	28%	53,305	32%	68,720	43%	115,011	79%
Puente Status										
Puente	125	26%	128	28%	213	32%	317	43%	639	79%
Not Puente	42,609	16%	46,306	16%	53,785	24%	69,170	37%	115,096	84%
Umoja Status										
Umoja	177	26%	196	28%	254	32%	396	43%	764	79%
Non Umoja	42,557	18%	46,238	18%	53,744	21%	69,091	31%	114,971	80%
Veteran Status										
Veteran	1,223	22%	1,138	23%	1,129	25%	1,375	35%	2,174	69%
Non Veteran	41,511	26%	45,296	28%	52,869	32%	68,112	43%	113,561	79%

Successful Completion of Transfer-Level English and Math

First Course Completion Volume and Success Rate

This section seeks to answer two key questions:

1) *Among students whose first English or math course is at transfer level in the fall term of a given year, how does the volume of successful completions of transfer-level English or math courses within one year compare to student success in the same courses in prior years?*

2) *What are the success rates in transfer-level English or math within one year among students who enrolled directly into the course in each fall term?*

Below, Chart 6 illustrates the number of students in each fall cohort who successfully completed a transfer-level English or math course within one year when a transfer-level course was the first course in which they enrolled. Successful completion is defined as a grade of A, B, C, CR, or P.

For transfer-level English, the year-over-year completions rose by 26,103 students from fall 2018 to fall 2019, a 28% increase (from 93,918 to 120,021 students). In transfer-level math courses, 22,193 additional students in fall 2019 successfully completed the course within one year compared to fall 2018, a 47% increase (from 46,938 to 69,131 students). The growth in completions found between 2018 and 2019 suggests that **the implementation of AB 705 sped up the growth in the number of students completing transfer-level English and math courses.**

Chart 6. Number of Successful Completions in Transfer-Level English or Math Over Time
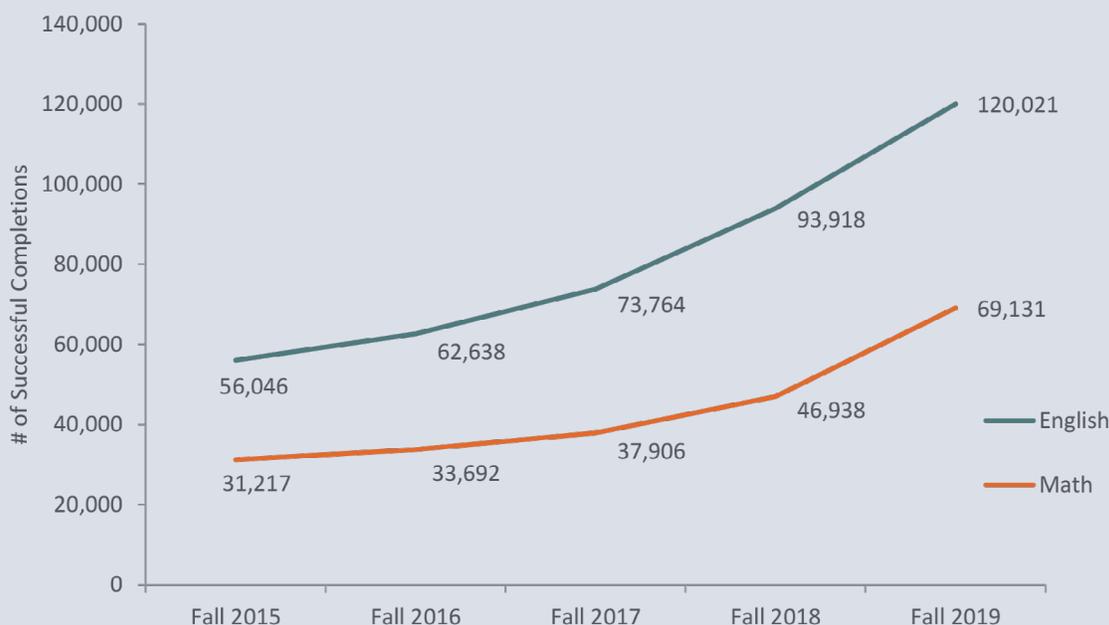

Table 4 on the next page provides the information which was used to create Chart 6. It includes the number and percentage of students who directly enrolled in and completed transfer-level

English and math courses within one year. It also provides the year-to-year change in the number of students successfully completing these courses.

It is worth noting that **while the *number* of both enrolled students and successful completers increased substantially from fall 2015 to fall 2019, success *rates* for transfer-level English and math have decreased somewhat.** With such a large increase in the number of students enrolled in transfer-level English and math, one might expect success rates to decrease substantially, as perhaps some of those students would have found themselves unprepared for the rigor of transfer-level coursework. However, the drop in English and math success rates from fall 2018 to fall 2019 (five and eight percentage points, respectively) is countered by the 28% increase in the number of total successful completions in English and 47% increase in the number of total successful completions in math in that same timeframe.

Table 4. Number and Percentage of Successful Completions of Transfer-Level English and Math Courses by Cohort—Fall 2015 to Fall 2019

Term	Successful Completions	Total Enrollments	Success Rate	Additional Successful Completions from Prior Fall Cohort
English				
Fall 2015	56,046	72,788	77%	—
Fall 2016	62,638	81,441	77%	6,592
Fall 2017	73,764	96,582	76%	11,126
Fall 2018	93,918	125,423	75%	20,154
Fall 2019	120,021	172,367	70%	26,103
Math				
Fall 2015	31,217	42,734	73%	—
Fall 2016	33,692	46,434	73%	2,475
Fall 2017	37,906	53,998	70%	4,214
Fall 2018	46,938	69,487	68%	9,032
Fall 2019	69,131	115,735	60%	22,193

Note: Success is defined as earned grade of A, B, C, CR, or P.

Chart 7 on the next page disaggregates the number of successful completions within one year in transfer-level English by race/ethnicity. Between fall 2018 and fall 2019 alone, 15,587 additional Latinx students successfully completed their English courses, representing a 37% increase in the number of Latinx students completing transfer-level English. Among African American students, 1,283 more completed transfer-level English among the fall 2019 cohort than the fall 2018 cohort. While much smaller in volume than the increase for Latinx students, this growth represents a 36% increase in the number of African American students completing transfer-level English.

Chart 7. Number of Successful Completions of Transfer-Level English, Disaggregated by Ethnicity—Fall 2015 to Fall 2019
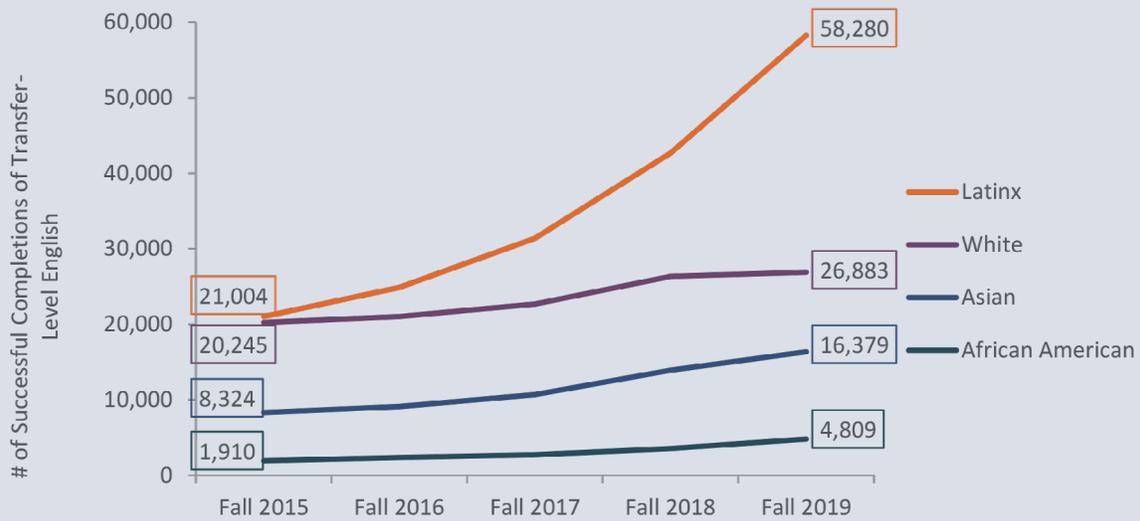
Chart 8 below disaggregates the number of successful completions in transfer-level math by race/ethnicity over time. **Over three times as many Latinx students who started directly at transfer-level in fall 2019 successfully completed their math courses within a year relative to those in the fall 2015 cohort.** Similarly, **more than 2.5 times as many African American students who started directly at transfer-level in fall 2019 successfully completed their math courses within a year** relative to the fall 2015 cohort.

Chart 8. Number of Successful Completions of Transfer-Level Math, Disaggregated by Ethnicity—Fall 2015 to Fall 2019
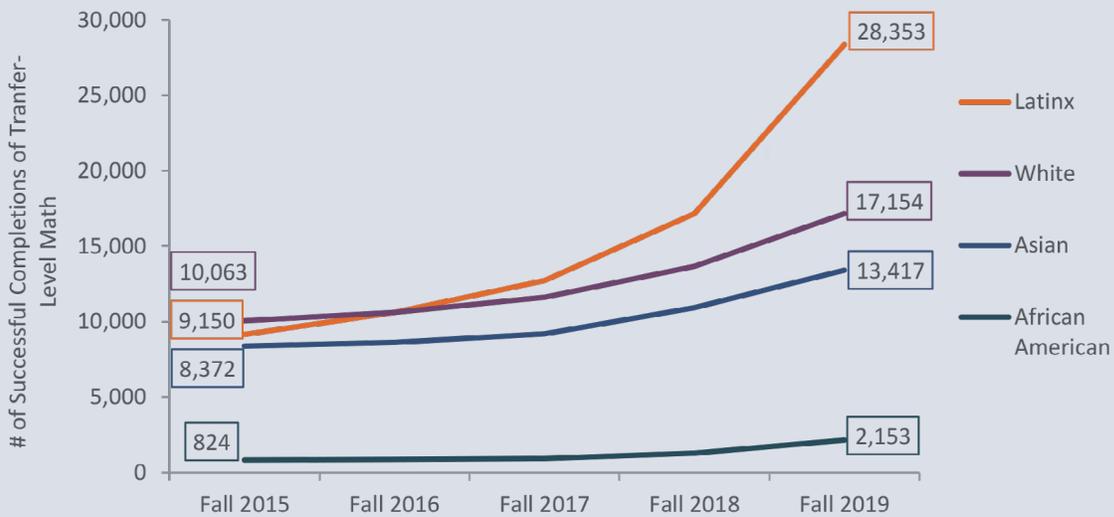
Chart 9 on the next page offers more detail on math course completion, focusing specifically on SLAM and B-STEM courses. Breaking math completion down by course type reveals **that the largest year-over-year increase in transfer-level math completion comes in the area of SLAM,** whereby an additional 14,890 students in fall 2019 completed their SLAM course within one year compared to students in fall 2018, a 68% increase.

With respect to B-STEM, **an additional 4,366 students in fall 2019 successfully completed their B-STEM courses within one year compared to fall 2018, an 18% increase.** Thus, while approximately 23,000 students in the fall 2018 cohort completed both B-STEM and SLAM math courses within one year, completion of transfer-level SLAM math courses grew substantially more in 2019 than did completion of B-STEM math courses.

Chart 9. Number of Successful Completions in Transfer-Level B-STEM and SLAM Math Courses—Fall 2015 to Fall 2019

Table 5 on the next page offers the specific data used to develop Chart 7. It includes the number of students who enrolled directly in transfer-level SLAM and B-STEM math courses, the number and percentage of students who successfully completed those courses within one year, and the year-over-year change in the number of students successfully completing transfer-level SLAM and B-STEM math courses within one year.

Following the overall math trend, while the *number* of both enrolled students and successful completers increased from fall 2015 to fall 2019 (most notably in SLAM math courses), success rates for both course types have decreased somewhat. However, **the drop in both SLAM and B-STEM course success rates from fall 2018 to fall 2019 (nine and seven percentage points, respectively) is countered by the 68% increase in the number of total successful completions in SLAM math courses and 18% increase in the number of total successful completions in B-STEM math courses in that same timeframe.**

Table 5. Number and Percent of Successful Completions of Transfer-Level SLAM and B-STEM Math Courses by Cohort—Fall 2015 to Fall 2019

Term	Successful Completions	Total Enrollment	Success Rate	Additional Successful Completions from Prior Fall
SLAM				
Fall 2015	11,399	15,447	74%	—
Fall 2016	13,047	17,845	73%	1,648
Fall 2017	15,890	22,540	70%	2,843
Fall 2018	22,034	32,537	68%	6,144
Fall 2019	36,924	62,471	59%	14,890
B-STEM				
Fall 2015	19,064	26,048	73%	—
Fall 2016	19,857	27,224	73%	793
Fall 2017	21,193	29,944	71%	1,336
Fall 2018	23,786	34,751	68%	2,593
Fall 2019	28,152	45,825	61%	4,366

Note: Success is defined as receiving grades of A, B, C, CR, and P.

Below, Chart 10 illustrates the number of students who successfully completed transfer-level SLAM math courses in one year, disaggregated by race/ethnicity. Again, substantial increases were seen across racial/ethnic groups in the fall 2019 cohort relative to fall 2018. During that timeframe, **7,627 additional Latinx students successfully completed a transfer-level SLAM math course, an 82% increase** (from 9,324 students to 16,951). Among **African American students, successful completions increased by 677 students, a 97% increase** (from 698 students to 1,375). (See Table A6 in the Appendix for a full accounting of the number and percentages of successful completions of transfer-level SLAM math courses, disaggregated by student groups.)

Chart 10. Number of Successful Completions of Transfer-Level SLAM Math Courses, Disaggregated by Ethnicity—Fall 2015 to Fall 2019
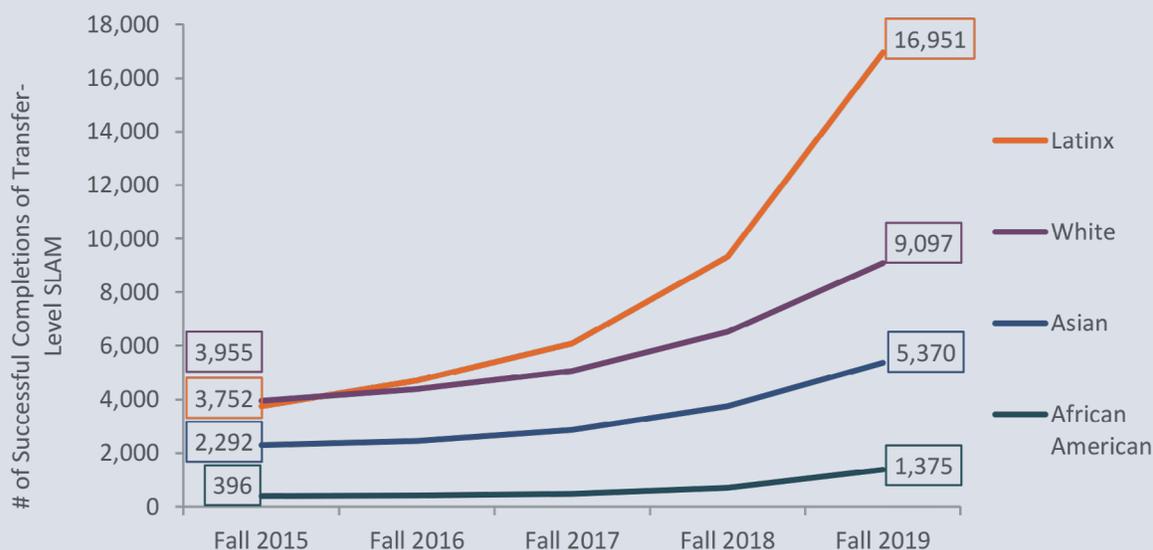
With regards to B-STEM math, as displayed below in Chart 11, between fall 2018 and fall 2019, only Latinx and African American students demonstrated large gains in completion volume. In fall 2019, **2,313 additional Latinx students successfully completed a transfer-level B-STEM math course compared to fall 2018, a 32% increase** (from 7,228 students to 9,541). Further, while only an additional 149 African American students completed B-STEM math courses in fall 2019 relative to fall 2018, this shift represents a 29% increase. (Please see Table A7 in the Appendix for a full accounting of the number and percentages of successful completions of transfer-level B-STEM math courses, disaggregated by student groups.)

Chart 11. Number of Successful Completions of Transfer-Level B-STEM Math Courses, Disaggregated by Ethnicity—Fall 2015 to Fall 2019
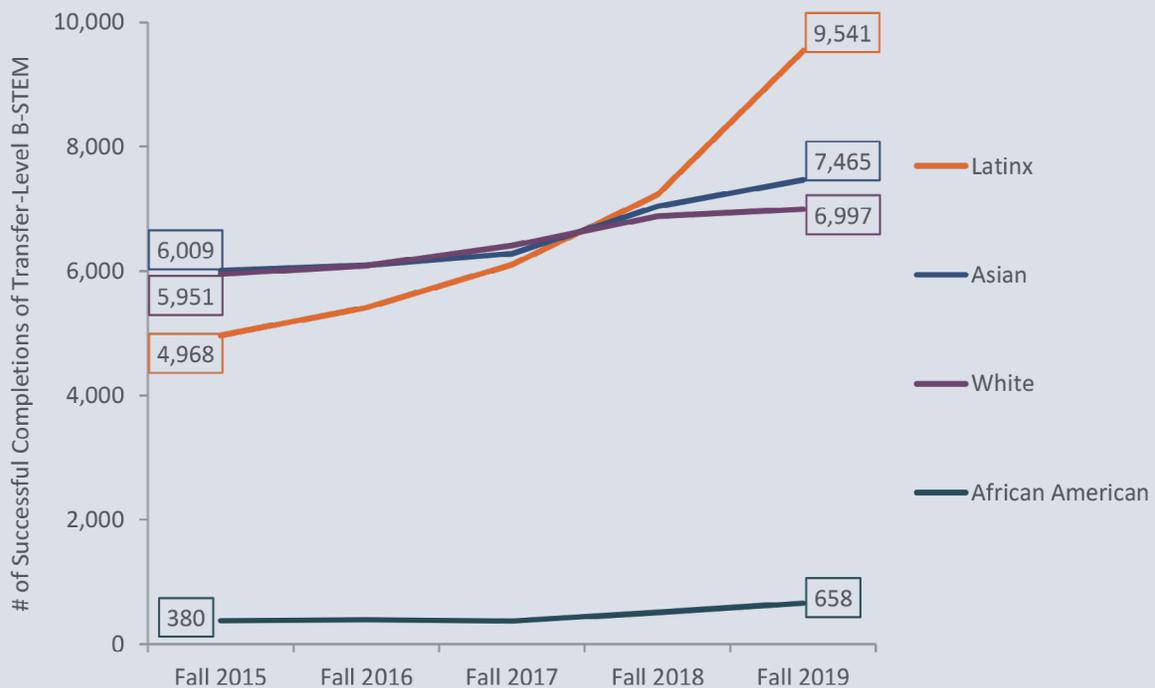
Throughput

This section explores one-year throughput rates (also known as full cohort success rates) for transfer-level English and math among students between 2015 and 2019. Throughput rates here describe the proportion of students who take and pass *transfer-level* courses within one year of first attempting to do so out of the *full* cohort of incoming students who take *any* level course (basic skills through transfer).

The following research questions were examined:

> *What are the throughput rates for transfer-level English and math courses, with throughput defined as the rate in which students attempting their first English or math course at any level complete the transfer-level course within one year? How does throughput differ by incoming GPA?*

THROUGHPUT RATES IN ENGLISH COURSES

Chart 12 below displays the one-year English throughput rate for fall cohorts from 2015 through 2019. As shown, one-year throughput rates have been growing consistently over time, with the largest surges occurring between fall 2017 and 2018 (seven percentage points) and fall 2018 and 2019 (five percentage points). **This increase suggests that the implementation of AB 705 has had a positive impact on throughput rates in transfer-level English.**

Chart 12. One-Year Throughput Rates for Transfer-Level English—Fall 2015 to Fall 2019
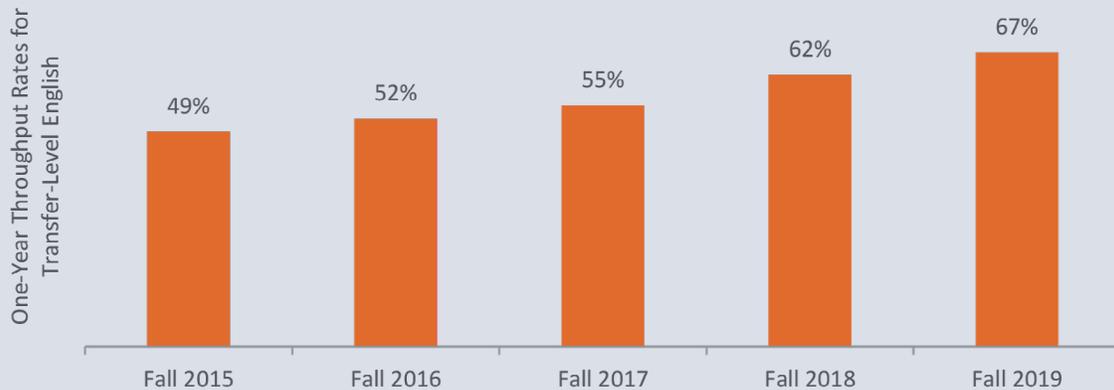
Next, Chart 13 illustrates the one-year English throughput rates by students' high school GPA. English throughput increased for students across all GPA bands from 2015 to 2019. However, for students in the middle and lowest GPA bands, the largest year-over-year increase in throughput was seen between fall 2018 and fall 2019. This finding suggests that **the full implementation of AB 705 has been particularly impactful for students with an incoming high school GPA of less than 2.6, and the greatest impact has been felt by students in the lowest GPA band.**

Chart 13. One-Year Throughput Rates for Transfer-Level English by GPA Band—Fall 2015 to Fall 2019
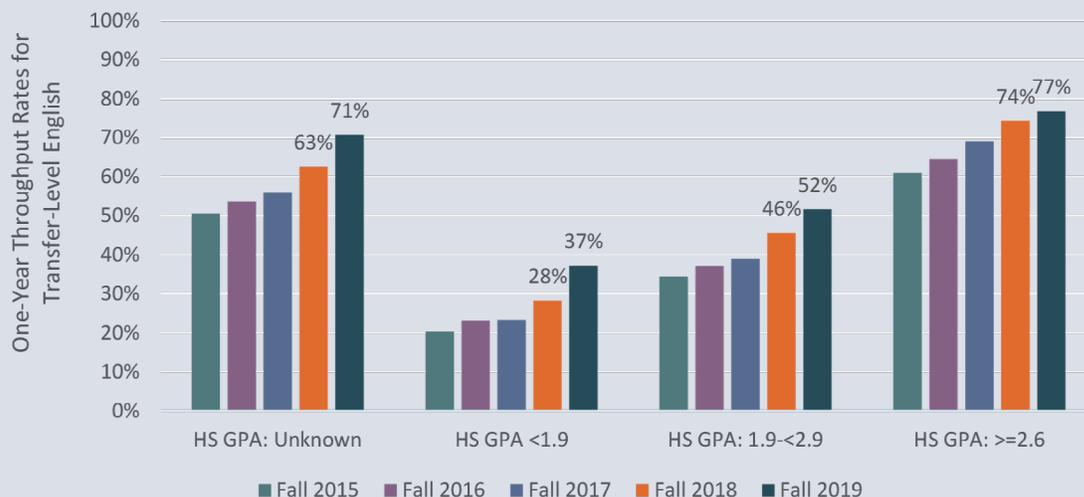
Chart 14 below shows the change in one-year throughput rates for transfer-level English by ethnicity. **Despite the overall growth in one-year throughput rates within each racial/ethnic group, gaps between the groups have only decreased slightly.** For example, the gap between African-American and White students in the fall 2015 cohort was 29 percentage points, and in the fall 2019 cohort it was 22 percentage points. Similarly, the gap between Latinx and Asian students in 2015 was 20 percentage points, and in 2019 it remained at 17 percentage points. **Thus, while results asre trending in the right direction, much more work needs to be done with respect to closing equity gaps in English throughput.**

Chart 14. One-Year Throughput Rates for Transfer-Level English by Ethnicity—Fall 2015 to Fall 2019
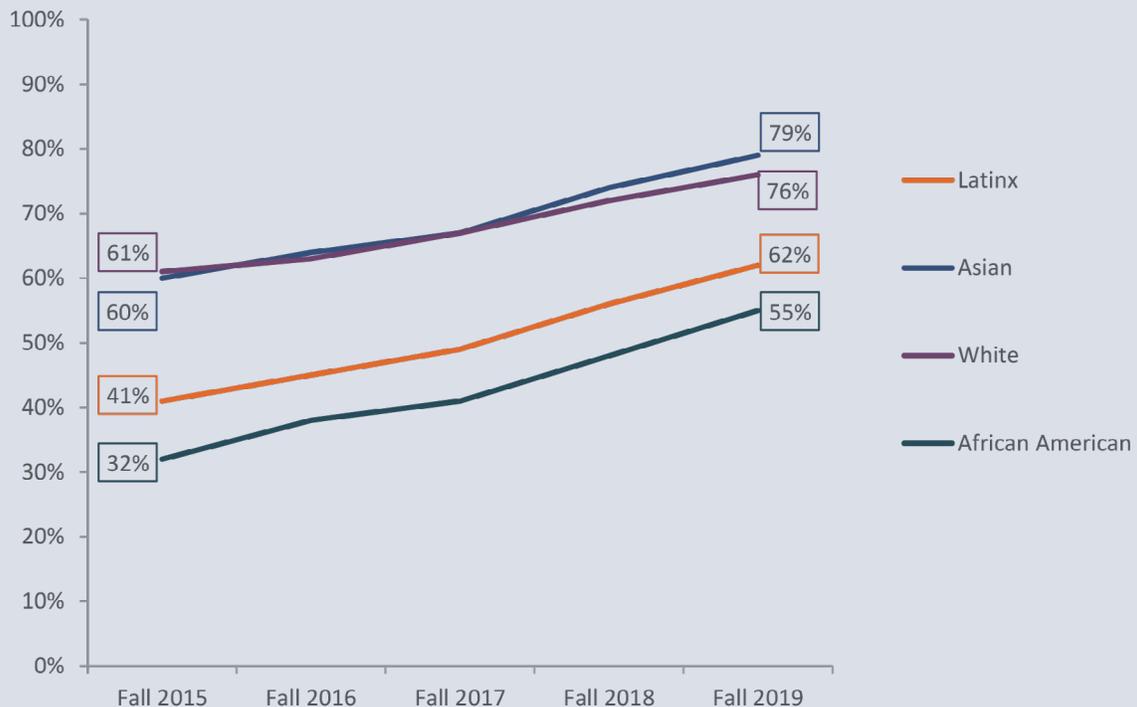
Chart 15 on the next page breaks out the one-year English throughput rate into more detail (also see Table A8 in the Appendix for more information). With the exception of MESA (where throughput was already far above average), **one-year throughput rates increased for all groups between fall 2018 and fall 2019, with especially notable gains among foster youth and students enrolled in Puente.**

Chart 15. One-Year Throughput Rates for Transfer-Level English by Student Group—Fall 2015 to Fall 2019

	Female	Male	DSPS	EOPS	Foster Youth	MESA	Veteran	Puente	Umoja
Fall 2015	51%	46%	37%	46%	33%	77%	54%	67%	48%
Fall 2016	54%	49%	41%	50%	36%	82%	58%	66%	49%
Fall 2017	58%	52%	44%	55%	39%	84%	62%	67%	53%
Fall 2018	65%	59%	52%	65%	45%	89%	67%	70%	60%
Fall 2019	70%	64%	58%	69%	57%	85%	74%	83%	65%

■ Fall 2015   ■ Fall 2016   ■ Fall 2017   ■ Fall 2018   ■ Fall 2019

On the next page, Charts 16a and 16b illustrate the proportion of students who passed transfer-level English within one term, one year, two years, and three years, broken out by those who were placed directly into transfer-level English (Chart 16a) and those who began one level below transfer-level English (Chart 16b). It is useful to look at these two groups because many students who placed directly into transfer-level English after AB 705 was implemented would likely have started one level below transfer without the AB 705 mandates.

A comparison of these charts reveals that 70% of students passed transfer-level English in one year in fall 2019, which is lower than the 75% who passed in one year in 2018. Nonetheless, the 2019 throughput rate of 70% is substantially higher than the 37% of students starting one-level below transfer-level English in 2017-18 who passed transfer-level English within one year (before colleges started making substantial changes in preparation for AB 705). These findings suggest that **students have an increased likelihood of passing transfer-level English in a shorter period of time if placed directly into the course.** (See Table A10 in the Appendix for more details on transfer-level English throughput by starting level.)

Chart 16a. Successful Completion of Transfer-Level English Among Students Starting at Transfer-Level—2015 to 2019

Legend: 1 Term, 1 Year, 2 Years, 3 Years

2015-16: 73%, 77%, 80%, 80%
2016-17: 73%, 77%, 79%, 80%
2017-18: 72%, 76%, 79%
2018-19: 70%, 75%
2019-20: 66%, 70%

Chart 16b. Successful Completion of Transfer-Level English Among Students Starting One Level Below Transfer-Level—2015 to 2019

Legend: 1 Term, 1 Year, 2 Years, 3 Years

2015-16: 39%, 51%, 54%
2016-17: 39%, 51%, 54%
2017-18: 37%, 49%
2018-19: 35%
2019-20: 25%

THROUGHPUT RATES IN MATH COURSES

Chart 17 on the following page displays the one-year throughput rates for transfer-level math courses among students whose first enrollment in math was in fall of that year at *any starting level*. As shown, one-year throughput rates grew slowly from fall 2015 to fall 2017, followed by a larger increase between 2017 and 2018, and then an even more substantial increase from fall 2018 to fall 2019. The fall 2019 cohort's one-year throughput rate of 50% is 15 percentage points above the next highest rate of 35% in fall 2018. **As with English, this finding suggests that the implementation of AB 705 has had a positive impact on throughput rates in transfer-level math.**

Chart 17. One-Year Throughput Rates for All Transfer-Level Math—Fall 2015 to Fall 2019
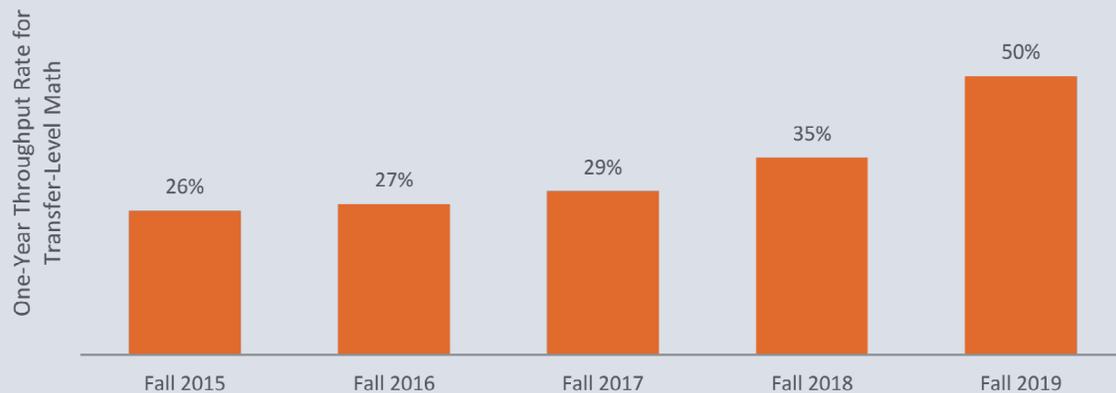
Chart 18 displays the one-year math throughput rates broken out by students' high school GPA. **For all GPA bands, the largest year-over-year increase in throughput seen to date took place from fall 2018 to fall 2019.** Students in the middle and lowest GPA bands saw especially large jumps in throughput rates during this time (14 and 11 percentage points, respectively). This finding suggests that the full implementation of AB 705 has been particularly impactful for students with an incoming high school GPA of less than 3.0.

Chart 18. One-Year Throughput Rates for Transfer-Level Math by GPA Band—Fall 2015 to Fall 2019
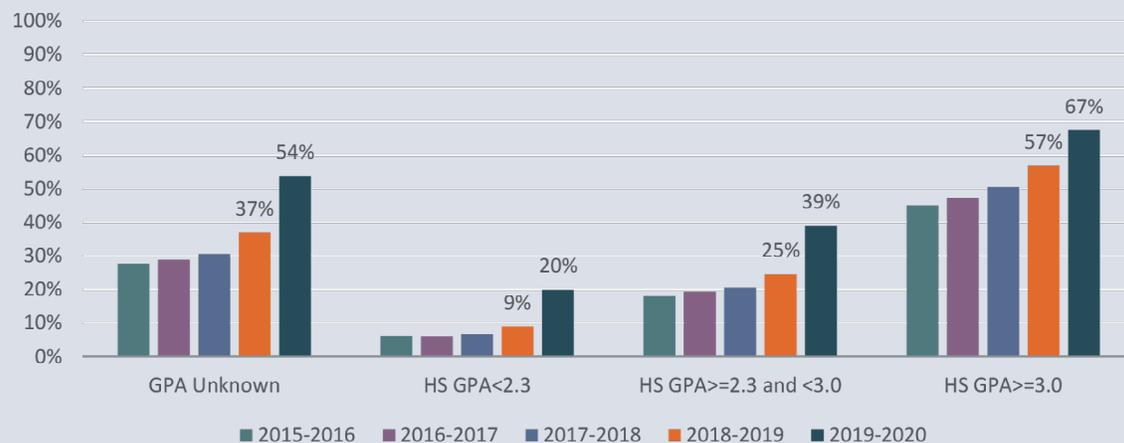
On the next page, Chart 19 demonstrates the change in one-year throughput rates for transfer-level math by race/ethnicity. Just as was seen with English throughput rates, **the overall growth in one-year throughput rates within each racial/ethnic group has neither eliminated nor substantially lessened gaps *between* the groups.** For example, the gap between African-American and Asian students in the fall 2015 cohort was 35 percentage points, and in 2019 that gap remained exactly the same. The disparity between Latinx and White students actually *grew* by two percentage points—in the fall 2015 cohort, the gap was 15 percentage points, and for the fall 2019 cohort, it was 17 percentage points.

Chart 19. One-Year Throughput Rates for Transfer-Level Math by Ethnicity—Fall 2015 to Fall 2019
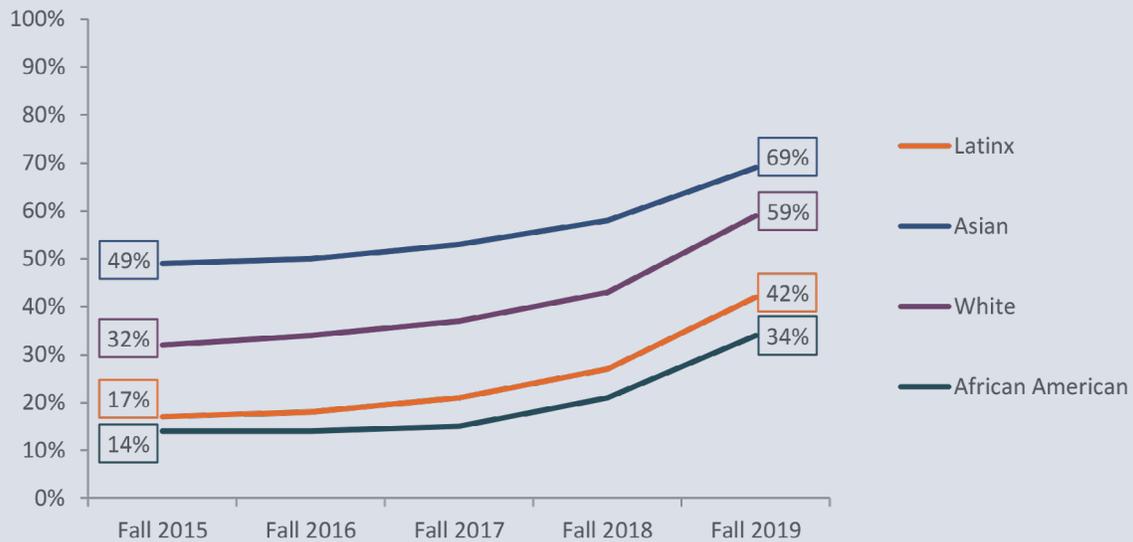
Chart 20 displays the one-year throughput rate broken out by student group (see Table A9 in the Appendix for more details). As with English, with the exception of MESA (where throughput was already above average), one-year throughput rates increased for all groups between fall 2018 and fall 2019, with especially notable gains among veterans and students enrolled in Puente.

Chart 20. One-Year Throughput Rates for Transfer-Level Math Over Time by Student Group

	Female	Male	DSPS	EOPS	Foster Youth	MESA	Veteran	Puente	Umoja
Fall 2015	25%	27%	15%	21%	15%	65%	23%	19%	19%
Fall 2016	26%	28%	17%	21%	14%	66%	24%	21%	18%
Fall 2017	29%	30%	19%	25%	18%	70%	27%	23%	19%
Fall 2018	35%	35%	23%	32%	23%	72%	34%	34%	26%
Fall 2019	51%	48%	39%	48%	36%	70%	51%	53%	41%

■ Fall 2015 ■ Fall 2016 ■ Fall 2017 ■ Fall 2018 ■ Fall 2019
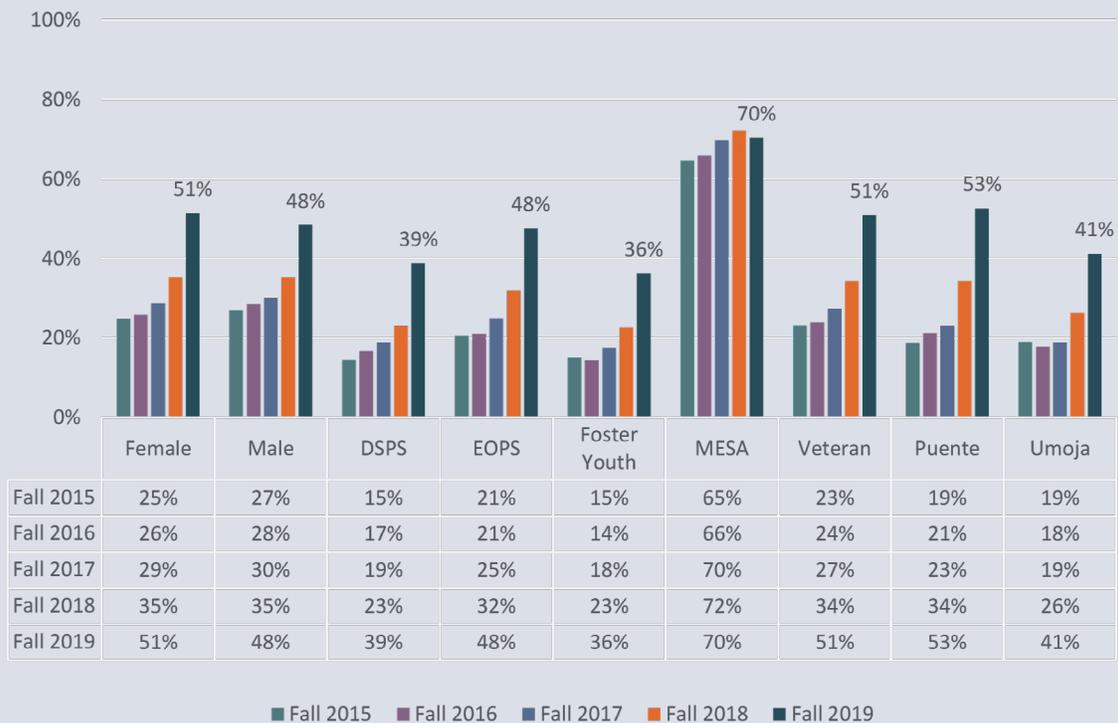
Charts 21a and 21b below examine the proportion of students who passed transfer-level math within one term, one year, two years, and three years, broken out by those who placed directly into transfer-level math (Chart 21a) and those who were began one-level below transfer-level math (Chart 21b).

A comparison of Charts 21a and 21b reveals that in fall 2019, 60% of students who enrolled directly into transfer-level math passed in one year. While the 2019 throughput rate among these students was lower than the 68% achieved the year before, it is nonetheless substantially higher than the 22% of students starting one-level below transfer-level math in 2017-18 who passed within one year (before colleges started making substantial changes in preparation for AB 705). (See Table A11 in the Appendix for more details on transfer-level math throughput by starting level.)

Chart 21a. Successful Completion of Transfer-Level Math Among Students Who Started at Transfer-Level—Fall 2015 to Fall 2019

Chart 21b. Successful Completion of Transfer-Level Math Among Students Who Started One Level Below Transfer-Level—Fall 2015 to Fall 2019

Conclusion

Now that the full implementation of AB 705 has arrived, community colleges across California have put into place approaches to assessment and placement that align with the mandates of the law. Administrators, faculty, and staff are eager to know how their work to meet the requirements of AB 705 will impact student outcomes. As such, while this report examines changes in student outcomes that have taken place from fall 2015 to fall 2019, focusing **in particular on substantial movement that took place between 2018 and 2019, when all colleges were expected to implement AB 705. By looking at trends over the past five years, as well as any changes that occurred specifically in the past year, this report sought to provide insight into the impact of AB 705 on both CCCs and their students.**

While it is difficult to tease out the impact of AB 705 from systemwide trends or the effects of other initiatives, there is a strong likelihood that shifts that occurred between 2018 and 2019 to a substantially greater degree than in previous years are to a large extent the result of AB 705. By tracking these sizable increases or decreases in outcomes such as enrollment, course success, and throughput, **early findings indicate that AB 705 has thus far had a positive impact on many, but not all, key student outcomes.**

Research Limitations

There are several limitations to this study that are important to keep in mind when analyzing its findings. First, this research presents a snapshot in time and can only be applied to what was happening within the system during the timeframe of analysis. Further, interpretation of longitudinal data comes with the caveat that the onset of the COVID-19 pandemic occurred in spring 2020, precipitating a number of significant changes throughout the CCC system.

Second, this study was not able to include every potentially relevant math course. The study looked only at transfer-level math courses, which excludes intermediate algebra, a course that can be used to satisfy local degree requirements. Four percent of math courses did not fall within the SLAM or B-STEM categories, including courses like Arithmetic and Combined Elementary and Intermediate Algebra. Courses that appeared to cover content that was below transfer-level and which had apparently been miscoded as transfer-level (e.g., arithmetic) were not coded as either SLAM or B-STEM. Moving forward, new data elements will be available that will help with the identification of additional courses in other TOP codes that meet transfer requirements. Inclusion of support courses will also be possible in the future due to the creation of a new MIS data element designed to identify support courses.

Third, throughput rates were calculated by dividing the number of students who completed a transfer-level gateway class in a given subject within one year of their initial attempt in the sequence by the number of students taking a course at any level in that subject. If students' first transfer-level attempt was unsuccessful, only their second transfer-level attempt was included in the data file (and thus the numerator of this calculation). Therefore, throughput rates described in this report could be slightly underestimating the true effect, as it is feasible that some students could attempt to pass a transfer-level course more than two times within one year (especially across colleges or districts, or at colleges on the quarter system).

Enrollment

This research shows that there have been dramatic shifts in enrollment, in fall 2019 in particular. **Across all student groups, enrollment in transfer-level English and math courses sharply increased from fall 2017 to fall 2018 (as colleges prepared for AB 705 implementation) and grew even more between fall 2018 and fall 2019 (upon full implementation).** Specifically, in fall 2019, enrollment in transfer-level English and math courses as students' first course in the discipline increased among all racial/ethnic groups **at the greatest rate over the past five fall terms, nearly eliminating equity gaps in transfer-level English enrollment.** However, **racial/ethnic gaps have not narrowed as readily in transfer-level math enrollment.**

Success

Students who would have been assigned to developmental education pre-AB 705 are now enrolling directly into transfer-level classes. Some concern about the impact of this increased enrollment on student success is of course reasonable. This study shows that there has in fact been a decrease in student success rates in both English and math courses. This finding suggests that in order to pass transfer-level courses, some students may need more support or support of a different nature than is currently available to them.

However, the decrease in student success rates must be viewed alongside the dramatic increase in the sheer number of students both enrolling in and successfully completing transfer-level courses. When examining the volume of successful completers, the results indicate that **the implementation of AB 705 has produced far more students successfully completing transfer-level English and math (SLAM more so than B-STEM) than ever before.**

The magnitude of this increased volume is apparent in throughput rates. When comparing students in each fall term who started at any level of English or math course and successfully completed transfer-level English and math within one year, **throughput rates are improving as more students are being directly placed into transfer-level courses.** Such increases are especially notable among students in lower GPA bands as well as students in groups with historically lower throughput rates.

Persistent Equity Issues

While the data in this report are encouraging across various indicators, not all demographic groups are experiencing the benefits of AB 705 equally, and therefore targeted attention to these findings is needed. Despite gains across all racial/ethnic groups in terms of enrollment and success in transfer-level courses, **equity gaps between those groups persist, especially in math courses.** It is critical to keep a close eye on equity, continuing to measure gaps between student groups and focusing additional resources on closing those gaps.

Next Steps and Implications

As more data become available, local as well as statewide analyses should survey the various approaches colleges are taking to support students both in and out of the classroom, with

particular attention paid to those colleges where equity gaps are closing. Throughput data, disaggregated by high school performance band and student groups, will be extremely valuable in comparing how a particular support or curricular structure is working with different students. Increased attention should be paid to students in the middle and lowest GPA bands—who are often from marginalized groups—to ensure that the innovative supports directed to these students are resulting in increased completion of transfer-level English and math within one year.

Moreover, instructional and counseling faculty—along with academic and student services deans—should work collaboratively with their institutional research, planning, and effectiveness offices, engaging in discussions about how the data reflect on the impact of current processes and practices. Colleges also need to continue to monitor additional outcomes, including success in subsequent courses, enrollment trends, financial aid usage, academic standing, degree completion, transfer, and employment.

Research and Planning Group for California Community Colleges

Authors

Katie Brohawn, RP Group

Mallory Newell, De Anza College

Loris Fagioli, RP Group

Appendix

Table A1. Enrollment in Transfer-Level SLAM of Students Whose First Enrollment in the Discipline Is at Transfer Level by Cohort—Fall 2015 to Fall 2019

Term	Total Students in SLAM	Total Enrollment in Transfer-Level Math	Percent in SLAM Math
Fall 2015	15,447	42,734	36%
Fall 2016	17,845	46,434	38%
Fall 2017	22,540	53,998	42%
Fall 2018	32,537	69,487	47%
Fall 2019	62,471	115,735	54%

Table A2. Enrollment in Transfer-Level B-STEM Math of Students Whose First Enrollment in the Discipline Is at Transfer Level by Cohort—Fall 2015 to Fall 2019

Term	Total Students in B-STEM Math	Total Enrollment in Transfer-Level Math	Percent in B-STEM Math
Fall 2015	26,048	42,734	61%
Fall 2016	27,244	46,434	59%
Fall 2017	29,944	53,998	55%
Fall 2018	34,751	69,487	50%
Fall 2019	45,825	115,735	40%

Note: B-STEM refers to math for business, science, technology, engineering, and mathematics. SLAM refers to statistics and liberal arts math.

Table A3. Enrollment (Number and Percent) of Students in SLAM Among Those Whose First Enrollment in the Math is at Transfer Level, Disaggregated by Student Group—Fall 2015 to Fall 2019

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
Asian	2,777	27%	2,997	29%	3,474	31%	4,641	35%	7,073	41%
African American	630	46%	692	47%	879	50%	1,285	53%	2,971	62%
Latinx	5,637	40%	7,093	43%	9,662	46%	15,311	52%	32,492	58%
Native American	53	48%	57	45%	74	46%	101	49%	200	58%
Pacific Islander	53	42%	63	44%	94	50%	137	54%	330	63
Two or More	839	40%	925	38%	1,210	44%	1,661	47%	2,736	52%
White	5,078	38%	5,621	40%	6,606	43%	8,733	47%	12,988	53%
Unknown	380	27%	397	30%	541	32%	668	38%	3,681	52%
Gender										
Female	9,156	46%	10,551	50%	13,571	52%	19,688	57%	37,305	63%
Male	6,091	27%	7,035	29%	8,692	32%	12,460	36%	24,373	35%
Other/Unknown	200	36%	259	36%	277	40%	389	44%	793	51%
DSPS Status										
DSPS	647	34%	800	38%	1,054	41%	1,523	49%	3,540	61%
Not DSPS	14,800	36%	17,045	38%	21,486	42%	31,014	47%	58,931	54%
Foster Youth Status										
Foster Youth	231	38%	222	38%	300	42%	485	51%	1,323	50%
Not Foster Youth	15,216	36%	17,623	38%	22,240	42%	32,052	47%	61,148	54%
EOPS Status										
EOPS	1,193	35%	1,527	40%	2,151	44%	3,394	51%	6,716	61%
Not EOPS	14,254	36%	16,318	38%	20,389	41%	29,143	46%	55,755	53%
Economic Status										
Econ Dis	451	30%	451	29%	1,217	35%	2,562	45%	5,701	56%
Not Econ Dis	14,996	36%	17,229	39%	21,323	42%	29,975	47%	56,770	54%
MESA Status										
MESA	69	12%	59	9%	81	12%	88	11%	87	12%
Not MESA	15,378	36%	17,786	39%	22,459	42%	32,449	47%	62,384	54%
Puente Status										
Puente	60	48%	66	52%	113	53%	171	54%	411	64%
Not Puente	15,387	36%	17,779	38%	22,427	42%	32,366	47%	62,060	54%
Umoja Status										
Umoja	67	38%	81	41%	113	44%	234	59%	533	70%
Non Umoja	15,380	36%	17,764	38%	22,427	42%	32,303	47%	61,938	54%
Veteran Status										
Veteran	505	41%	436	38%	485	43%	637	46%	1,124	52%
Non Veteran	14,942	36%	17,409	38%	22,055	42%	31,900	47%	61,347	54%

Note: Native American includes Native Alaskan; Pacific Islander includes Native Hawaiian. Cells present the number and percentage of students in a given cohort with a given characteristic who first enrolled in a transfer-level course.

Table A4. Enrollment (Number and Percent) of Students in B-STEM Among Those Whose First Enrollment in Math is at Transfer Level, Disaggregated by Student Group—Fall 2015 to Fall 2019

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
African American	620	45%	677	45%	724	41%	956	40%	1,521	32%
Asian	7,341	72%	7,369	70%	7,632	68%	8,580	64%	9,451	54%
Latinx	7,822	55%	8,581	52%	10,177	49%	12,689	43%	19,421	35%
Native American	51	46%	60	47%	82	51%	91	44%	104	30%
Pacific Islander	71	57%	75	53%	91	48%	108	42%	171	32%
Two or More	1,230	58%	1,471	60%	1,509	54%	1,803	51%	2,136	41%
White	7,927	60%	8,108	58%	8,627	56%	9,505	51%	10,016	41%
Unknown	986	71%	903	68%	1,102	66%	1,019	58%	3,005	43%
Gender										
Female	9,821	50%	10,050	47%	11,567	45%	13,697	40%	17,766	30%
Male	15,877	71%	16,748	69%	17,977	66%	20,595	60%	27,387	49%
Other/Unknown	350	62%	446	62%	400	58%	459	52%	672	43%
DSPS Status										
DSPS	1,080	57%	1,154	55%	1,353	53%	1,445	46%	1,882	32%
Not DSPS	24,968	61%	26,090	59%	28,591	56%	33,306	50%	43,943	40%
Foster Youth Status										
Foster Youth	349	58%	328	57%	390	54%	419	44%	1,143	43%
Not Foster Youth	25,699	61%	26,916	59%	29,554	55%	34,332	50%	44,682	40%
EOPS Status										
EOPS	2,037	59%	2,107	55%	2,491	51%	2,988	45%	3,486	32%
Not EOPS	24,011	61%	25,137	59%	27,453	56%	31,763	51%	42,339	40%
Economic Status										
Econ Dis	1,004	68%	1,455	69%	2,204	64%	3,063	54%	4,307	42%
Not Econ Dis	25,044	61%	25,789	58%	27,740	55%	31,688	50%	41,518	39%
MESA Status										
MESA	502	87%	558	90%	610	88%	663	86%	624	86%
Not MESA	25,546	61%	26,686	58%	29,334	55%	34,088	50%	45,201	39%
Puente Status										
Puente	59	47%	55	43%	91	43%	135	43%	200	31%
Not Puente	25,989	61%	27,189	59%	29,853	56%	34,616	50%	45,625	40%
Umoja Status										
Umoja	102	58%	107	55%	127	50%	145	37%	212	28%
Non Umoja	25,946	61%	27,137	59%	29,817	55%	34,606	50%	45,613	40%
Veteran Status										
Veteran	683	56%	675	59%	628	56%	691	50%	920	42%
Non Veteran	25,365	61%	26,569	59%	29,316	55%	34,060	50%	44,905	40%

Note: Native American includes Native Alaskan; Pacific Islander includes Native Hawaiian. Cells present the number and percentage of students in a given cohort with a given characteristic who first enrolled in a transfer-level course.

Table A5. First Course Completion Volume and Success Rates in English, Disaggregated by Student Group—Fall 2015 to Fall 2019

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
African American	1,910	66%	2,335	68%	2,703	66%	3,526	64%	4,809	58%
Asian	8,324	86%	9,107	85%	10,680	85%	13,922	85%	16,379	82%
Latinx	21,004	73%	24,901	72%	31,403	72%	42,693	70%	58,280	64%
Native American	206	67%	207	71%	275	74%	333	64%	377	62%
Pacific Islander	165	66%	200	68%	268	66%	324	63%	477	61%
Two or More	2,950	75%	3,529	76%	3,871	76%	4,513	76%	5,248	73%
White	20,245	80%	21,021	81%	22,676	81%	26,339	81%	26,883	78%
Unknown	1,242	83%	1,338	84%	1,888	81%	2,268	78%	7,568	72%
Gender										
Female	29,732	80%	32,950	79%	39,789	79%	50,972	77%	66,037	72%
Male	25,592	74%	28,713	74%	33,089	74%	41,828	72%	52,401	67%
Other/Unknown	722	76%	975	75%	886	73%	1,118	72%	1,583	69%
DSPS Status										
DSPS	3,039	75%	3,416	76%	4,076	73%	5,301	70%	6,716	62%
Not DSPS	53,007	77%	59,222	77%	69,688	77%	88,617	75%	113,305	70%
Foster Youth Status										
Foster Youth	803	64%	893	65%	1,018	61%	1,222	61%	2,668	59%
Not Foster Youth	55,243	77%	61,745	77%	72,746	77%	92,696	75%	117,353	70%
EOPS Status										
EOPS	5,014	79%	5,930	79%	7,741	78%	10,729	78%	12,843	71%
Not EOPS	51,032	77%	56,708	77%	66,023	76%	83,189	74%	107,178	70%
Economic Status										
Econ Dis	2,311	77%	3,118	79%	5,505	81%	9,278	75%	11,672	70%
Not Econ Dis	53,735	77%	59,520	77%	68,259	76%	84,640	75%	108,349	70%
MESA Status										
MESA	574	90%	652	92%	780	91%	862	92%	647	85%
Not MESA	55,472	77%	61,986	77%	72,984	76%	93,056	75%	119,374	70%
Puente Status										
Puente	69	83%	106	76%	239	83%	430	80%	1,082	84%
Not Puente	55,977	77%	62,532	77%	73,525	76%	93,488	75%	118,939	70%
Umoja Status										
Umoja	285	84%	339	76%	525	76%	808	72%	1,025	67%
Non Umoja	55,761	77%	62,299	77%	73,239	76%	93,110	75%	118,996	70%
Veteran Status										
Veteran	2,054	77%	2,155	77%	2,199	77%	2,234	77%	2,577	75%
Non Veteran	53,992	77%	60,483	77%	71,565	76%	91,684	75%	117,444	70%

Note: Native American includes Native Alaskan; Pacific Islander includes Native Hawaiian.

Table A6. First Course Completion Volume and Success Rates in SLAM Math Courses Within One Year, Disaggregated by Student Group—Fall 2015 to Fall 2019

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
African American	396	63%	416	60%	472	54%	698	54%	1,375	46%
Asian	2,292	83%	2,452	82%	2,862	82%	3,746	81%	5,370	76%
Latinx	3,752	67%	4,702	66%	6,090	63%	9,324	61%	16,951	52%
Native American	36	68%	35	61%	42	57%	59	58%	111	56%
Pacific Islander	33	62%	44	70%	60	64%	76	55%	157	48%
Two or More	621	74%	683	74%	878	73%	1,135	68%	1,688	62%
White	3,955	78%	4,389	78%	5,068	77%	6,521	75%	9,097	70%
Unknown	314	83%	326	82%	418	77%	475	71%	2,175	59%
Gender										
Female	7,015	77%	7,926	75%	9,889	73%	13,712	70%	22,845	61%
Male	4,247	70%	4,943	70%	5,800	67%	8,055	65%	13,613	56%
Other/Unknown	137	69%	178	69%	201	73%	267	69%	466	59%
DSPS Status										
DSPS	431	67%	551	69%	689	65%	923	61%	1,846	52%
Not DSPS	10,968	74%	12,496	73%	15,201	71%	21,111	68%	35,078	60%
Foster Youth Status										
Foster Youth	146	63%	145	65%	158	53%	257	53%	633	48%
Not Foster Youth	11,253	74%	12,902	73%	15,732	71%	21,777	68%	36,291	59%
EOPS Status										
EOPS	847	71%	1,066	70%	1,478	69%	2,288	67%	3,817	57%
Not EOPS	10,552	74%	11,981	73%	14,412	71%	19,746	68%	33,107	59%
Economic Status										
Econ Dis	313	69%	404	66%	818	67%	1,618	63%	3,049	53%
Not Econ Dis	11,086	74%	12,643	73%	15,072	71%	20,416	68%	33,875	60%
MESA Status										
MESA	60	87%	54	92%	68	84%	76	86%	53	61%
Not MESA	11,339	74%	12,993	73%	15,822	70%	21,958	68%	36,871	59%
Puente Status										
Puente	40	67%	54	82%	71	63%	120	70%	253	62%
Not Puente	11,359	74%	12,993	73%	15,819	71%	21,914	68%	36,671	59%
Umoja Status										
Umoja	46	69%	44	54%	68	69%	145	62%	269	59%
Non Umoja	11,353	74%	13,003	73%	15,822	71%	21,889	68%	36,655	59%
Veteran Status										
Veteran	364	72%	301	69%	350	72%	444	70%	767	68%
Non Veteran	11,035	74%	12,746	73%	15,540	70%	21,590	68%	36,157	59%

Note: Native American includes Native Alaskan; Pacific Islander includes Native Hawaiian. SLAM refers to statistics and liberal arts math.

Table A7. First Course Completion Volume and Success Rates in B-STEM Math Courses Within One Year, Disaggregated by Student Group—Fall 2015 to Fall 2019

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
African American	380	61%	394	58%	375	52%	509	53%	658	43%
Asian	6,009	82%	6,091	83%	6,278	82%	7,040	82%	7,465	79%
Latinx	4,968	64%	5,410	63%	6,100	60%	7,228	57%	9,541	49%
Native American	26	51%	35	58%	49	60%	39	43%	39	38%
Pacific Islander	44	62%	40	53%	48	53%	63	58%	89	52%
Two or More	849	69%	1,040	71%	1,072	71%	1,245	69%	1,395	65%
White	5,951	75%	6,089	75%	6,409	74%	6,880	72%	6,997	70%
Unknown	837	85%	758	84%	862	78%	782	77%	1,968	65%
Gender										
Female	7,451	76%	7,520	75%	8,349	72%	9,511	69%	11,180	63%
Male	11,381	72%	12,019	72%	12,576	70%	13,953	68%	16,539	60%
Other/Unknown	232	66%	318	71%	268	67%	322	70%	433	64%
DSPS Status										
DSPS	731	68%	780	68%	880	65%	907	63%	1,042	55%
Not DSPS	18,333	73%	19,077	73%	20,313	71%	22,879	69%	27,110	62%
Foster Youth Status										
Foster Youth	225	64%	211	64%	245	63%	258	62%	578	51%
Not Foster Youth	18,839	73%	19,646	73%	20,948	71%	23,528	69%	27,574	62%
EOPS Status										
EOPS	1,603	79%	1,608	76%	1,875	75%	2,140	72%	2,126	61%
Not EOPS	17,461	73%	18,249	73%	19,318	70%	21,646	68%	26,026	61%
Economic Status										
Econ Dis	700	70%	1,018	70%	1,605	73%	2,076	68%	2,514	58%
Not Econ Dis	18,364	73%	18,839	73%	19,588	71%	21,710	69%	25,638	62%
MESA Status										
MESA	437	87%	494	89%	540	89%	565	85%	476	76%
Not MESA	18,627	73%	19,363	73%	20,653	70%	23,221	68%	27,676	61%
Puente Status										
Puente	36	61%	44	80%	59	65%	88	65%	111	56%
Not Puente	19,028	73%	19,813	73%	21,134	71%	23,698	68%	28,041	61%
Umoja Status										
Umoja	71	70%	65	61%	76	60%	79	54%	94	44%
Non Umoja	18,993	73%	19,792	73%	21,117	71%	23,707	69%	28,058	62%
Veteran Status										
Veteran	479	70%	472	70%	421	67%	460	67%	579	635
Non Veteran	18,585	73%	19,385	73%	20,772	71%	23,326	68%	27,573	61%

Note: Native American includes Native Alaskan; Pacific Islander includes Native Hawaiian. B-STEM refers to business, science, technology, engineering, and mathematics.

Table A8. One-Year Throughput Rates for Transfer-Level English by Student Group

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
African American	3,021/ 9,526	32%	3,492/ 9,262	38%	3,750/ 9,161	41%	4,337/ 9,054	48%	4,930/ 9,022	55%
Asian	11,935/ 19,981	60%	12,571/ 19,721	64%	13,453/ 20,128	67%	15,910/ 21,508	74%	16,706/ 21,102	79%
Latinx	34,231/ 82,734	41%	38,603/ 86,420	45%	43,506/ 89,561	49%	51,441/ 91,551	56%	59,358/ 95,361	62%
Native American	310/784	40%	313/767	45%	360/749	49%	384/745	56%	380/642	62%
Pacific Islander	269/755	36%	299/729	41%	367/768	48%	392/752	52%	484/816	59%
Two or More	3,835/ 7,170	53%	4,456/ 7,758	57%	4,682/ 7,676	61%	5,031/ 7,709	65%	5,345/ 7,522	71%
White	25,658/ 42,079	61%	26,226/ 41,363	63%	26,903/ 40,351	67%	28,989/ 40,314	72%	27,261/ 35,828	76%
Unknown	1,747/ 3,120	56%	1,733/ 2,920	59%	2,376/ 3,937	60%	2,615/ 3,939	66%	7,675/ 10,950	70%
Gender										
Female	43,782/ 86,091	51%	47,038/ 86,919	54%	52,115/ 89,466	58%	59,501/ 91,631	65%	67,256/ 96,135	70%
Male	36,232/ 78,052	46%	39,370/ 79,637	49%	42,273/ 80,795	52%	48,355/ 81,904	59%	53,265/ 82,695	64%
Other/Unknown	992/2,007	49%	1,285/ 2,384	54%	1,099/ 2,070	53%	1,243/ 2,037	61%	1,618/ 2,413	67%
DSPS Status										
DSPS	4,747/ 12,683	37%	5,267/ 12,820	41%	5,744/ 13,064	44%	6,599/ 12,787	52%	6,981/ 12,090	58%
Not DSPS	76,259/ 153,467	50%	82,426/ 156,120	53%	89,743/ 159,267	56%	102,500/ 162,785	63%	115,158/ 169,153	68%
EOPS Status										
EOPS	9,259/ 20,345	46%	10,239/ 20,543	50%	11,542/ 20,824	55%	13,582/ 21,053	65%	13,136/ 19,173	69%
Not EOPS	71,747/ 145,805	49%	77,454/ 148,397	52%	83,945/ 151,507	55%	95,517/ 154,519	62%	109,003/ 162,070	67%
Foster Youth										
Foster Youth	1,211/ 3,689	33%	1,338/ 3,708	36%	1,367/ 3,539	39%	1,477/ 3,253	45%	2,712/ 4,753	57%
Not Foster Youth	79,795/ 162,461	49%	86,355/ 165,232	52%	94,120/ 168,792	56%	107,622/ 172,319	62%	119,427/ 176,490	68%
Economic Status										
Ec Dis	3,830/ 7,595	50%	5,204/ 9,515	55%	7,885/ 13,339	59%	11,113/ 17,628	63%	11,873/ 17,628	67%
Non Ec Dis	77,176/ 158,555	49%	82,489/ 159,425	52%	87,602/ 159,001	55%	97,986/ 157,944	62%	110,266/ 163,615	67%
MESA Status										
MESA	830/1,083	77%	908/1,108	82%	955/1,135	84%	957/1,078	89%	652/768	85%
Non MESA	80,176/ 165,067	49%	86,785/ 167,832	52%	94,532/ 171,196	55%	108,142/ 174,494	62%	121,487/ 180,475	67%

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Puente Status										
Puente	688/1,026	67%	678/1,029	66%	810/1,214	67%	896/1,276	70%	1,093/1,310	83%
Non Puente	80,349/165,124	49%	87,015/167,911	52%	94,677/171,117	55%	108,203/174,296	62%	121,046/179,933	67%
Umoja Status										
Umoja	548/1,147	48%	670/1,376	49%	815/1,528	53%	1,108/1,683	60%	1,043/1,598	65%
Non Umoja	80,458/165,003	49%	87,023/167,564	52%	94,672/170,803	55%	108,081/173,889	62%	121,096/179,645	67%
Veteran Status										
Veteran	2,870/5,286	54%	2,859/4,933	58%	2,719/4,402	62%	2,603/3,909	67%	2,614/3,545	74%
Non Veteran	78,136/160,864	49%	84,834/164,007	52%	92,768/167,929	55%	106,496/171,663	62%	119,525/177,698	67%

Note: Native American includes Native Alaskan; Pacific Islander includes Native Hawaiian.

Table A9. One-Year Throughput Rates for Transfer-Level Math, Disaggregated by Student Group

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Ethnicity										
African American	1,202/ 8,836	14%	1,204/ 8,696	14%	1,297/ 8,669	15%	1,673/ 8,051	21%	2,301/ 6,670	34%
Asian	10,410/ 21,393	49%	10,579/ 21,269	50%	11,158/ 20,868	53%	12,576/ 21,604	58%	14,033/ 20,304	69%
Latinx	13,815/ 79,982	17%	15,433/ 83,480	18%	17,586/ 85,390	21%	22,101/ 83,080	27%	30,095/ 72,474	42%
Native American	99/659	15%	109/675	16%	123/659	19%	128/638	20%	187/474	39%
Pacific Islander	111/727	15%	129/692	19%	151/707	21%	181/640	28%	275/666	41%
Two or More	1,956/ 7,048	28%	2,345/ 7,495	31%	2,556/ 7,402	35%	2,876/ 7,219	40%	3,430/ 6,351	54%
White	13,267/ 41,733	32%	13,725/ 40,280	34%	14,648/ 39,367	37%	16,260/ 37,398	43%	18,078/ 30,548	59%
Unknown	1,398/ 3,275	43%	1,292/ 3,069	42%	1,560/ 4,247	37%	1,525/ 3,687	41%	4,577/ 8,570	53%
Gender										
Female	20,811/ 83,919	25%	21,778/ 84,557	26%	24,474/ 85,493	29%	29,367/ 83,158	35%	38,311/ 74,626	51%
Male	20,956/ 77,682	27%	22,365/ 78,768	28%	24,004/ 79,832	30%	27,243/ 77,300	35%	33,652/ 69,473	48%
Other/Unknown	491/2,053	24%	673/2,331	29%	601/1,984	30%	710/1,859	38%	1,013/ 1,958	52%
DSPS Status										
DSPS	1,768/ 12,157	15%	2,063/ 12,409	17%	2,285/ 12,134	19%	2,603/ 11,305	23%	3,372/ 8,693	39%
Not DSPS	40,090/ 151,497	27%	42,753/ 153,247	28%	46,794/ 155,175	30%	54,717/ 151,012	36%	69,604/ 137,364	51%
EOPS Status										
EOPS	4,159/ 20,192	21%	4,316/ 20,517	21%	5,117/ 20,588	25%	6,306/ 19,727	32%	6,839/ 14,379	48%
Not EOPS	38,099/ 143,462	27%	40,500/ 145,139	28%	43,962/ 146,721	30%	51,014/ 142,590	36%	66,137/ 131,678	50%
Foster Youth										
Foster Youth	537/3,569	15%	514/3,564	14%	568/3,240	18%	680/3,018	23%	1,385/ 3,826	36%
Not Foster Youth	41,721/ 160,085	26%	44,302/ 162,092	27%	48,511/ 164,069	30%	56,640/ 159,299	36%	71,591/ 142,231	50%
Economic Status										
Ec Dis	1,593/ 7,342	22%	2,220/ 9,152	24%	3,494/ 12,310	28%	4,770/ 14,777	32%	6,047/ 13,554	45%
Non Ec Dis	40,665/ 156,312	26%	42,596/ 156,504	27%	45,585/ 154,999	29%	52,550/ 147,540	36%	66,929/ 132,503	51%
MESA Status										
MESA	713/1,104	65%	760/1,154	66%	779/1,116	70%	772/1,069	72%	561/797	70%
Non MESA	41,545/ 162,550	26%	44,056/ 164,502	27%	48,300/ 166,193	29%	56,548/ 161,248	35%	72,415/ 145,260	50%

	Fall 2015		Fall 2016		Fall 2017		Fall 2018		Fall 2019	
	#	%	#	%	#	%	#	%	#	%
Puente Status										
Puente	144/769	19%	169/798	21%	208/904	23%	293/856	34%	399/759	53%
Non Puente	42,114/ 162,885	26%	44,647/ 164,858	27%	48,871/ 166,405	29%	57,027/ 161,461	35%	72,577/ 145,298	50%
Umoja Status										
Umoja	191/1,009	19%	193/1,085	18%	228/1,210	19%	336/1,276	26%	394/957	41%
Non Umoja	42,067/ 162,645	26%	44,623/ 164,571	27%	48,851/ 166,099	29%	56,984/ 161,041	35%	72,582/ 145,100	50%
Veteran Status										
Veteran	1,275/ 5,508	23%	1,188/ 4,960	24%	1,211/ 4,433	27%	1,359/ 3,971	34%	1,619/ 3,180	51%
Non Veteran	40,983/ 158,146	26%	43,628/ 160,696	27%	47,868/ 162,876	29%	55,961/ 158,346	35%	71,357/ 142,877	50%

Note: Native American includes Native Alaskan; Pacific Islander includes Native Hawaiian.

Table A10. One-Year Throughput Rates for Transfer-Level English by Cohort and Starting Level

Term and Starting Level	Successful Completers within One Year	Total Students	One-Year Throughput Rate
Fall 2019 Cohort	**122,139**	**181,243**	**67%**
Starting at transfer-level	120,021	172,367	70%
Starting 1 level below	1,813	7,142	25%
Starting 2+ levels below	305	1,734	18%
Fall 2018 Cohort	**109,009**	**175,572**	**62%**
Starting at transfer-level	93,918	125,423	75%
Starting 1 level below	12,897	37,372	35%
Starting 2+ levels below	2,284	12,777	18%
Fall 2017 Cohort	**95,487**	**172,331**	**55%**
Starting at transfer-level	73,764	96,582	76%
Starting 1 level below	18,901	50,477	37%
Starting 2+ levels below	2,822	25,272	11%
Fall 2016 Cohort	**87,693**	**168,940**	**52%**
Starting at transfer-level	62,638	81,441	77%
Starting 1 level below	22,216	56,372	39%
Starting 2+ levels below	2,839	31,127	9%
Fall 2015 Cohort	**81,006**	**166,150**	**49%**
Starting at transfer-level	56,046	72,788	77%
Starting 1 level below	21,969	56,683	39%
Starting 2+ levels below	2,991	36,679	8%

Table A11. One-Year Throughput Rates for All Transfer-Level Math by Cohort and Starting Level

Term and Starting Level	Successful Completers within One Year	Total Students	One-Year Throughput Rate
Fall 2019 Cohort	**72,976**	**146,057**	**50%**
Starting at transfer-level	69,131	115,735	60%
Starting 1 level below	3,526	24,525	14%
Starting 2+ levels below	319	5,686	6%
Fall 2018 Cohort	**57,370**	**162,317**	**35%**
Starting at transfer-level	46,938	69,487	68%
Starting 1 level below	8,737	45,490	19%
Starting 2+ levels below	1,645	47,340	3%
Fall 2017 Cohort	**49,079**	**167,309**	**29%**
Starting at transfer-level	37,906	53,998	70%
Starting 1 level below	9,837	44,886	22%
Starting 2+ levels below	1,336	68,425	2%
Fall 2016 Cohort	**44,816**	**165,656**	**27%**
Starting at transfer-level	33,692	46,434	73%
Starting 1 level below	9,842	44,141	22%
Starting 2+ levels below	1,282	75,081	2%
Fall 2015 Cohort	**42,258**	**163,654**	**26%**
Starting at transfer-level	31,217	42,734	73%
Starting 1 level below	9,669	42,654	23%
Starting 2+ levels below	1,372	78,266	2%

Note: Throughput rates are not disaggregated by SLAM and B-STEM due to the inability to identify the starting course for math students without knowing their program of study, which is not available in the data file provided.