# Interim Report on the Implementation and Impact of Developmental Education Curricular Reform in California Community Colleges

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Abstract: Research for Action (RFA) in partnership with the University of Texas at Austin is engaged in a five-year mixed-methods study of the reforms associated with California AB 705. Over the course of the study, our team will assess the implementation, impact, and cost effectiveness of reforms associated with the law. This report first offers a descriptive quantitative analysis of short-term outcome (enrollment and completion) trends in math and English at the state level. This descriptive analysis examines the relationship between AB 705 and course enrollment and completion, which will serve as the basis for the quasi-experimental study in subsequent project years. The second part of the report presents findings from institutional site visits aimed at understanding how institutions have implemented the reforms, who is involved in implementation, and how implementation is experienced by students.

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# Interim Report on the Implementation and Impact of Developmental Education Curricular Reform in California Community Colleges

June 2023, revised March 2024

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## Introduction

Historically, upon entry to community college, the majority of students have not met "college-readiness" standards in mathematics and English and were either encouraged or required to enroll in developmental education (DE) courses (Bailey et al., 2010; Hughes & Scott-Clayton, 2011). Although community colleges designed DE courses to improve the reading, writing, and/or math skills of students, further preparing them for college-level coursework, evidence indicates that DE may hinder student progression and retention. Students placed into DE typically spend several semesters working through non-credit-bearing, prerequisite DE sequences before becoming eligible for college-level courses. As such, DE placement can often have the unintended result of deterring students from progressing to the credit-bearing courses necessary to facilitate their progress toward transfer and degree completion. Students placed into DE are less likely to complete college-level courses or earn a credential than their peers (Bailey et al., 2010; Calcagno et al., 2007; Clotfelter et al., 2015; Hern & Snell, 2010).

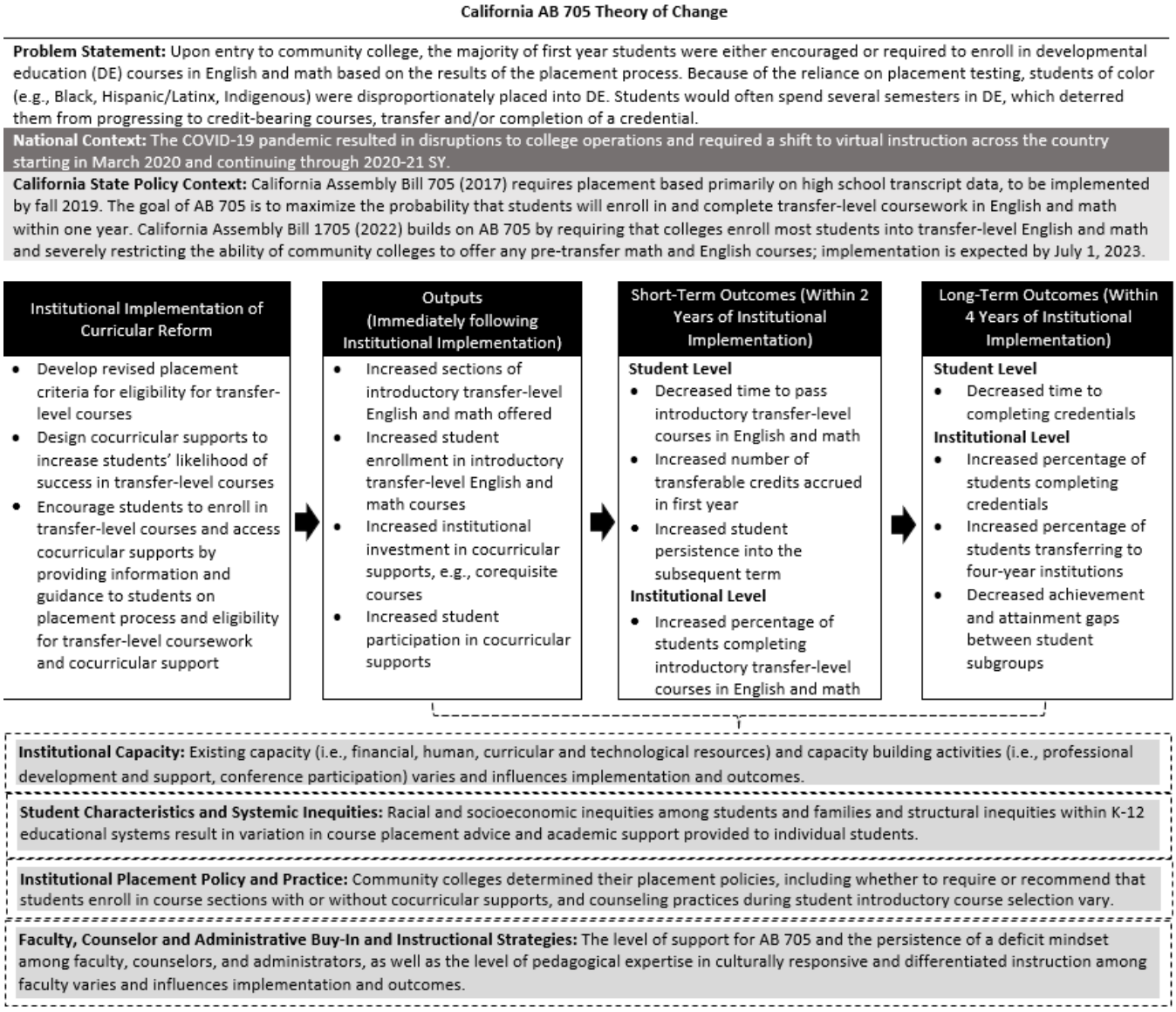
Additionally, DE researchers have documented significant racial disparities in both students' assignment to and successful completion of DE courses. The widespread use of standardized placement tests, which have been criticized as racially biased and as poor predictors of college success, likely contributes to the overrepresentation of Black, Latinx, and Indigenous students in DE (Chen et al., 2020; Chen & Simone, 2016), hampering those students' access and success in credit-bearing coursework. Research indicates that measures of student skills and prior performance, particularly high school GPA, are stronger predictors of college readiness than placement test scores (Belfield & Crosta, 2012; Scott-Clayton, 2012; Scott-Clayton et al., 2014). As of 2021, 26 states, including California, have worked to improve DE placement and outcomes through policy shifts allowing the use of multiple measures in placement decisions, innovative DE instructional methods and interventions, and/or the use of corequisite supports (Education Commission of the States, 2021).

## California Community College Context

In 2017, California embarked on a significant DE reform effort mandated by Assembly Bill [AB] 705. The legislation requires all California community colleges to use high school transcript data to assess college readiness and inform students' initial English and math course placement. The language of the law requires that placement in introductory courses "maximizes the likelihood that the student will complete transfer-level English and math within one year." Prior to AB 705 there were three levels of coursework in California's community colleges: remedial or DE courses, college-level courses (those which contributed to a local associate degree), and transfer-level courses (those which were transferable to either the University of California [UC] or California State University [CSU] systems, or both). Post-AB 705, there are just two levels: transfer-level and below-transfer-level. The legislation provided latitude for colleges to determine how to revise their placement criteria, providing a set of "default placement rules" that colleges could adopt while allowing colleges to implement alternate approaches if they could demonstrate that they maximized the rate at which students complete a transfer-level course in English and math within one year. This completion rate is referred to as "throughput" and serves as the main measure in evaluating progress associated with this reform. The default placement rules suggest specific high school GPA thresholds for math and English as well as whether additional cocurricular support is recommended.

We depict the context and expected implementation for AB 705 in a Theory of Change below (see Figure 1). The Theory of Change begins with a problem statement highlighting that colleges' reliance on placement testing led to disproportionate impacts on students of color (in particular, Black, Latinx, and Indigenous students). It is important to underscore this context as it sets the stage for AB 705 as an equity reform, targeting a manifestation of structural racism. The Theory of Change also provides the state policy context which outlines the intention of AB 705 and includes language about the follow-up legislation, AB 1705. It identifies the elements of the reforms associated with AB 705, and their intended outputs and short- and long-term outcomes. Lastly, it describes four moderating variables: institutional capacity; student characteristics and systemic inequities; institutional placement and practice; and faculty, counselor, and administrative buy-in, which shape the institution's approach to reforms associated with AB 705 and the student experience of those reforms.

Figure 1. California AB 705 Theory of Change




Many colleges and state systems are working to redesign their approaches to delivering DE, changing course structures to accelerate progress through non-credit remedial courses into college- and transfer-level courses (Edgecombe, 2011). Corequisites and other cocurricular support models have shown promise in increasing student retention and completion of introductory college-level math and English (Boatman, 2012; Cho et al., 2012; Daugherty et al., 2021; Denley, 2016; Jenkins et al., 2010; Logue et al., 2019; Meiselman & Schudde, 2022; Miller et al., 2022; Ran & Lin, 2022). The California Community College Chancellor's Office (CCCCO) expected that colleges would shift from offering DE courses and instead offer transfer-level courses with cocurricular supports, such as corequisites, but AB 705 did not specifically require colleges to eliminate below-transfer level coursework.

However, three years into AB 705 implementation, the legislature was dissatisfied with the lack of progress made and the persistence with which some colleges were continuing to place students into DE rather than transfer-level coursework. As a result, the legislature passed AB 1705 in September 2022, which sought to close perceived loopholes in AB 705 by requiring that colleges not simply place but also enroll students in transfer level courses, and discontinue offering below-transfer-level courses in all but a few special cases.

## Impact of COVID-19 Pandemic

One critical update to the Theory of Change is the onset of the COVID-19 pandemic in spring 2020, just one semester after colleges were expected to fully implement AB 705. College campuses had to respond quickly to the pandemic, moving all their courses online and working to identify additional supports (e.g., loaning laptops, offering free Wi-Fi, providing online tutoring and basic needs assistance) to bolster student success. Many community college students stopped out of their education in spring 2020. The rapidly shifting conditions challenged implementation of the policy reforms, as detailed later in the report.

## Purpose of this Interim Report

Research for Action (RFA) and a research team at the University of Texas at Austin are engaged in a five-year mixed-methods study of the reforms associated with AB 705. Over the course of the study, our team will address nine research questions related to the implementation, impact, and cost effectiveness of reforms associated with AB 705. This Interim Report, presented at the conclusion of year two of our study, contributes to an understanding of our first four research questions:

RQ1: *How are California community colleges implementing curricular reforms? How do institutional policies and practices regarding curricular reform vary across colleges?*

a) *How do policies and practices in math and English departments vary within colleges?*

RQ2: *How do institutional capacity and faculty buy-in affect institutional adoption and implementation of curricular reforms?*

a) *How does capacity and faculty buy-in vary between math and English departments, and why?*

RQ3: *How do student experiences vary between high, medium, and low implementation colleges, and why?*

*a) What information are colleges providing to students regarding curricular reform?*
*b) To what degree do students understand the curricular reforms taking place at their colleges?*
*c) How, if at all, do students' experiences of curricular reform vary across student characteristics, such as age, race/ethnicity, income, and level of preparation?*
*d) How, if at all, do students' experiences of math and English curricular reforms vary?*

RQ4: *What is the impact of transfer-level placement, compared to placement into a prerequisite DE math or English course, on both short- and long-term student outcomes?*

Part I of the report offers a descriptive quantitative analysis of short-term outcome (enrollment and completion) trends in math and English at the state level to provide a larger context for the institutional findings from the qualitative fieldwork undertaken in fall 2022 and winter 2023. While we cannot evaluate

impact at this stage of the project, this descriptive analysis examines and establishes the relationship between AB 705 and course enrollment and completion, which will serve as the basis for our quasi-experimental study in subsequent project years. Part II of the report presents findings from the institutional site visits conducted in year 2 aimed at understanding how institutions implement the reforms, who is involved in implementation, and how implementation is experienced by students.

# Part I: California Community College Landscape Post-AB 705: Shifts in Student Enrollment and Course Completion Trends

## Review of the Literature on AB 705 Outcomes in California Community Colleges

Extensive descriptive research has documented the changes in student enrollment and course completion in the state following AB 705. The research, primarily conducted by the Research and Planning Group for California Community Colleges (RP Group), the Public Policy Institute of California (PPIC), and the California Acceleration Project (CAP), has focused on several aspects of policy and practice associated with AB 705 at the California community colleges. The findings demonstrate:

- Decreased proportion of transfer and below-transfer course offerings in English and math;
- Increased student course enrollment in introductory English and math courses; and
- Increased student course completion or "throughput" rates, especially among Black and Latinx students.

Although AB 705 did not technically take effect until fall 2019, the RP Group (November 2019) found that as early as 2018, California community colleges had decreased the number of basic skills courses offered, where over 90% and 84% of colleges reduced English and math basic skills sections, respectively. The reductions in basic skills course offerings resulted in increases in the number of introductory, transfer-level English and math course sections offered.

AB 705 required colleges to change their placement policies, but it did not explicitly require colleges to enroll students in introductory transfer-level courses. Nevertheless, **the proportion of California community college students enrolling in transfer-level English and math courses, including Black and Latinx students, increased since the policy passed** (RP Group, September 2019; January 2021). Access to introductory, transfer-level English courses since AB 705 improved dramatically, with 97% of students enrolling directly in college composition (Cuellar Mejia et al., August 2022). However, at one in five community colleges, a third or more of students, particularly Black and Latinx students, were still enrolling in below-transfer-level math courses (Cuellar Mejia et al., December 2021).

To examine student outcomes resulting from the shift in course offerings, researchers in California have primarily focused on measuring "throughput." The emphasis on throughput stems from AB 705's requirement that community colleges maximize the probability that a student will enter and complete transfer-level coursework in English and math *within a one-year timeframe*. However, that one year timeframe may start *at any time*, not necessarily from the start of a student's entry into the community college. This distinction has led to **the use of throughput as a central indicator of course completion**. The RP Group (2022) defined throughput as the proportion *of the entire cohort of students* attempting any level of English or mathematics course who successfully complete a transfer-level course in that same subject within one year at any California community college. Other analyses focused on measuring the "one-term throughput rate," which PPIC defined as the proportion of first-time students who successfully complete a transfer-level course with a grade of C or better *on their first attempt*, with the denominator including students who took developmental or transfer-level courses for the first time (Cuellar Mejia et al., December 2021).

Research examining the outcomes of the policy to date suggests that the **throughput rates for both transfer-level English and math courses have risen following the implementation of institutional policies and practices in support of AB 705**. PPIC reported that the throughput rate of first-time, one-term English course completion increased from 47% to 59%, and the rate of first-time, one-term math course completion increased from 25% to 51% between fall 2018 to fall 2022 (Cuellar Mejia et al., October 2023). The RP Group (September 2019) examined shifts in the completion rates of specific transfer-level math courses, finding a 116% increase in students completing Statistics/Liberal Arts Math (SLAM) transfer-level math courses and a 103% increase in students completing Science, Technology, Engineering, and Math (STEM) transfer-level math courses in 2018, in comparison to 2017 completion rates (RP Group, September 2019).

As the percentage of students enrolling in transfer-level courses in English and math increased since the passage of AB 705, the completion rates among those enrolled directly into transfer-level courses declined, though not at a rate proportional to the size of the increase in enrollment. **Overall, there are net increases in the total volume of students completing transfer-level English and math courses, as well as in overall throughput rates** (RP Group, January 2021).

Research has also examined changes in throughput rates among student subgroups, highlighting that **equity gaps remain**, especially between Black and Latinx students and their white peers (RP Group, September 2019). Despite overall improvements in course completion, equity gaps in course completion rates remain almost as high as they were in 2019: in transfer-level math courses, the white-Black gap in one-term course completion rates was 22 percentage points, and the white-Latinx gap was 17 percentage points (Cuellar Majia et al., October 2023). Gaps can also be seen among other student subgroups, with lower throughput rates in transfer-level math courses, compared with their peers, for students identified as economically disadvantaged, former foster care youths, and those participating in Disabled Students Programs and Services (DSPS); students with those designations (compared with those without) experienced larger gaps in 2019 than in 2015 (RP Group, July 2021). However, although DSPS students' throughput rates continue to fall below those of non-DSPS students, students from all disability types supported under DSPS are still experiencing an improvement in throughput in both transfer-level math and English courses (October 2022).

Although some research has described the implementation of new cocurricular supports (e.g., corequisite courses, embedded tutoring) and instructional strategies such as "just-in-time" remediation (Cuellar Mejia, et al, October 2023; RP Group, February 2019, September 2019, January 2021) the bulk of the research has focused on tracking student outcomes. We discuss extant implementation research in Part II of this report.

## Data and Methods

The first research question we address is RQ4; however, as noted above, at this stage of the project we focus on descriptive rather than causal analysis and on short-term outcomes. To examine the relationship between AB 705 and enrollment and completion of transfer-level math and English courses, Research for Action (RFA) conducted a system-wide, descriptive trend analysis of student outcomes using six cohorts of first-time community college entrants between fall 2015 and fall 2020. This allows us to capture three years prior to the reform mandate (fall 2015-fall 2017 cohorts), the duration of the mandate roll-out (fall 2018 cohort), and two years of follow-up (fall 2019 and fall 2020 cohorts) to capture the period after

implementation should have been complete, though we anticipate some colleges will continue to adjust their implementation during the follow-up years. This analysis draws on the California Community Colleges Chancellor's Office Management Information System (COMIS) data, which contains longitudinal data for the entire population of community college students in the state, including student enrollment records, demographics, credits, grades, degree outcomes, and financial aid data.

Unlike the research focus in California on throughput, which includes all registered community college students who enrolled in math or English courses for the first time, the study sample for this analysis consists of cohorts of *first-year* community college students registered for fall 2015 through fall 2020; additional cohorts from 2021 onward will be added as the data become available. Sample students are restricted to those who were registered for at least one credit during their first fall semester, and students attending the three colleges on the quarter system are not included.[1]

While prior studies' use of larger cohorts of students (e.g., all first-, second-, and third-year students) to determine throughput rates allows for a more comprehensive understanding of student outcomes across an institution, research in the field outside of California is typically limited to cohorts of first-time-in-college (FTIC) students to control for the effects of additional variables (e.g., number of years in college) in the analysis and estimate policy impacts using quasi-experimental techniques, including comparing outcomes between pre- and post-intervention cohorts (e.g., Park-Gaghan, et al., 2020; Miller, et al., 2022). Restricting the analytic sample to first-time community college students allows us to ensure they are on a similar timeframe in their academic journey and may be more likely to share similar academic experiences. In contrast, combining all enrollees—including students across multiple academic years—in the analytic cohort, while aligned to the policy's definition of throughput, would introduce variation in student background and experiences that may influence their readiness for, and success in, the courses, limiting our ability to isolate the impact of gaining access to transfer-level coursework. Therefore, we restrict our analytic sample to students in their first registered semester at a California community college to strengthen our ability to estimate the association between the AB 705 reforms and the outcomes. For the same reason, we exclude dual enrollment students and students attempting zero credits from the analytic sample. In our subsequent analyses, we will also further account for variation in students' demographic and academic backgrounds by including covariates in our analyses.

[1] We plan to include colleges on the quarter system in the final analysis; however, since those colleges will have to be analyzed separately, they are not included in the preliminary analytic sample or findings.

Table 1 presents the total number of first-time college students in each of the fall cohorts and their age and race/ethnicity distributions.

Table 1. Age and Race/Ethnicity of Fall Cohorts from 2015 through 2020

| Fall cohort | Total number of first-time college students | Age | | Race/Ethnicity | | | | |
|---|---|---|---|---|---|---|---|---|
| | | <=25 | >25 | Black | Latinx | White | Asian | Other |
| 2015 | 220,284 | 81% | 19% | 8% | 49% | 25% | 11% | 8% |
| 2016 | 210,808 | 80% | 20% | 8% | 50% | 24% | 10% | 8% |
| 2017 | 217,984 | 81% | 20% | 7% | 49% | 25% | 10% | 9% |
| 2018 | 196,705 | 85% | 15% | 7% | 50% | 24% | 12% | 8% |
| 2019 | 197,118 | 84% | 16% | 6% | 51% | 20% | 11% | 12% |
| 2020 | 188,050 | 84% | 16% | 6% | 49% | 24% | 12% | 9% |

In this report, the initial academic year includes the previous summer term, fall term, winter intersession, spring term and summer term. The course enrollment records from the previous summer are included in computing one-year outcomes presented in the next section because first-time college students starting in the fall of each academic year are allowed to take courses in the summer prior.[2]

Using the COMIS course enrollment data from each of these terms, we identified students' enrollment and successful completion in transfer-level math and English courses. First, in the COMIS enrollment data, we identified student enrollment in all math and English courses using the Taxonomy of Programs (TOP) code. Math courses are defined by the TOP code 1701.00 (general math), 1702.00 (math skills), and 1799.00 (math other). English courses are defined by the TOP code 1501.00 (English writing) and 1502.00 (English reading). Second, we identified transfer-level and below-transfer math and English courses using COMIS course-level variables CB21 and CB05. Math and English courses with CB21 code Y (indicating that the course is at least college-level) and CB05 codes A (indicating that the course is transferable to UC and CSU systems) or B (indicating that the course is transferable to CSU only) are defined as transfer-level. Courses

[2] We include both the summer prior to the fall semester and the summer after the spring semester for all cohorts in this analysis because we are focused on one-year outcomes, and both summers can be considered as part of a student's first year of college. In subsequent analyses, we will restrict all cohorts to only include academic data from the summer prior to a students' incoming fall semester, not the summer after. Based on the data, we predict that this adjustment will impact an average of approximately 162 (0.2% of total) students per cohort.

with CB21 codes A through H and CB05 code C (indicating that the course is not transferable) are defined as below-transfer-level.

We define the successful completion of transfer-level math and English courses as whether a student receives an A, B, C, or a passing grade such as P or CR, in at least one transfer-level math or English course in which they enrolled within their first academic year (i.e., Summer – Fall – [Winter] – Spring – Summer). Note that students could enroll in multiple math and/or English courses at both transfer- or below-transfer-level during their first academic year. D or D- grades are not included because a minimum grade of C is required to transfer a credit or to fulfill degree completion requirements.

## Preliminary Findings

This section presents findings from a preliminary, descriptive trend analysis that compares first-time California community college students' transfer-level math and English enrollment and completion rates before and after AB 705. Whereas much of the prior research on the reform focuses on the throughput rate of all students, this analysis reflects the relationship between AB 705 and student enrollment and completion as seen in first-time college students only. We ask the following three sub-questions under RQ5 to explore the relationship between AB 705 and short-term student outcomes as experienced by first-time college students:

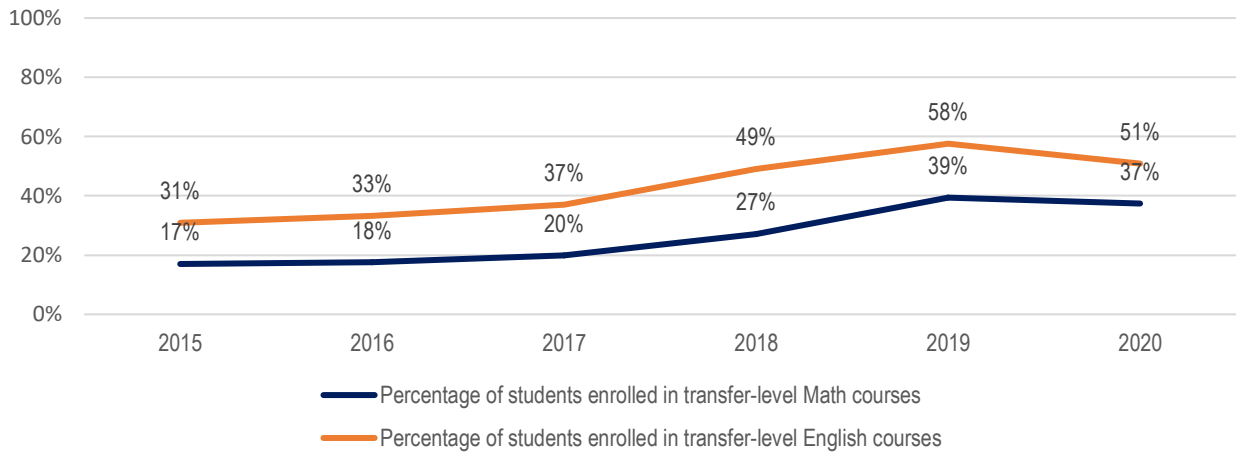
- What changes, if any, do we observe in students' **enrollment rates** in transfer-level math and English courses within their first academic year at college before and after AB 705?
- What changes, if any, do we observe in students' **completion rates** for transfer-level math and English courses within their first academic year at college before and after AB 705?
- What changes, if any, do we observe in **completion of transfer-level math and English courses** within the first academic year, among enrolled students?

We examined outcomes for the fall cohort of each year. We also disaggregated by race/ethnicity subgroups to examine differences in outcomes between student subgroups.

### Trends in Transfer-Level Math and English Course Enrollment

Figure 2 displays the percentages of first-time college students in each fall cohort from 2015 through 2020 who enrolled in transfer-level math and English courses within their first academic year.

Figure 2. Percentage of first-time college students who enrolled in transfer-level math and English courses, Fall 2015 to Fall 2020

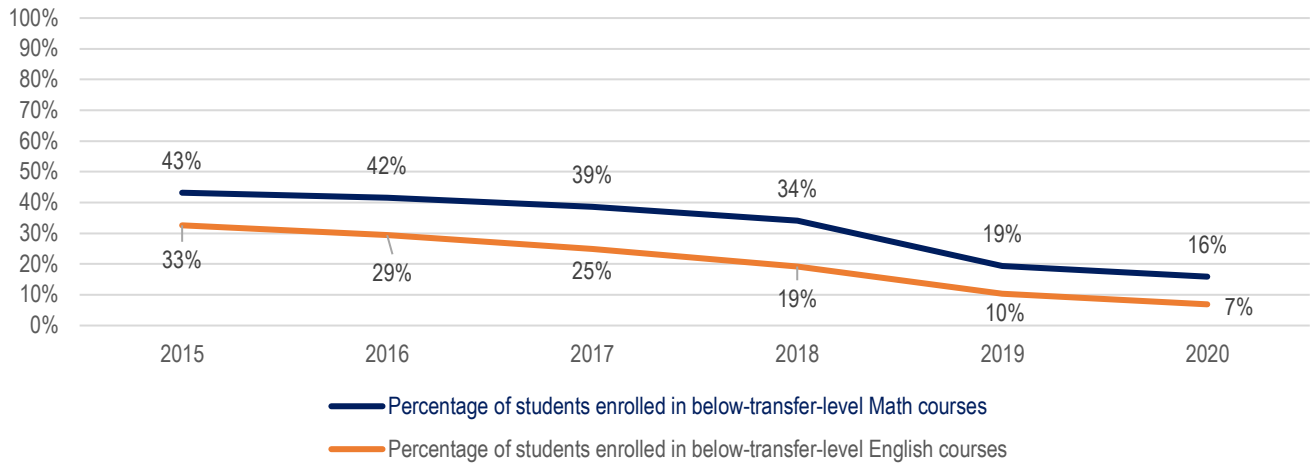



As shown in Figure 2, **enrollment in transfer-level math and English courses within the first academic year substantially increased during the rollout (2018) and post-AB 705 years (2019 and 2020)**.

- **Math:** The percentage of first-time college students enrolled in transfer-level math courses during their first academic year remained at or below 20% between fall 2015 and fall 2017 cohorts, but it increased by 7 and 12 percentage points during the next two cohorts, respectively, growing to 39% in the fall 2019 cohort. The percentage decreased slightly to 37%, between fall 2019 and fall 2020.
- **English:** Enrollment by first-time college students in at least one transfer-level English course increased by only 6 percentage points, from 31% to 37%, between the fall 2015 to fall 2017 cohorts. However, this percentage increased by 12 percentage points between fall 2017 and fall 2018, and by 9 percentage points during the subsequent academic year, rising to 58% by fall 2019. Again, the percentage decreased by 7 percentage points from fall 2019 to fall 2020.

Figure 3 displays the percentage of first-time college students who enrolled in below-transfer-level math and English courses from fall 2015 to fall 2020.

Figure 3. Percentage of first-time college students who enrolled in below-transfer-level math and English courses, Fall 2015 to Fall 2020




As shown in Figure 3, **as enrollment in transfer-level math and English courses increased after the implementation of AB 705, enrollment in below-transfer-level math and English courses dropped substantially during the same period**.

- **Math:** Enrollment in below-transfer-level math courses by students in their first academic year dropped only 4 percentage points, from 43% to 39% between the fall 2015 and fall 2017 cohorts, but it dropped 5 percentage points to 34% in fall 2018, 15 percentage points to 19% in fall 2019, and another 3 percentage points to 16% in the fall 2020 cohort.
- **English:** Enrollment in below-transfer-level English courses by students in their first academic year declined by 8 percentage points, from 33% to 25% between the fall 2015 and fall 2017 cohorts. From the fall 2017 to fall 2018 cohort, enrollment fell 6 percentage points to 19%, decreasing an additional 9 percentage points in fall 2019 and another 3 percentage points in the fall 2020 cohort.

Tables 2 and 3 below disaggregate enrollment in transfer-level math (Table 2) and English (Table 3) courses during a student's first academic year by race/ethnicity groups. **These tables show that enrollment in both transfer-level math and English courses substantially increased across all race/ethnicity groups in the post-AB 705 cohorts; however, disparities persist by race.** The lower enrollments of Black students suggest that the policy alone is not sufficient to address the structural barriers these students face. Conversely, Asian students were more likely to enroll in transfer-level math than other racial/ethnic subgroups.

Table 2. Percentage of first-time college students who enrolled in transfer-level **math** courses within their first academic year by race/ethnicity group

| Fall cohort | Race/Ethnicity | | | | |
|---|---|---|---|---|---|
| | Black | Latinx | White | Asian | Other |
| 2015 | 8% | 14% | 18% | 36% | 17% |
| 2016 | 9% | 15% | 19% | 36% | 19% |
| 2017 | 10% | 18% | 21% | 36% | 20% |
| 2018 | 15% | 24% | 29% | 45% | 27% |
| 2019 | 26% | 39% | 40% | 53% | 37% |
| 2020 | 25% | 36% | 36% | 50% | 39% |

Asian students show the highest percentages in transfer-level math enrollment across all cohorts, reaching over 50% in the fall 2019 and fall 2020 cohorts. Latinx students' enrollment in transfer-level math courses doubled between the fall 2015 and fall 2020 cohorts, growing to 36%, equaling the enrollment rate for white students in the 2020 cohort. While Black students' enrollment rates more than tripled between the fall 2015 and fall 2020 cohorts, their enrollment rate remains 11 percentage points lower than Latinx and white students in the fall 2020 cohort, exacerbating the racial disparity between Black and Latinx students from 6 percentage points in fall 2015 to 11 percentage points in fall 2020. Additionally, the enrollment rate for Asian students is twice as large as the rate for Black students in the fall 2020 cohort.

Table 3. Percentage of first-time college students who enrolled in transfer-level **English** courses within their first academic year by race/ethnicity group

| Fall cohort | Race/Ethnicity | | | | |
|---|---|---|---|---|---|
| | Black | Latinx | White | Asian | Other |
| 2015 | 18% | 30% | 35% | 36% | 29% |
| 2016 | 22% | 33% | 35% | 39% | 32% |
| 2017 | 24% | 38% | 37% | 42% | 34% |
| 2018 | 34% | 50% | 49% | 58% | 46% |
| 2019 | 45% | 61% | 55% | 60% | 53% |
| 2020 | 40% | 54% | 48% | 52% | 50% |

Again, transfer-level English course enrollment rapidly increased across all age and race/ethnicity groups in the post-AB 705 cohorts. Disparities across race/ethnicity groups are substantially reduced. Particularly, Latinx students' enrollment rates in transfer-level English courses in the post AB-705 cohorts either match or exceed those of white or Asian student groups, whereas Latinx enrollment rates in pre-AB 705 cohorts were less than the rates for these two groups. While the rate of Black students' enrollment in a transfer-level English course experienced a higher gain of 22 percentage points between 2015 and 2020, compared to 13 and 16 percentage points for white and Asian students during the same period, Black students' enrollment rate is still the lowest at 40% in the fall 2020 cohort. This enrollment rate is 8 percentage points lower than the next-lowest rate (white students at 48%) and is 14 percentage points below the highest rate (Latinx students at 54%).

## Trends in Transfer-Level Math and English Course Completion

In this section, we first examine how first-time college students' rate of completing transfer-level math and English courses within their first academic year changed in the post AB 705 cohorts (fall 2018 – fall 2020 cohorts). This analysis is important to observe the overall change in completion of transfer-level coursework in response to the policy change. However, we also examine how completion rates in transfer-level math and English courses among only students who enrolled in the courses have changed, to understand whether there are differences in rates of success for certain students.

Figure 4. Percentage of all first-time college students who completed transfer-level math and English courses within their first academic year, Fall 2015 cohort to Fall 2020 cohort

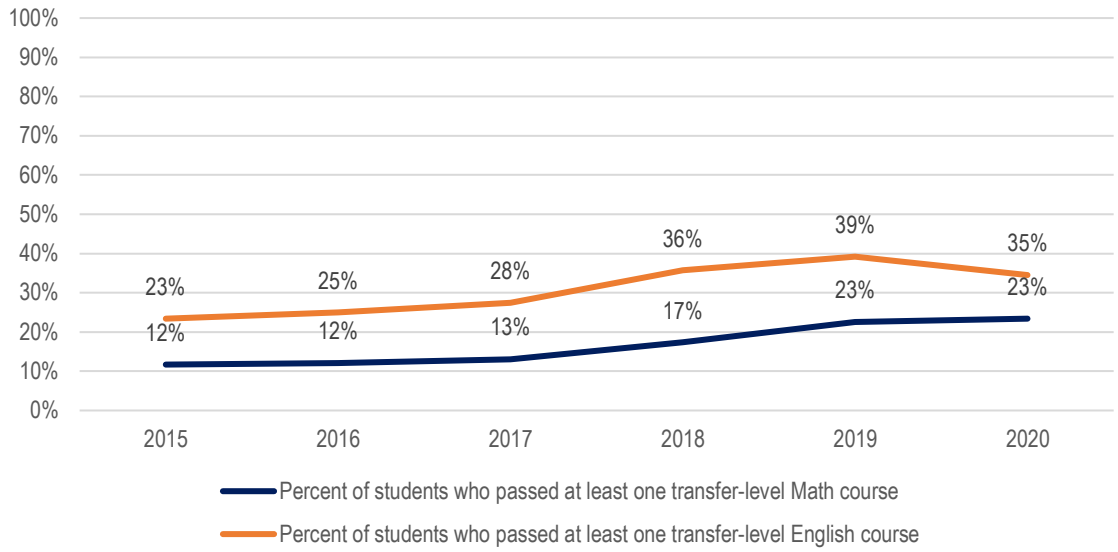



Figure 4 shows that **the percentage of all first-time college students who completed transfer-level math and English courses within their first academic year increased between the fall 2015 cohort and fall 2020 cohort.** For transfer-level math, only 12-13% of students completed a transfer-level math course in pre-AB 705 cohorts (fall 2015–fall 2017). This rate rose by 4 percentage points in fall 2018 and grew an additional 6 percentage points to 23% in the fall 2019 cohort. Completion rates of transfer-level English courses also rose from 23% – 28% in the pre-AB 705 cohorts to 35% – 39% in the post-AB 705 cohorts, showing an increase of 12 percentage points from fall 2015 to fall 2020.

One noteworthy finding is that increases in transfer-level math and English course completion rates are much lower than enrollment growth in the courses reported in Figure 2. This difference between enrollment and overall completion rates can be explained by decreased completion rates among students enrolled in transfer-level math and English courses in the post-AB 705 cohorts, as shown in Figure 5 below.

Figure 5. Completion rates for first-time college students enrolled in transfer-level math and English courses within their first academic year, Fall 2015 cohort to Fall 2020 cohort

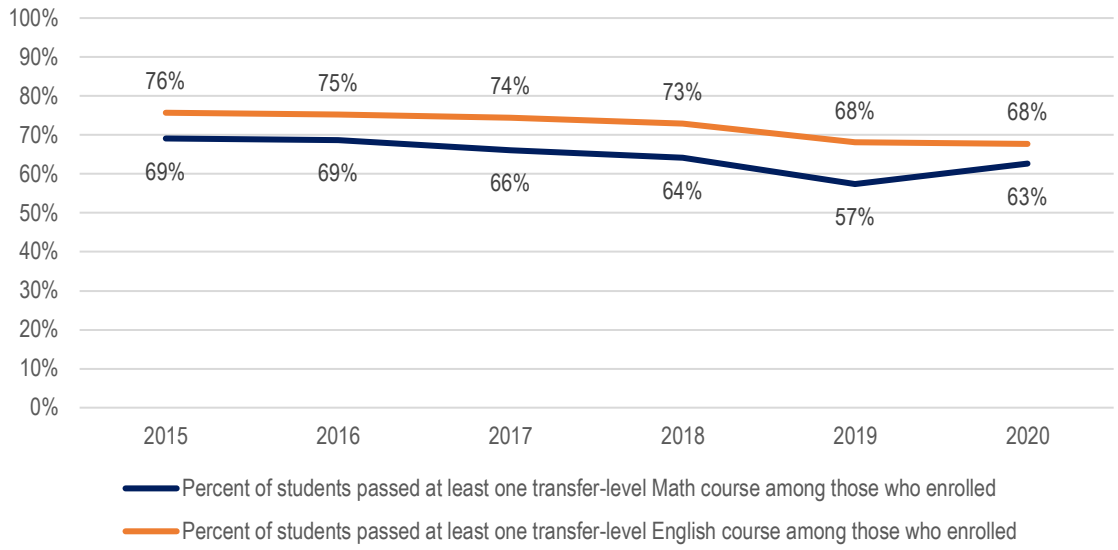



Figure 5 shows that **completion rates among those who enrolled in transfer-level math and English courses slightly decreased from the pre-AB 705 cohorts to the post-AB 705 cohorts**. Transfer-level math course completion rates decreased 2 percentage points in the cohorts before AB 705 but decreased an additional 5 percentage points in the post-AB 705 cohorts. For English, completion rates dropped only 3 percentage points between the fall 2015 and fall 2018 cohorts, but fell an additional 7 percentage points to 57% in fall 2019, before gaining back 6 percentage points in fall 2020. The drop in math and English completion rates may suggest that as more first-time college students directly enrolled in transfer-level courses in the post-AB 705 cohorts, more of those students needed additional support to pass the course.

Table 4 below disaggregates the percentage of students successfully completing transfer-level math courses within the first academic year by race/ethnicity groups. We see significant disparities in transfer-level math completion rates across race/ethnicity groups in the post-AB 705 cohorts relative to the pre-AB 705 cohorts. Black students' completion rate was 8-10 percentage points lower than that of white students in the pre-AB 705 cohorts and widened to 13-14 percentage points in the post-AB 705 cohorts. We also see completion disparities between Latinx and white student groups, suggesting persistent inequities across groups despite improvements within subgroups.

Table 4. Percentage of first-time college students who completed transfer-level math courses within their first academic year by race/ethnicity group, Fall 2015 cohort to Fall 2020 cohort

| Fall cohort | Race/Ethnicity | | | | |
|---|---|---|---|---|---|
| | Black | Latinx | White | Asian | Other |
| 2015 | 5% | 9% | 13% | 28% | 12% |
| 2016 | 5% | 9% | 14% | 28% | 13% |
| 2017 | 5% | 11% | 15% | 28% | 13% |
| 2018 | 8% | 14% | 20% | 34% | 18% |
| 2019 | 12% | 19% | 26% | 40% | 23% |
| 2020 | 12% | 19% | 25% | 41% | 27% |

The racial disparities in transfer-level math completion rates reported in the post-AB 705 cohorts can in part be explained by decreased completion rates among Black and Latinx students enrolled in transfer-level courses. Table 5 presents completion rates in transfer-level math courses disaggregated by race/ethnicity groups.

Table 5. Completion rates for first-time college students enrolled in transfer-level math courses within their first academic year by race/ethnicity group, Fall 2015 cohort to Fall 2020 cohort

| Fall cohort | Race/Ethnicity | | | | |
|---|---|---|---|---|---|
| | Black | Latinx | White | Asian | Other |
| 2015 | 59% | 62% | 72% | 78% | 70% |
| 2016 | 57% | 62% | 73% | 78% | 72% |
| 2017 | 53% | 59% | 71% | 78% | 69% |
| 2018 | 51% | 56% | 70% | 77% | 66% |
| 2019 | 45% | 49% | 67% | 75% | 61% |
| 2020 | 46% | 53% | 71% | 80% | 68% |

The Black and Latinx student groups' completion rates declined at substantially higher rates in the post-AB 705 cohorts compared to that of the white or Asian student group. This seems to suggest that colleges are not providing adequate support to Black and Latinx students enrolled in transfer-level courses.

Table 6 reports the percentage of students who successfully completed transfer-level English courses within the first academic year disaggregated by race/ethnicity groups. The passing rate increased by about 10 percentage points across all race/ethnicity groups in the post-AB 705 cohorts, and, thus, the racial disparity in passing rate persisted.

Table 6. Percentage of first-time college students who completed transfer-level English courses within first academic year by race/ethnicity group

| Fall cohort | Race/Ethnicity | | | | |
|---|---|---|---|---|---|
| | Black | Latinx | White | Asian | Other |
| 2015 | 12% | 22% | 28% | 31% | 22% |
| 2016 | 15% | 24% | 28% | 33% | 24% |
| 2017 | 16% | 27% | 30% | 35% | 26% |
| 2018 | 22% | 34% | 37% | 45% | 34% |
| 2019 | 25% | 38% | 42% | 48% | 38% |
| 2020 | 22% | 33% | 37% | 42% | 36% |

Table 7 reports completion rates in transfer-level English courses among students enrolled, disaggregated by race/ethnicity groups. Similar to trends in the transfer-level math completion rates reported in Table 5, the Black and Latinx student groups' completion rate declined substantially in the post-AB 705 cohorts compared with the rates of white and Asian students.

Table 7. Completion rates for first-time college students enrolled in passed transfer-level English courses within first academic year by race/ethnicity group, Fall 2015 cohort to Fall 2020 cohort

| Fall cohort | Race/Ethnicity | | | | |
|---|---|---|---|---|---|
| | Black | Latinx | White | Asian | Other |
| 2015 | 67% | 72% | 80% | 84% | 75% |
| 2016 | 66% | 71% | 80% | 85% | 77% |
| 2017 | 66% | 70% | 80% | 83% | 76% |
| 2018 | 63% | 68% | 80% | 83% | 73% |
| 2019 | 56% | 63% | 77% | 80% | 71% |
| 2020 | 54% | 62% | 77% | 80% | 71% |

## Summary and Next Steps

Overall, these descriptive trend analyses show that enrollment and completion rates for first-time students in transfer-level math and English have increased since the implementation of AB 705, supporting findings from other research focused on AB 705 (RP Group, September 2019). Enrollment in transfer-level math and English courses started rising in the rollout year (2018) and continued in 2019 and 2020 while enrollment in below-transfer-level math and English courses dropped substantially during the same period. Contrary to these increases in enrollment and overall completion rates, completion rates among those enrolled in both transfer-level math and English courses slightly decreased in the 2018, 2019, and 2020 cohorts compared to pre-AB 705 cohorts in years 2015 through 2017, suggesting that some students placed into transfer-level math or English courses were not provided with sufficient support to successfully pass the transfer-level course.

Although overall enrollment and completion rates in transfer-level math and English courses have improved since the passage of AB 705, inequity persists particularly for Black and Latinx students. Our analysis found that colleges enrolled more Black and Latinx students in transfer-level math and English in response to AB 705, echoing conclusions drawn from prior research (RP Group, January 2021). Given improved access, more students are passing transfer-level coursework post-AB 705 compared with pre-policy, but, similar to other research findings (Cuellar Mejia et al., October 2023), our results suggest that there is room for improvement in course completion, with persistent gaps in course pass rates across race. If AB 705 is to fulfill its goals to secure equitable outcomes, colleges need to not only increase enrollment among Black and Latinx students in transfer-level courses, but also provide adequate supports to ensure that those students complete the courses.

Our next steps in understanding the impact of AB 705 are to secure additional achievement data from the California Department of Education, which will be used along with the COMIS and CCCApply data in a series of quasi-experimental analyses aimed at demonstrating the impact of placement into transfer-level with and without supports, compared to placement in below-transfer-level coursework.

# Part II: Lessons Learned from AB 705 Implementation across Sample Colleges

## Review of the Literature on Implementation in California Community Colleges

As discussed above, the majority of the research on shifts in the wake of AB 705 in California has been focused on student enrollment and completion outcomes, specifically throughput. We now turn to survey and qualitative research conducted across the community college system to understand implementation, including potential promising practices and challenges to address.

In February 2019 and again in June 2020, the RP Group reported on annual implementation survey results from across the community college system, finding that campuses offered corequisite supports for introductory, transfer-level English and math courses in a variety of ways, including: required or optional; graded jointly or independently; for credit or non-credit; and/or linked or separate from the primary course. However, PPIC reported that the heavy unit loads associated with corequisite courses can deter students from taking those sections due to the extra time and work required (Cuellar Meija et al, December 2021). Other types of student support strategies in response to AB 705 include tutoring, supplemental instruction, embedded tutoring, early alerts to identify students who are struggling, and counseling (RP Group, February 2019; June 2020).

To further understand implementation, the RP Group (January 2021) conducted qualitative interviews with individuals at 14 institutions in early 2020. They found that participants described increased collaboration between departments and a shift in discussion among personnel toward student-centered perspectives. However, several persistent challenges remained, including faculty buy-in, providing adequate support to students, and obtaining timely outcomes data to support data-driven decisions. Reporting on promising practices based on interview data, Cuellar Mejia and colleagues (October 2023) identified the importance of institutional engagement and collaboration, including a systemwide growth mindset, effective student supports and resources, and a commitment to data-driven decision-making, as critical to student success. Similarly, although faculty commonly receive some professional development to support these shifts in practice, research has suggested that more professional development is needed; such efforts would be enhanced by dedicated funding for professional development and including equity training and best practice examples from other campuses in the trainings (RP Group, June 2020).

To further understand the challenges involved with policy implementation, we explore questions similar to those examined in these reports but employ a more in-depth case study approach that includes additional perspectives (notably, that of students). This report summarizes findings from our first fieldwork visit to institutions; subsequent reports will follow with updated information from the same set of institutions to understand implementation on those campuses as it continues to evolve.

## Data and Methods

Our implementation research is focused on the first three research questions listed above, which capture: **What** does implementation look like? (RQ1: *How are California community colleges implementing curricular reforms? How do institutional policies and practices regarding curricular reform vary across colleges?*), **Who** is implementing these reforms and what does it take? (RQ2: *How do institutional capacity and faculty buy-in affect institutional adoption and implementation of curricular reforms? How does capacity and faculty buy-in vary between math and English departments, and why?*), and **How** are these reforms being experienced by students? (RQ3: *How do student experiences vary between high, medium, and low implementation colleges, and why? What information are colleges providing to students regarding curricular reform? To what degree do students understand the curricular reforms taking place at their colleges?*).

We answer these questions with qualitative data obtained through interviews with 120 faculty and administrators and 43 student focus groups at site visits to 13 sampled colleges across the state. Following other qualitative research on AB 705, we wanted to identify colleges varying in implementation strength to include in our study sample. We build from other research which identifies low and high implementer colleges using the percent of introductory courses offered at transfer-level, along with ensuring representation across regions (RP Group, 2021), and include additional metrics associated with implementation[3]. The research team used a balanced sampling approach (Tipton & Olsen, 2022) to identify our sample colleges. We developed a Scale of Implementation that relied on four indicators: 1) proportion of introductory math and English courses offered at transfer-level, 2) prevalence of cocurricular supports, 3) placement measures utilized in math and English, and 4) placement guidance provided to students. Indicators 1 and 2 were obtained through the Systemwide Departmental Survey, administered across the system. We used data from the AY2021-2022 survey administration, which included 65 spreadsheets from math departments and 64 spreadsheets from English departments. Because implementation of AB 705 tends to be more complicated in math departments than English departments, due to the multiple math pathways available to students, we included in our sampling frame all institutions (n=65) that had submitted at least a math spreadsheet. Indicator 3 was obtained from a survey conducted by the CCCCO, and Indicator 4 was obtained through web review by our research team.

As shown in Table 8, the colleges in the sampling frame were not significantly different than those outside of the sampling frame, which gives us confidence that findings from our sample colleges may generalize to those not included in the analysis.

[3] We also took care to exclude from our study sample colleges that had participated in the RP Group's 2021 qualitative study.

Table 8. Descriptive statistics comparing colleges in and out of sampling frame

| Fall cohort | Sampling Frame | Others |
|---|---|---|
| Total colleges | 65 | 49 |
| Enrollment | 11,421 (SD 6,588) | 11,978 (SD 7,152) |
| Percent Black | 5% (SD 3.9) | 7% (SD 6.4) |
| Percent Latinx | 46% (SD 17.7) | 48% (SD 14.5) |

We binned the percent indices (indicators 1 and 2) into quintiles and assigned values from 1-5. We assigned each college an Indicator 3 value (1-3) based on colleges' responses to a CCCCO survey regarding AB 705 implementation conducted in 2020, and assigned each college an Indicator 4 value (1-5) based on AB 705 messaging directed to students available on the website. Composite scores across indices were summed, and colleges were binned into quintiles (1-5), yielding a group of colleges at the low (1), middle (3), and high (5) end of implementation.

Within each implementation band (1, 3, 5) we selected five institutions to comprise our study sample, with consideration for region, institutional size, enrollment of Black and Latinx students, urbanization, and variation in cocurricular supports offered. While we originally identified a group of 15 colleges for outreach, we ultimately secured participation from 13 institutions; 4 high implementers, 5 middle, and 4 low implementers. Table 9 compares the sampled colleges to unsampled colleges within the sampling frame. While the sampled colleges on average are smaller than unsampled colleges, enrollments of Black and Latinx students are comparable, as are the prevalence of enhanced courses and embedded counselors. We oversampled institutions offering corequisite courses, in part so that we could describe the variation of the structure of those corequisites, and better understand how that model is implemented and experienced by faculty and students on the ground.

Table 9. Descriptive statistics comparing sample colleges to unsampled colleges in the sampling frame

| Characteristics | Sample colleges (n=13) | Unsampled colleges (n=29) |
|---|---|---|
| Enrollment | 10,811 (SD 6,600) | 13,262 (SD 7,042) |
| Percent Black | 5% (SD 3.7) | 5% (SD 3.4) |
| Percent Latinx | 47% (SD 17.5) | 48% (SD 18.2) |
| Percent offering enhanced courses | 4% (SD 12.7) | 4% (SD 9.2) |
| Percent offering corequisite courses | 29% (SD 18.1) | 21% (SD 14.1) |
| Percent offering embedded counselors | 1% (SD 1.3) | 1% (SD 1.9) |

The implementation team conducted site visits to sampled colleges in fall 2022 and winter 2023, which included interviews with key administrators (often the Chief Instructional Officer, Vice President of Academic Affairs, Vice President of Student Services, and a Director of Student Advising), the deans and/or chairs of the math and English departments, two faculty each from the math and English departments, as well as four student focus groups. Interviews were recorded and transcribed, and transcripts were analyzed in Dedoose for themes related to implementation. We summarized findings for each institution in an institutional profile, which was shared with colleges as a form of member checking. Our team then synthesized results across profiles to identify the cross-site findings in this report.

## Preliminary Findings

### RQ1: What does implementation look like?

The first research question is aimed at understanding how colleges implemented the changes required under AB 705. We begin answering this question by considering how colleges changed their placement policies, then share findings related to cocurricular supports, instructional support strategies, supports outside the classroom, and the phasing out of developmental coursework.

#### *Introductory English and Math Course Placement Measures and Processes*

As shown in Table 10 below, the sample colleges in our study are indeed using multiple measures to place students, in many cases reportedly prior to the passage of AB 705.

Table 10. Heat map on placement measures used in introductory English and math in sample colleges after AB 705

| Placement measures | Number of sample colleges by placement measure | | |
|---|---|---|---|
| | English | Math – BSTEM[4] | Math - SLAM[5] |
| Cumulative high school grade point average (HSGPA) – as reported on transcript | 9 | 8 | 8 |
| High school coursework completed – as reported on transcript | 4 | 5 | 5 |
| High school grades in individual Math and/or English courses (non-cumulative HSGPA) – as reported on transcript | 5 | 5 | 4 |
| HSGPA – self-reported | 10 | 9 | 9 |
| High school coursework and/or grades other than HSGPA – self-reported | 5 | 11 | 11 |
| Guided self-placement instrument (e.g., survey) | 8 | 8 | 8 |
| Placement testing | 0 | 0 | 0 |

*Key: Common measures for placement recommendations based on number of institutions using each type of measure*

| | | | | |
|---|---|---|---|---|
| 0 colleges | 1-3 college | 4-6 colleges | 7-9 colleges | 10 or more colleges |

The key takeaways from Table 10 include the following:

- **Across sample colleges, placement testing is no longer required.** None of the study colleges reported requiring placement testing to determine course placement. In many cases, placement testing had been eliminated prior to the passage of AB 705.
- **High school coursework completed and/or grades in individual high school math courses are the most common placement measures in math.** Nearly all of the sample colleges reported using high school math courses completed and/or grades in specific high school courses to make recommendations for math placement. Colleges frequently make placement recommendations to students based on the last math class the student passed in high school, as self-reported on the guided placement survey. High school GPA, whether based on the official transcript or self-reported, as well as guided self-placement, are also used for placement recommendations in more than half of sample colleges.
- **In English, either official or self-reported high school GPA is the most common measure.** Incoming students typically only take introductory English courses, such as English 101 or English

[4] BSTEM stands for Business, Science, Technology, Engineering, and Math.
[5] SLAM stands for Statistics and Liberal Arts Math.

1. Colleges most often use high school GPA to determine whether to recommend introductory English with or without support.

In addition to the placement measures themselves, additional findings related to placement also surfaced through the research conducted during site visits to sample colleges:

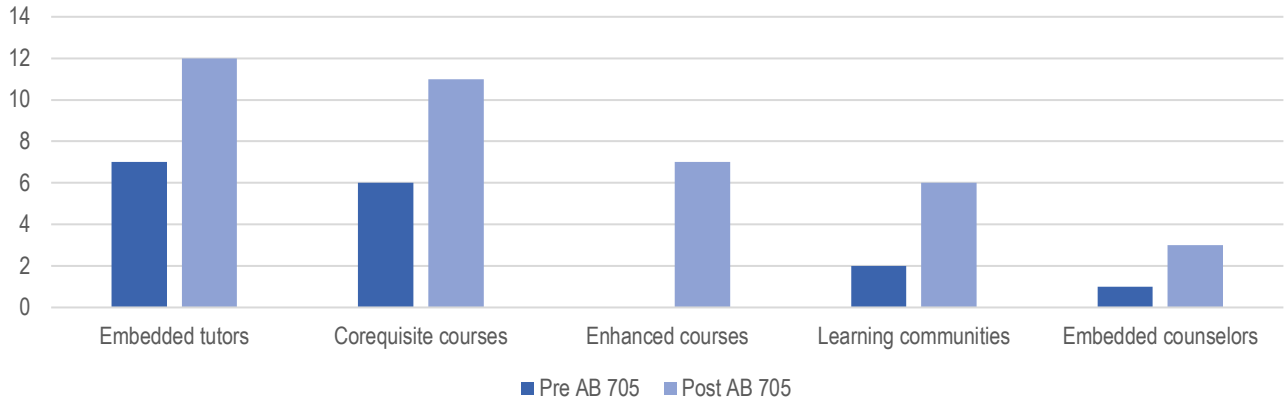
- **Nearly all study colleges adopted the default placement guidelines outlined by the Chancellor's Office.** The California Community Colleges Chancellor's Office recommended that students who graduated from high school within the past 10 years and have a goal of transfer or degree attainment be recommended to enroll directly into transfer-level courses based on a set of guidelines. While community colleges were not required to use these guidelines, those who chose not to were required to submit local data showing that their placement process was maximizing throughput for degree, certificate, and transfer students, which proved a deterrent in some cases.
- **Most sample colleges did not require students to enroll in a course section with cocurricular support but instead only provided recommendations based on the placement process, leaving students wide latitude on the course enrollments.** Although students typically met with a counselor to determine their first semester courses, they were not required to register for the courses with support that were recommended. Two of the study colleges were exceptions to this trend: in the first, both the English and math departments required students to enroll in a corequisite section if their high school GPA was below a specific threshold, while in the second, the college decided to require students to enroll in a corequisite course if they fell into the middle placement band in English; students determining that they would still not take a corequisite course had to complete a form to "opt out" of the support course.
- **Faculty were involved in determining the placement measures and processes for their departments.** College instructors play a central role in decisions made on campus, and therefore were heavily involved in determining how math and English placement processes would look after the passage of AB 705. In a few cases, however, administrators leveraged their positions to ensure compliance when faculty proposals were not in compliance with the law.
- **Multiple colleges reported collaboration across their district to establish consistent placement and registration policies.** In California, students will often take courses at different community colleges within the same district. For this reason, some district colleges felt compelled to develop aligned policies so that no single campus was at a disadvantage in recruiting and enrolling students due to placement polices considered less attractive by potential students.

### *Cocurricular Supports*

Because AB 705 encourages the placement of most students into transfer-level courses, colleges have developed a number of cocurricular supports to maximize student success. These include corequisite courses, enhanced courses, embedded tutors, embedded counselors, and learning communities, as shown in Figure 6 below. While in some cases these cocurricular supports were in place prior to AB 705, the development and implementation of these models have expanded in response to the law. It is important to understand that although this analysis discusses each cocurricular support model separately, they are often

combined in the same course section. For example, corequisite and enhanced courses often include embedded tutors, and a learning community-connected section may include embedded counselors.

Figure 6. Common cocurricular supports planned or implemented prior to and after AB 705 across sample colleges




As shown in Figure 6, **embedded tutors have been the most common cocurricular support model, both before and after the passage of AB 705**. Seven of the 13 community colleges used embedded tutors prior to AB 705, which increased to 12 after the policy was implemented. Colleges within the analytic sample were also more likely to offer corequisite courses post-AB 705, with an increase in frequency from six to 11 colleges. Learning communities were in place in nearly half of the sample colleges, while embedded counseling was the least common model. In the following section, we will discuss the common implementation practices of each type of support, as well as the successes and challenges of each model.

*Embedded Tutors*

Embedded tutors typically are community college students who have successfully completed an introductory math or English course and are then recruited by the faculty member teaching that course or by the campus tutoring center to provide support to students in that course during class time as well as outside of class. Embedded tutors often receive training from the tutoring center on their role and are available in the tutoring center to help students. As students who completed the course successfully and as peers of the students they tutor, embedded tutors were commonly described as being very valuable to both instructors and students; additional successes and challenges will be discussed in further detail below. In response to AB 705, the embedded-tutoring model expanded both within and across sample colleges. Not surprisingly, the number of embedded tutors declined during the height of COVID-19 as colleges struggled to simply continue providing classes online. Colleges are now trying to rebuild their embedded tutoring programs as more students come back to campus and courses are offered in-person.

### Successes with Embedded Tutors

- **Embedded tutors are commonly perceived to be a valued and effective resource.** At nine of 13 colleges, faculty and students praised the embedded tutor model, with faculty calling it "a game

changer" and students describing their tutors as "extremely helpful." One college reported that "data shows our students who attend tutoring do better… the vast majority pass their classes."

- **Embedded tutors are familiar with the content and the instructor's approach.** Having tutors in the classroom who have taken the class before with the instructor are familiar with how the class is structured and what content they are currently working on. Students shared that this was more helpful than working with a tutor in the tutoring center because "you don't have to explain… [and] waste your breath and time [because the tutor] already knows where you're at."
- **Embedded tutors are approachable.** Students and faculty reported that students are more comfortable speaking with tutors than faculty, because they are "more of a peer, who can help them". Faculty reported that embedding the tutors in the classroom reduces the stigma associated with seeking help.
- **Embedded tutors make help more accessible.** Students reported that it was nice to have another resource person in the room "because a teacher can't help everybody in the class, so …that way everybody's getting the help that they need." Faculty reported that tutors can provide individualized attention.

#### Challenges with Embedded Tutors

- **The biggest challenge is tutor turnover.** Strong community college students seldom remain at institutions for long, often transferring to four-year institutions to continue their education. As a result, the tutor pool is constantly shifting, and recruitment is ongoing.
- **Recruitment can be difficult.** Particularly when tutors are not paid competitively, off-campus work opportunities are often more desirable.
- **Some faculty expressed concerns about tutors' mastery of the material.** Faculty emphasized the importance of tutors having content expertise (i.e., being an English major, not just a strong student), which isn't always possible with a limited tutoring pool. Others shared the importance of being confident and "intrusive" when working with students, circulating and offering help, which reportedly not all student tutors are comfortable doing.
- **The model requires extra time and work on behalf of instructors.** Faculty at several colleges spoke about the additional time and work to plan and coordinate with the tutor. In most cases, this extra time is not compensated, which some reported was a disincentive for faculty to work with an embedded tutor. Another disincentive is having to learn how to effectively utilize the tutor in the classroom; some colleges have developed trainings to support tutor integration, which also demands more time of faculty.

### *Corequisite Courses*

Corequisite courses pair a transfer-level course in math or English with a separate support course to help facilitate student success. Typically, students register individually for the main course and the support course. In some but not all cases, the lecture and the support course both receive course credits or units (e.g., English 101 is a 3-unit course with a 2-unit support course for a total of 5 units). The corequisite model was already in place prior to AB 705 in at least five of the sample colleges and used in 11 sample colleges after AB 705 was passed.

**While the corequisite model has common characteristics, it has been implemented in a variety of ways that may influence the model's effectiveness.** During the college site visits, the research team found variation in sample colleges as to whether:

- Support courses or labs were offered as credit or non-credit; graded, pass/fail, or non-graded; whether the content and curriculum were consistent across sections; and whether attendance at the support course or lab is required or optional.
- The main and support courses or lab were taught by the same instructor; were scheduled to immediately follow one another or on different days; and were offered on-line, in person, or both.
- The instructor used the support course for additional lecture time or an opportunity to provide students with additional support on the material already covered during the lecture.
- An embedded tutor attended both the main and support courses, or just one or the other, facilitates the support course independently, or simply provides tutoring outside of class.

Due to the academic freedom available to faculty in California's community colleges, these variations can be found not just across colleges, but also within colleges and even individual math and English departments. A more extensive discussion of the challenges of the corequisite model is offered below.

### Successes of the Corequisite Model

Interview and focus group respondents in sample colleges identified the following aspects of the corequisite model as successful:

- **In introductory English, the corequisite model has been found to be more effective if taught in a computer lab.** In at least two sample colleges, the sections of introductory English were taught in a computer lab so that students could practice some of their writing skills and receive feedback in real time from the instructor and/or embedded tutor.
- **The model with the same instructor teaching both the main and support courses provides extra time to build skills and community.** Faculty teaching corequisite sections at five colleges shared that they appreciated the additional time offered to cover the content at a slower pace, provide just-in-time remediation, and incorporate community-building strategies to increase students' comfort with asking for help.
- **Non-STEM math corequisite success is encouraging**. In at least three sample colleges, faculty reported seeing increased completions among students in corequisites in non-STEM math pathways such as statistics.

### Challenges of the Corequisite Model

While the research has shown the model to be promising, this study found several challenges to the approach as well:

- **Corequisites are of limited value if the students who need the support are not enrolling in them.** Perhaps the biggest concern faculty shared was that students who needed the support most were not enrolling in the support courses. There were many explanations for this, including

confusion among students about the support course options, not having time in their schedule to enroll in them, not getting the right guidance from counselors, limited course availability due to faculty capacity, and reluctance among college personnel to make corequisites mandatory for some students.

- **Wide variation in course structure is confusing for students and faculty.** The structure of corequisite courses can vary within and across departments, and faculty are not always clear on how they should be using the time. One of the structural elements that can vary is having the instructor of the main course teach the support course. When this is not the case, the instructors of the paired courses must work to align their course content; otherwise, misaligned courses can result in confusion for students and faculty.
- **Registration challenges hamper the model.** Numerous faculty and administrators complained about difficulties they have encountered programming the two paired courses into their registration systems, ensuring that when a student registers for the main course they will be prompted to enroll in the support course. Colleges have taken different approaches to resolving this issue, sometimes creating one corequisite course that supports several main course sections or having to manually override the system in order to enroll students in the support course. Faculty describe the process as cumbersome and recognize that it is confusing to students. In addition, because they are two independent credit-bearing courses, it is possible for students to pass one and not the other, which sometimes means that students cannot retake the support course (having passed it) despite needing additional support to retake the main course.
- **Optional corequisite labs have decreased participation.** Some colleges have made corequisite support labs optional to reduce the burden on students, but faculty reported that this means that students will often prioritize the main class and will stop attending the support class.
- **Additional time and cost are a deterrent for students.** Corequisites demand additional time and require students to enroll in more credits, which come with increased financial costs for students. Faculty shared their concern that students who perceive that a subject is difficult are less likely to want to spend more time in that class. This also has equity implications, because some students are unable to make time in their schedule to participate in corequisites due to personal or work obligations, or struggle to afford the extra credit hours. Additionally, not all of these credits may transfer.
- **Students may not see the benefit of the additional time if there is just more content.** Students at several colleges complained that the support course was used to deliver new content rather than explaining the content of the main course. Some students reported that the pace was too fast and questions were discouraged. Faculty also expressed that longer classes can lead to disengagement among students who are enrolled.
- **The model carries an increased workload for faculty.** Faculty noted that teaching corequisites requires a lot of additional preparation, in part due to the need for differentiated instruction for the wide-ranging ability levels within courses. While some faculty receive additional stipends to teach corequisite sections, others are not compensated for this additional workload.

**In some cases, colleges have moved away from corequisite course sections in favor of the enhanced model, or simply eliminated corequisite course sections altogether without replacing them.** Due to concerns such as low enrollment levels, the large number of course credit or unit, and student confusion

over the process of registering for the support courses, at least three sample colleges eliminated the corequisite model and instead offer enhanced courses, which offer both the lecture and support aspects of the corequisite model in a single class session instead of separately.

*Enhanced Courses*

Some colleges have chosen to bundle the main and support courses into a single, extended class session rather than having them as two separate courses; we call this the "enhanced" model. None of the sample colleges were implementing this model prior to AB 705, but at least six sample colleges were implementing or plan to implement the model in response to AB 705. Of the sample colleges implementing this model, most used it only in the English department. As mentioned previously, three of the seven sample colleges implementing this model shifted to it in response to concerns they had after implementing the corequisite model.

### Successes of the Enhanced Course Model

- **Extra time to build skills and community.** Similar to the corequisite courses, enhanced courses afford extra time to cover the content at a slower pace and incorporate community-building strategies to increase students' comfort with asking for help.
- **Students receive additional support with less time and fewer additional credits.** Enhanced courses can provide similar levels of additional support as the corequisite course, by adding just one credit to the single course.
- **Additional support without the registration confusion.** Colleges which have adopted this model have indicated that the registration process is more easily understood and implemented than the paired course model.

### Challenges of the Enhanced Course Model

- **All course credits may not transfer.** We heard that some of the enhanced course credits may not transfer to the CSU or UC system, which creates confusion for students and may serve as a disincentive.
- **Student skill levels vary widely.** As with corequisite sections, the variation in student ability in enhanced sections requires differentiated instruction, which can be challenging for faculty.
- **Enhanced sections are voluntary.** Students who may benefit from this model may choose instead to enroll in a section without support rather than selecting a course that is longer and carries more credits.
- **Longer classes can affect engagement.** Faculty shared the concern that students' attention can drift and it can be difficult to keep them on task for long periods of time.

*Learning Communities*

For the purposes of this study, the research team explored introductory math and English courses embedded in learning communities, as opposed to learning communities that operate on a campus to support particular communities of students which do not have individual course sections associated with

them. Such a model was identified in six colleges. In one site, for example, the college offers two learning communities (Umoja and Puente) and reserves at least one section of a course for individuals participating in a learning community as a way to provide extra support by attending classes and other activities together.

#### Successes of the Learning Communities Model

- **Community building.** Faculty teaching the sections associated with the learning communities emphasized the community-building that occurred in the classes, which helps students feel connected to school and willing to ask for help.
- **Students feel understood.** Students reported feeling that their faculty and dedicated program counselors understood them and their experiences better.
- **Faculty can leverage counselor relationships.** Faculty mentioned that they could leverage the close relationships that dedicated counselors have with students to work "in a more intensive way" if they are struggling in class.

#### Challenges of the Learning Communities Model

- **Participation in learning communities requires significant time commitment.** Students and faculty in learning communities praised the model, but offered that participation was inaccessible to all students because of the time commitment it requires. Students with off-campus jobs and/or family responsibilities may struggle to commit to such a program, missing out on important community-building opportunities and college navigation support.
- **Students enrolled in learning communities have limited schedule flexibility.** Because only a handful of sections of math and/or English are designated as sections for the learning community, students have fewer options to choose from when creating their course schedule.

### *Embedded Counselors*

Introductory math and English course sections sometimes include counseling support to help students succeed. This model of embedded counseling was identified in three of the sample colleges. In one instance, some introductory math sections have an embedded counselor who comes into the classroom once a week to discuss issues like math anxiety. Faculty and students using this model have found it helpful. Students at colleges implementing this model noted that it introduced services and resources that they otherwise might not have found or sought on their own, and students who had not yet experienced this support expressed that they wished it was available to them. Some faculty reported that other faculty are not interested in providing this support because it takes away from instructional time.

## *Instructional Support Strategies*

Regardless of whether colleges have restructured course sections, many individual instructors have shifted their pedagogy to support a more diverse student population in their introductory courses. Common strategies found in multiple sample colleges include the following:

- **Culturally responsive and equity-minded approaches to teaching:** Faculty respondents in at least five of the sample colleges reported new practices such as "incorporating more culturally responsive content" and "changing their pedagogy to include equity-minded practices." One instructor summarized that AB 705 was a "cognitive shift" away from an "elitist mentality" and explained their instructional strategies as "just getting to know your students a little bit better on a personal level… more communication and culturally responsive experiences." Faculty at yet another college have engaged in professional development called Project PROMESAS which focuses on equity-minded practices.
- **Skill building through "just-in-time remediation" and individual feedback:** This type of individual student support was reported in at least five colleges. Faculty are working to "approach each class seeing what the needs of the students are and trying to meet them as they go." For example, the English faculty at one sample college all provide "video feedback" whether they are teaching in-person or online, instead of written feedback. At another college, the English courses include student conferences and peer review to discuss the writing. Instructors also reported working on assignments together with students during class time.
- **Instructional scaffolding:** Faculty across several institutions, particularly in English, reported breaking down assignments into manageable steps for students instead of assigning an entire project at once. One English instructor explained that they scaffold instruction by breaking essays into parts, starting with the thesis statement, and providing individual feedback at every point in the process.
- **Flexible deadlines and extra time on assignments:** Both students and faculty at about half (7) of the study colleges reported more flexibility with deadlines for assignments. Faculty reported implementing more lenient policies regarding accepting late work and student focus group participants expressed their appreciation for this change in classroom practice.
- **College success skills:** DE courses often served as an introduction to college, providing students with opportunities to develop college success skills such as time management and study skills. Now that students are being placed directly into transfer-level coursework, many faculty teaching those courses recognize that they need to embed additional content focused on study skills and what is often referred to as the "affective domain[6]" in addition to course content. Part of instructional support, according to one English instructor, is "not just teaching students… but showing them what being in college is like." Similarly, a math instructor reported teaching "study skills, how to be a college student, time management… not just math." At another sample college, math faculty reported teaching "soft skills" in the corequisite support labs, including working on note taking and good study habits.
- **Student collaboration and small group work:** Faculty members in several institutions are also having students work together on assignments during class time, as well as working together during joint assessments. Group work can also include peer review and pairing stronger students with others who need additional support. In math, one of the sample colleges purchased new tables and chairs that can be easily moved, modularizing the classrooms to facilitate group work.

[6] The affective domain refers to psychological and emotional factors that can interfere with a student's ability to engage with class content and perform according to their potential. This resource from the California Acceleration Project has been widely circulated: https://accounts.smccd.edu/bellr/AffectivePractices.pdf

- **Flipped Classroom:** Math faculty members in at least five of the sample colleges mentioned using the flipped classroom model of instruction which aims to increase student engagement and learning by having pupils explore content outside of class, and work on assignments to practice their skills during class.
- **Contextualization:** English instructors from at least three campuses reported that they are assigning readings and projects that focus on a particular area of student interest.

### *Supports Outside the Classroom*

In addition to the cocurricular supports provided in connection to specific introductory math and English course sections, the sample colleges also provide additional supports outside the classroom to help students succeed. These include both academic supports and programs that address the basic needs of students, including health and wellness.

**Along with embedded tutoring, other tutoring supports and supplemental instruction are commonly available on campuses and were identified as important resources for students.** Tutoring centers and programs were found across the sample of colleges, and in some cases have expanded their services in response to AB 705. Some campuses offer a single tutoring center, while others provide multiple centers that focus on specific subjects, such as writing and math. Tutoring services are generally available to all students, except at two sites where students must first enroll in a course to grant them access. At least five colleges also offer tutoring services online. Several colleges offer supplemental instruction in which trained student instructors provide additional instruction to their peers outside of class on topics from the course; unlike embedded tutors, supplemental instructors may observe lectures in the classroom but do not provide help during class time.

**Colleges are focusing on providing additional academic supports outside of the classroom specific to improving students' skills in math.** With the decrease in or elimination of developmental education courses in math, colleges have developed additional academic supports to help students succeed in math. Examples include:

- Providing a non-credit class which provides assistance in mathematics as a completely free service;
- Hosting a math lab adjacent to math faculty offices with a full-time instructional support specialist to provide tutoring and facilitate student and math faculty interaction;
- Offering pre-semester math bootcamps (sometimes called Math Jams) that provide students with the opportunity to practice their math skills in preparation for an upcoming math course;
- One-and-done summer course with wraparound supports including food, counselors, and transportation.

**Beyond tutoring, sample colleges also provide support for basic needs, health and wellness, and navigating college.** Services such as food pantries, support groups, workshops on issues related to mental health, and clothing closets were reported across multiple colleges as helpful resources. Several colleges also reported working with students on housing, transportation, and other basic needs. Additional services included First Year Experience programs, expanded library hours and supports, and group department

office hours with tutoring support. Further, every community college in California is in the process of implementing Guided Pathways, which is aligned with AB 705 by providing students with "clear enrollment avenues, course-taking patterns, and support services."

### *Elimination of Developmental Coursework in Sample Colleges*

As of spring 2023, most institutions in our sample (9 of 13) had eliminated all math and English below-transfer level course offerings. Among these colleges, most had **gradually eliminated below-transfer level courses over the last five years.** Trends in the status of below-transfer level courses across sites included in the sample should be understood in the context of content areas. **English and Math departments have followed different pathways towards the dissolution of below-transfer level courses**. English departments tended to engage in the process of accelerating their below-transfer level courses and eliminating them earlier than math departments. Three of the sample institutions still **require below-transfer level courses as prerequisites** for subjects such as Chemistry and Nursing.

In the interest of being student centered, two colleges in our sample reported allowing students to enroll in below-transfer level courses upon request. One sample college maintained a section of below-transfer level English designated for English language learners and students with disabilities.

Faculty at several colleges expressed the concern that eliminating pre-transfer courses has **limited access to STEM math pathways** for students, by removing the "on-ramp." These faculty suggested that because California only requires two years of high school math, many students need additional content knowledge to be successful in STEM math courses.

Across the sample institutions, there were three student populations about whom faculty and administrators consistently expressed concern regarding throughput due to the elimination of pre-transfer level courses: students with disabilities, English language learners, and students returning to school after having stopped out for extended time periods.

## RQ2: Who is implementing these reforms and what does it take?

Our second research question focuses on two factors known to influence institutional adoption of large-scale reforms: stakeholder buy-in and institutional capacity. We define institutional capacity as the ability of an institution to mobilize the needed resources to manage an organizational change. We begin by examining the impact of COVID-19 on institutional capacity, then discuss the role and capacity of three key stakeholders—faculty, administrators, and counselors—before sharing findings related to professional development and four types of resources instrumental to making the needed changes on campus in response to AB 705: human, financial, materials and curriculum, and technology.

### *Influence of COVID-19 on AB 705 Implementation*

The COVID-19 pandemic was a significant strain on institutional capacity. As noted earlier, for most colleges, the pandemic began in the middle of the second semester of full AB 705 implementation. Colleges were just finding momentum in their new course offerings, learning what worked with support courses,

and enrolling most incoming students in transfer-level coursework. Then colleges had to abruptly shift all instruction online, leaving many faculty scrambling to learn how to teach in the online environment while dealing with the personal impact of the pandemic. Most colleges saw significant enrollment declines during this period. Most spring 2020 courses were changed to pass/fail, recognizing the challenges that students and faculty were facing. AB 705 implementation at many colleges was stymied.

Respondents shared with us that the impact of COVID was not experienced universally. Colleges located in lower-income communities encountered more students dealing with loss and hardship and who were unable to continue with their coursework due to unreliable internet access or family responsibilities. Faculty at these colleges recalled their pain at watching students struggle, and struggling themselves, at the height of the pandemic, and expressed frustration that AB 705 implementation was not paused during this time.

During our fieldwork in fall 2022 and winter 2023, we heard from faculty that they were still adjusting to being back on campus and teaching in person. Many colleges still have much higher proportions of classes being offered online than they did pre-pandemic, about which faculty and administrators have differing opinions. We heard concerns from many faculty, particularly math faculty, about academic integrity in the online classroom.

Relationships between faculty and students as well as students' relationships with each other were compromised during COVID. Many faculty shared their perception that current in-person students lack interpersonal skills as a result of being in online education for the last few years.

Lastly, students who were in high school during the pandemic were recipients of online instruction with decreased expectations for content engagement and knowledge acquisition. Consequently, as these high school cohorts enter college, there is an increased number of students entering college without the self-management and academic preparedness skills that allow them to succeed in college due to the tenuous structure of high school instruction during the pandemic.

### *Faculty, Administration, and Counselors' Roles in Implementation*

As outlined in the theory of change, it is also important to understand the roles and capacity of institutional practitioners and how they influence the implementation of campus responses to AB 705. Because reforms targeted placement and curriculum, faculty were critical actors, but they could not manage all of the institutional changes needed to respond to AB 705 without the support of administration and counselors. In the section that follows, we will discuss roles of faculty, administrators, and counselors; the professional development provided to support implementation; the human, financial, curricular, and technological resources leveraged in institutional responses to AB 705; and the impact of COVID-19 on institutional capacity.

#### *College Faculty: Leading the Charge, Shifting Mindsets and Strategies, and Feeling Overwhelmed*

**English and math faculty were the drivers of their institutional responses to AB 705 across their respective colleges.** With curriculum seen as the exclusive domain of community college faculty in

California, there was consensus across colleges that faculty have led most of the implementation efforts. This work has included the review and revision of course placement guidelines, designing cocurricular support courses, providing professional development, facilitating communities of practice, and adopting equity-minded instructional practices, among other efforts.

**Although faculty have been leading the work of implementation, their level of buy-in to reforms in response to AB 705 has been mixed, and is generally stronger in English than math departments.** Faculty commonly recognized that the increased number of students completing introductory, transfer-level courses has been a success. Many faculty shared the realization that DE courses were harming students. One faculty member observed that there had long been a stigma associated with DE courses and students would often refer to these classes as "dummy classes" that made them feel "stupid." Further, AB 705 has changed the focus and priorities on campuses from offering DE courses for underprepared students to emphasizing students' success in transfer-level classes and providing supports; a faculty respondent explained that AB 705 "really opened people's eyes to [student] success." Faculty teaching transfer-level English and SLAM math reported seeing students succeed in their courses, which has enhanced their level of buy-in.

At the same time, faculty also commonly expressed concerns around the ways in which reforms in response to the law may have harmed students. For example, some faculty felt that the policy change disregards the goals and interests of students not interested in transfer and narrows the mission of community colleges. Faculty reported that the needs of students with disabilities and English language learners, as well as other students who have been poorly served by their feeder high schools, may not always be adequately addressed in transfer-level courses and could be better served in DE courses. Participants also expressed concern that the impact on students was not fully captured by the data, noting that there are "lost students" who drop before census and are therefore not included in course completion analyses. Instructors also noted potential financial jeopardy for students, as failing an introductory, transfer-level course three times can result in the loss of financial aid. Such concerns were more common among math faculty than English faculty but were found in both departments.

**A deficit mindset persists among some faculty members.** The perception persisted among faculty in more than half of the sample colleges that some incoming students do not have the necessary basic skills to succeed in introductory, transfer-level courses**.** The elimination of remedial classes was also seen as detrimental to some students. As one math faculty member commented, "most of our faculty believe that we should offer [DE as an] option" for students who want it. Some faculty had concerns that AB 705 did not work well for some "sizable minorities" who are overwhelmed in transfer-level courses and drop out. Faculty often used coded or race-avoidant language in their responses, despite AB 705 having been motivated by racial inequities. Additionally, some English faculty felt that AB 705 was not meeting the needs of students with literacy challenges. One faculty member commented that "AB 705 is destroying my students...[because] it is one-size-fits-all" and some students are "extraordinarily underprepared."

**The implementation of AB 705 has led to some shifts in faculty pedagogy.** Some faculty reported that the legislation prompted them to be more innovative, to experiment with new ways of teaching, and to incorporate more culturally responsive approaches and content. Faculty were thoughtful and reflective

about their teaching practices and expressed appreciation for opportunities to plan and learn together with their colleagues, as well as the support they received from their deans/chairs.

**To help students succeed in introductory, transfer-level courses, faculty provided additional academic support both in and outside the classroom.** Supporting student success takes considerable time and energy from faculty. Faculty reported providing extra office hours and providing tutoring in the evenings and on weekends to help their students succeed. Providing additional academic support has required additional preparation time, including planning with embedded tutors. Some faculty reported feeling pressure to be available to students around the clock.

**Faculty members reported feeling overwhelmed by the challenges involved with the implementation of AB 705.** Instructors said that they felt tired, overworked, and undercompensated for their efforts in response to AB 705. Both math and English faculty explained that the extra demands and hours are exhausting and may be "unsustainable." In some cases, faculty reported high levels of burnout from implementing reforms in response to AB 705 in the midst of the pandemic, while others expressed the potential for burnout and the need for self-care. Faculty members also reported feeling "demoralized" due to high failure rates in their classes despite their efforts. Several faculty members shared that they are considering leaving the field.

**Concern was expressed by faculty that they may not have the guidance and training needed to address the demands of AB 705.** Some faculty reported that the new legislation offered few models or guidance for implementation; instead, they just had to "go do it." At the same time, faculty often do not have pedagogical background on how to meet the needs of all students.

*College Administration: Supporting Implementation through Convening and Resourcing*

**College administrators facilitated conversations among faculty leaders on how to implement cocurricular and placement reforms in compliance with AB 705 and had final decision-making authority, but played a more limited role than faculty in making recommendations on specific shifts in college policy and instructional practice.** In at least nine sites, respondents reported that administrators such as vice presidents primarily played a support role to faculty who drove the process of institutional response to AB 705. While at times offering math and English faculty recommendations and cocurricular models from other colleges to consider, administrators provided limited direction to faculty on how to best address AB 705 requirements and implement reforms.

**Colleges commonly established a task force or other vehicle to coordinate AB 705 implementation.** Respondents reported challenges around the coordination of institutional responses to AB 705, noting that the policy requires extensive communication and collaboration across departments that are often siloed. To address this challenge, administrators in at least eight sample colleges developed a vehicle for coordination of their institutional response, including an AB 705 task force or working group, the appointment of an AB 705 coordinator, and regular meetings between administrators responsible for academic and student services.

**College administrators in at least seven institutions helped support the work by providing resources requested by faculty.** Resources have included financial support for faculty to attend conferences related to instructional and cocurricular reforms related to AB 705, stipends to compensate faculty for the work involved in the reforms, release time for internal professional development workshops and/or the additional work involved in planning the math or English department's response to AB 705, as well as other resources.

**College administrators from at least four colleges provided and/or analyzed data to support case making for AB 705 implementation and determine the impact of the reform.** Several colleges brought outside speakers, such as representatives from the Chancellor's Office or the California Acceleration Project to talk with faculty and, in one case, analyze the institution's data to demonstrate the negative impact of DE placement. At one college, an administrator reviewed data on enrollment to monitor scheduling and implementation. At another, administrators relied on college data to show differences between success rates among different groups of students and to "shine the light" on current policies that were not benefiting students.

**At least two of the smaller colleges experienced considerable administrative turnover, which influenced the role of administrators in AB 705 decision-making and the capacity of the college to shift policy and practice.** Retention issues among administrators only strengthened the role of faculty in determining the institutional response to AB 705 and limited the background and knowledge that administrators could bring to the table.

*Counselors: Redefining their Role in Placement*

**Counselor involvement in institutional planning for AB 705 implementation was limited.** As mentioned, the faculty in the math and English departments have been the primary drivers of institutional responses to AB 705, with some support from college administrators. At the majority of colleges, however, the counseling staff played a limited role in these decisions; representatives from the counseling staff were reportedly involved in AB 705 planning groups at only five of the sample colleges.

**Faculty and administrators perceived counselor buy-in to AB 705 to be mixed across sample colleges and suggested that this created barriers to implementation in some cases.** Faculty and administrators from at least five colleges reported that counselors commonly feel there should be DE course options for students who request them. Low levels of buy-in may be, in part, a result of a perceived deficit mindset among some counselors, which was reported in at least four of the sample colleges. While in some cases counselors are reportedly "staying on message" in encouraging students to enroll in transfer-level courses, in other cases counselors continue to encourage some students to take pre-transfer level courses if they are offered. Resistance from the counseling staff hindered the development of cocurricular supports at one campus where they "kept throwing up roadblocks" which required intervention from the college's Academic Senate.

**While counselors are available for course registration support, students are not required to meet with counselors before registering for their first semester courses.** The changes in the placement process have limited the role that academic counselors once held in initial course registration. None of the

sample colleges reported requiring students to meet with an advisor in order to be eligible for course registration, and colleges provide students with recommendations for their first-year courses as opposed to placement results, as was often the case prior to AB 705. Nonetheless, students still commonly meet with counselors as part of the course registration process, and their recommendations, often aligned with the student pathways or programs of students, are strongly considered by many students as they register for courses.

**Along with support in the registration process, counselors also provided additional resources for students.** To help students succeed in their classes once they are placed, counselors from at least six sample colleges provide targeted outreach to those identified by faculty as struggling through an early alert system, such as Starfish. Counselors would also reach out to students periodically with reminders of upcoming deadlines and to make sure they were aware of services available to them on campus. Additional student service resources for students included health and wellness programs, counseling centers, and dedicated counseling courses.

### *Professional Development*

As noted above, reforms associated with AB 705 encouraged faculty to change their instructional practices. This led colleges to invest in the capacity of faculty, and in some cases administrators, through the provision of professional development.

**External conferences, most commonly those hosted by the California Acceleration Project (CAP), have provided helpful resources for faculty on implementing cocurricular initiatives in the classroom, particularly for English faculty across colleges.** Such conferences helped to develop faculty and administrator awareness of what was required through AB 705 and how to respond, as well as providing suggestions for many of the reforms implemented across colleges. Some faculty have also attended other events, such as the California Community College Success Network (3CSN) trainings and the Strengthening Student Success conferences. Colleges typically covered faculty expenses for attending external professional development conferences such as CAP.

**Individual colleges have also provided internal professional development, typically offered by English and math faculty through workshops and ongoing communities of practice meetings.** Such trainings commonly focus on shifting pedagogical strategies and leveraging practices to address issues of equity**.** At one college, workshops have been provided to faculty in math and English on a series of topics, including how to increase student engagement online, how to maximize support courses, how to work with embedded tutors, and how to use student outcomes data. At another, the college offers a series of in-house professional development sessions (20 hours) on corequisite course instruction, as well as follow-up community of practice meetings (20 hours) that focus on new pedagogical techniques and equity minded teaching practices. In a third college, the English Department utilizes a faculty inquiry group model in which faculty have been working together on issues around equity and shifts in pedagogy.

**Internal professional development is often voluntary for faculty, making it hard to ensure that all faculty are prepared to implement the cocurricular initiatives designed to support AB 705.** In a few cases, however, professional development has been required of faculty teaching cocurricular course

sections. At other sample colleges, faculty were given a stipend for attending professional development, which provided an incentive for part-time faculty to participate.

### *Resources: Human, Financial, Curricular, and Technological*

Research participants shared resource needs and challenges associated with implementation, in particular the influence of human and financial resources, curricular materials, and technological capacity in AB 705 implementation.

#### *Human Resources*

**The elimination of developmental education courses resulted in the reassignment or resignation of some faculty.** Following the enactment of AB 705, colleges reduced or completely eliminated DE courses, requiring colleges to shift faculty teaching responsibilities. At six of our 13 colleges, respondents reported that some faculty had resigned or been reassigned. Faculty who had taught DE course classes were now responsible for teaching transfer-level courses. Conversely, faculty who had only taught upper-level courses were asked to teach an increasing number of introductory sections. In some cases, faculty had to update or earn new credentials to teach more rigorous coursework. In others, faculty left the college if they were unable or unwilling to make the transition.

**The faculty reported that the implementation of shifts in response to AB 705 have required significant additional time and effort.** Institutional responses to AB 705 required faculty to work on redesigning curriculum, developing support courses, moving courses through the approval process, participating in professional development, and responding to staffing shortages, as well as other tasks**.** Although colleges have piloted promising initiatives such as Math Jams and programs providing Black and Brown students with wraparound support, many faculty expressed concern that the colleges lack the human capacity to scale these up.

**Compensation for faculty in response to the additional effort required in response to AB 705 varied.** At several colleges a point person was assigned and compensated to spearhead AB 705 implementation activities. In other cases, curriculum redesign was included in faculty contracts and additional compensation was not provided. Even in cases where compensation was provided, faculty frequently reported that the extent of the work involved in responding to the law exceeded compensation amounts. There were also compensation disparities between full-time and part-time faculty; at one college, part-time adjuncts were not compensated for the additional time required to learn how to teach using cocurricular supports and offer students the support they need to be successful, while at another site, part-time faculty were provided with compensation as an incentive to participate in internal professional development. Release time was commonly provided to faculty involved in professional development, learning communities, and other activities and services related to AB 705 implementation.

**In the wake of COVID-19, colleges have struggled to fill both instructional and support staff vacancies.** There has been a particular shortage of available and qualified tutors, especially embedded tutors. Severe understaffing has prompted one college to recruit tutors from the community as there is a "supply problem." At another college, non-teaching faculty and others with a background in English have

been recruited to teach because of the need. Colleges have used grant funding to recruit and hire additional tutors and raise the hourly wages of tutors to "be more competitive."

*Funding*

**Most colleges reported reallocating categorical funds and using COVID recovery funds to support AB 705 implementation activities.** Funding to support AB 705 implementation was largely drawn from categorical funds including Student Equity and Achievement (SEA), Title V, Basic Skills, Hispanic Serving Institutions (HSI), and Guided Pathways. Additionally, colleges used the savings incurred from the closing of testing centers and the cancellation of placement test contracts to fund AB 705 implementation efforts.

**Colleges used their reallocated funds to invest heavily in their tutoring programs.** Although colleges have funded a number of different efforts in response to AB 705, tutoring has been an area of focus in at least four colleges, including recruiting and hiring more embedded and non-embedded tutors, increasing tutor pay, and making improvements to tutoring centers. Colleges redirected funds to expand the tutoring opportunities and make tutoring available to more students. Colleges also used reallocated funds for purchasing student laptops, covering conference and professional development expenses, funding new staff positions, and providing faculty leaders responsible for the institutional response to AB 705 with stipends to develop support courses and support professional development within their English and math departments, among other efforts.

**Colleges acknowledged that the reallocation of categorical funding streams is unsustainable.** The current funding streams, relying primarily on the reallocation of categorical and COVID recovery funds, has been a short-term solution to support AB 705 implementation activities, but is unsustainable in the long-term. Faculty lamented the lack of sustainable funding to support tutoring and professional development to ensure consistent implementation across departments.

*Materials and Curriculum*

**Some colleges developed new courses or modified existing courses in response to AB 705.** At least one college added a credit to all sections of the introductory English course, which faculty reported was helpful in providing additional support to students. This was distinct from the enhanced model in that this extended-length course could also be paired with a support course. At least two other colleges developed or modified existing math courses, particularly in the non-STEM pathway. In one case the department reworked an associate-degree level course into a transfer-level course. On another campus, the department developed a new transfer-level Mathematical Reasoning course. Faculty also worked to identify and/or develop new curricula and materials for the corequisite support courses and enhanced courses.

On several campuses, these shifts included new materials and approaches described as "culturally relevant" or "equity-minded." Materials included workbooks to support student skill building, Open Educational Resources (OERs) and a commitment to providing "no cost textbooks", and online/video resources that students could use outside of class to review lessons. At least two colleges also installed whiteboards throughout their math classrooms to increase student engagement.

*Technology*

**Colleges commonly needed to make technological revisions to their application, placement, and course registration systems in response to AB 705.** Examples of changes that needed to be made included:

- Developing self-guided placement tools allowing students to receive placement recommendations and register for introductory courses in a more streamlined manner;
- Addressing challenges in connecting corequisite support courses with their related main courses, such as overriding error messages and course caps; and
- Automating the transfer of student placement data from the self-guided placement tool to the course registration system.

In addition, several colleges purchased laptops or Chromebooks to support student connectivity during the pandemic, as well as ensuring that computer labs were reserved for introductory English courses so they could practice writing skills during class time.

### RQ3: How are these reforms being experienced by students?

During our site visits, we conducted focus groups with students in introductory math and English courses, typically convening four focus groups of various sizes, in some cases speaking to most students in a course section. We focus here on findings related to student awareness of reforms associated with AB 705, student perspectives on placement accuracy, their agency to select courses, their experiences with curricular reforms in math and English, and their perspectives on instructional strategies and pedagogical approaches colleges are developing in response to AB 705. We have not yet conducted the analysis to answer RQ3 comparing student experiences between high, medium, and low implementation colleges, but anticipate being able to conduct that analysis in year three. Nor do we currently have qualitative data to answer RQ3c about how students' experiences of curricular reform vary across student characteristics such as age, race/ethnicity, income, and level of preparation, although given the findings from the quantitative analysis presented earlier, we look forward to exploring the experiences of students with an explicit racial equity lens during our site visits in year four.

#### *Student Awareness of AB 705*

In our focus groups with students in introductory English and math courses, **most students reported not having previously heard of AB 705**. The few students who had heard of the law had learned about it from faculty. Upon learning about the law some students were frustrated that lower-level classes would no longer be available to them, while others were appreciative that they did not have to take prerequisite DE before placing into transfer-level coursework. While many colleges have information about the law on their websites (a factor in our classification on the Scale of Implementation), it was clear in focus groups that students either were not accessing or retaining that information nor connecting it with their own experiences.

### *Perspectives on Placement Accuracy*

**Students' perceptions on the accuracy of placement recommendations were mixed overall.** Students across six sites reported that at least one of their course placements was too difficult, typically a math course. In two cases, support from faculty and/or enrollment in a support course were mitigating factors that helped students feel successful. Conversely, students across four sites reported that their course placements were too easy or that they were recommended to enroll in support options that they felt were unnecessary.

**Students from at least three sites described getting incorrect information or a lack of information when registering for courses, which led to inaccurate course placements.** At two sites, students were not fully aware of how the corequisite options worked, sometimes not finding out they were available until partway through the semester (even when a student felt they needed the support) and other times registering for them because they believed they were required (despite feeling they did *not* need support). A student from one site reported getting incorrect information from a counselor to take a course as a prerequisite that they ultimately did not need.

### *Student Agency to Select Courses*

**Students reported limited introductory course options, especially in English.** As noted previously, introductory English courses such as English 101 or English 1 are often the only class offered to incoming students, and students in more than half of the sample colleges identified this as a limitation. The only choice for most students taking introductory English is whether to register for a section with or a without support (i.e., corequisite or enhanced course section). For students in a learning community such as Puente, their English course options may be more limited; students involved in a learning community on one campus reported that their course placement is "mandatory because [we] all… have to be together." Although there are additional introductory courses for students in math, focus group participants reported feeling like there were limited options there as well, especially for SLAM students who are often recommended to take Statistics.

**Counselor recommendations were considered important in student decisions, even though in most cases students can register without meeting with a counselor.** While meeting with a counselor is no longer commonly required before a student registered for their first semester of classes, students in more than half of the sample colleges still reported relying on a counselor's support in selecting their classes. Indeed, students reported working with a counselor to determine which courses to take, often selecting from a set of options that the counselor would outline for them, based in part on their placement results and their pathway of study.

**Despite limited options and the role of counselors, students still commonly felt that they had "choice" or agency in the introductory courses they selected.** Across five of the sample colleges, student focus group participants reported that they had choices in the classes they registered for when they first started at college. Indeed, students reported "feeling like [they] had a choice [and] got to pick which classes [they] wanted to take" and counselors made clear that ultimately it was the student's decision which courses to take.

**Students' experience with counselors varied.** Some students reported appreciating the help they received from counselors, with one student stating that "without them, I wouldn't have known what to take." Others reported long wait times for scheduling appointments, limited in-person supports, and placement advice that felt disconnected from student needs.

### *Students' Experience of Curricular Reforms*

**Students' opinions of support classes varied based on how the extra time was utilized.** Students viewed support classes that used the time for review and to work on assignments as beneficial. They appreciated the slower pace of the support classes and the additional time for review. Yet students also reported that some support classes introduced new content and included "busy work," and these classes were viewed as unhelpful. Some students expressed reluctance to enroll in non-credit support classes.

### *Student Perspectives on Instructional Strategies and Pedagogical Approaches*

**Students expressed their appreciation for instructors who implemented supportive and student-centered classroom policies and instructional practices.** These policies and practices included more flexible deadlines and relaxed grading, providing constructive feedback and opportunities to respond to feedback, promoting student engagement through class discussions, providing class time to work on assignments, supporting collaborative learning experiences, utilizing a flipped classroom model, presenting material in different ways, and efforts to make the curriculum more relevant. Notably, faculty implemented many of these more relaxed policies during the pandemic when classes moved online. Following the return to in-person learning, faculty have continued applying the more relaxed policies.

**Students also appreciated their instructors' efforts to provide additional support outside of class.** Focus group participants reported that they valued instructors who held extended office hours, who were available to meet before and after classes, and who provided individual tutoring sessions.

## Conclusion and Next Steps

Our qualitative research in year 2 was focused on understanding how institutions implemented curricular reforms in response to AB 705, who was involved in implementation, how institutional resources were mobilized to support implementation, and how reforms were experienced by students. This foundational research was critical in understanding the institutional context of these reforms, and building rapport with institutional stakeholders in order to support our implementation and cost-effectiveness research activities for the rest of the study. In light of our quantitative analyses which highlight racial disparities in the student experience of these reforms, we are eager to update our planned year 4 data collection with an explicit racial equity lens. We expect to revise our data collection instruments and expand our data collection activities to glean deeper insights into how different student groups experience these reforms. This is particularly important as we work to increase our understanding of the potential and limitations of AB 705 as an equity-focused reform.

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