GETTING THERE II:

A Statewide Progress Report on Implementation of AB 705

Are California Community Colleges maximizing student completion of transfer-level math and English?

The Campaign for College Opportunity — ONE MISSION: Making College Dreams a Reality — 15 Years

CALIFORNIA ACCELERATION PROJECT

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EXECUTIVE SUMMARY

A new law, Assembly Bill 705 (Irwin), is driving dramatic changes to how the California Community Colleges place students into English and math courses. In fall 2019, AB 705 began requiring the colleges to use students' high school grades as the primary means of placement; restricting colleges from denying students access to transferable college-level courses; and giving students the right to begin in courses where they have the best chance of completing the English and math requirements for a bachelor's degree.

This report—a collaboration between the Campaign for College Opportunity and the California Acceleration Project—analyzes early AB 705 implementation efforts across California's community college system. It is a follow-up to the regional analysis of 47 colleges in the Central Valley, the Inland Empire, and greater Los Angeles that was published in September 2019.[1] Here, we examine fall course schedules and websites from 114 of the state's community colleges to identify bright spots and problems in implementation, with particular focus on the extent to which college course offerings are aligned with the AB 705 standard of "maximizing" student completion of transfer-level English and math courses.

We find that AB 705 has catalyzed substantial changes across community colleges.

Consistent with the initial regional analysis, we find that colleges have approximately doubled the proportion of transfer-level classes they offer. Across California, transfer-level classes **increased from 48 percent to 87 percent** of introductory English sections in the fall course schedules, and transfer-level classes **increased from 36 percent to 68 percent** of introductory math sections.

There also has been dramatic growth in the number of colleges offering corequisite remediation—that is, curricular models in which students receive additional support while enrolled in transferable college-level classes. Across the state, the number of colleges offering these models increased from 28 to 99 in English composition, from 13 to 91 in statistics, and from two to 84 in courses for students in math-intensive business, science, technology, engineering, and math programs (B-STEM).

Most colleges are allowing all students to enroll directly in transferable college-level courses, in compliance with the law, although we do find some exceptions.

Despite this progress, we identify several areas of weak implementation that will need further attention from the colleges, the California Community Colleges Chancellor's Office (Chancellor's Office), and possibly the State Legislature.

At many colleges, remedial courses continue to constitute a large proportion of course offerings, especially in math. Only 13 out of the 114 colleges meet the strong implementation benchmark for offering fewer than 10 percent pre-transfer courses in math. At 49 of the 114 colleges, below-transfer math sections continue to constitute over 30 percent of introductory sections in the course schedules.

Colleges are not providing enough sections of transfer-level statistics and quantitative reasoning, which is the math most students need for their degrees. **Instead, course schedules are weighted toward pre-transfer and transfer-level classes for students in math-intensive business and STEM programs. These sections represent 53 percent of the introductory math offerings across the state.**

In a close analysis of the websites of 11 weak implementer colleges—that is, colleges with a substantial share of remedial courses in their schedules—we find that none of the colleges provide data on how enrolling in a below-transfer class would reduce students' likelihood of completing their English and math requirements. Without this data, students are unable to make informed choices and to protect their right to begin in courses where they would have the best chance of completing transfer-level English and math.

With regard to AB 705, the California Community College system is *getting there.* Colleges have made substantial progress in addressing the long-standing problem of low and inequitable completion among students placed into remediation; however, student completion gains will be depressed if problems implementing AB 705 are not addressed. **We are particularly concerned about the equity implications of uneven implementation across the state, as students' zip codes continue to determine their access to colleges that have made powerful reforms.** This is especially problematic when implementation is weak in geographically remote areas, where students can't simply drive to another college down the road.

INTRODUCTION

For years, the California Community Colleges have required more than 75 percent of incoming students to take remedial math and/or English classes based on their performance on standardized tests.[2] Remedial classes at the colleges are intended to help students be more successful there, but they can take up to two years to complete, with students spending time and money repeating material covered in K-12, though not earning units toward a degree. **A decade of research has made clear that, regardless of their original intent, remedial classes make students less likely to complete college.**

Thanks to a new law, Assembly Bill 705 (Irwin), this system is undergoing a much-needed overhaul. AB 705 requires colleges to stop relying upon standardized tests and instead use students' high school grades as the primary means of student placement in English and math, as these grades have been shown to be far more reliable indicators of how students will perform in college.[3] The state law, which went into effect this fall, also restricts colleges from requiring students to enroll in remedial courses that will delay their progress to degree, and it gives students the right to enroll in courses where they have the best chance of completing the English and math requirements for a bachelor's degree. Though not the focus of this report, AB 705 also includes separate requirements for students in English as a Second Language (ESL) programs, with a fall 2020 deadline for implementation.

At colleges that have already made the changes required by AB 705, student completion of transfer-level English and math has increased substantially.[4] A recent study by the Public Policy Institute of California (PPIC) examined outcomes at colleges that broadened access to transfer-level courses ahead of the fall 2019 deadline. They concluded:

> **Our research shows that these colleges saw dramatic gains in student success, with large increases in the number of first-time students completing transfer-level courses in English and math. Gains were experienced by all students, including Latinos and African Americans. Colleges that offered students support courses at the same time they took transfer-level courses, a practice known as corequisite remediation, had especially strong results. This means that thousands of students who in the past would have started college in remedial courses are now bypassing those courses and succeeding in transfer-level courses.**[5]

Despite strong results at individual colleges, realizing the full potential of the law will require faithful implementation across the system's many community colleges.

Getting There examines the changes underway at the 114 community colleges in California. It is a follow-up to the previously published regional analysis of 47 colleges in the Central Valley, the Inland Empire, and Greater Los Angeles. This report analyzes fall 2019 course schedules from each of the state's community colleges to get an early window into how the colleges are responding to the legislation. It also includes findings from an examination of the websites of a subset of colleges to analyze the messages students are receiving about placement when a substantial number of remedial sections remain on the schedule. Data collection occurred between May and October 2019, commencing soon after the fall course schedules were made public.

Key questions:

- What changes have colleges made to their English and math course schedules since AB 705 was signed in fall 2017? Are colleges now offering primarily transferable, college-level courses, or are they continuing to offer traditional remedial classes?
- How are colleges communicating with students about placement policies and about their right to enroll in transfer-level courses?

While additional research will be needed to examine student enrollment patterns and outcomes from fall 2019, this report sheds light on implementation trends for use in ongoing advocacy and improvement efforts.

ENSURING THAT ALL STUDENTS HAVE THE BEST CHANCE AT COMPLETION

In the past, the California Community Colleges had wide discretion to determine which students could enroll directly in transferable college-level courses and which had to begin in remedial prerequisites. In principle, the colleges were required to consider multiple measures to assess student readiness; in practice, however, most relied almost exclusively on standardized placement tests, known to be poor predictors of academic performance, and the colleges could set whatever "readiness" bar they wanted and exclude students from transferable courses if they were below this line.

Under this system, more than 75 percent of students were denied access to transferable English and/or math classes, and there were widespread racial inequities. Black and Latinx students were much more likely to be excluded from transferable English and math and required to take multiple levels of remedial classes more frequently than White students. A 2010 study showed that more than half of the Black and Latinx students classified as "unprepared" in math began in the lowest levels of the sequence, taking three or more remedial classes before they could enroll in a transferable gateway course.[6] Fewer than six percent of students starting at these levels would go on to complete a transferable math course in three years.[7]

AB 705 sets new statewide parameters for placing students into English and math coursework. First, it gives students the right to enroll in transfer-level courses, unless colleges can demonstrate that their students are "highly unlikely" to succeed there, shifting the burden from students proving they are "ready" to colleges proving they are not.

The second parameter represents an even greater paradigm shift. According to the law, "A community college district or college shall maximize the probability that a student will enter and complete transfer-level coursework in English and mathematics within a one-year time frame." Initially, some interpreted this to mean that colleges could still require remedial courses, as long as students could complete transfer-level requirements within a year. But the Chancellor's Office clarified that **community colleges must examine either local or statewide data on students' high school grades and place students into courses that give them the best chance of completing a transfer-level course within a year.**[8]

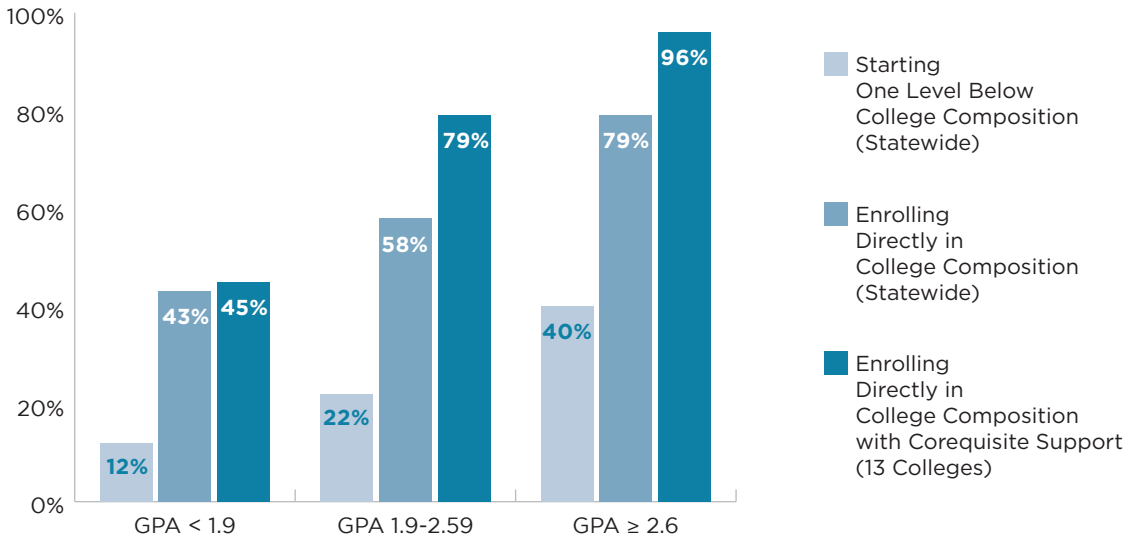
To provide guidance to the system's 115 community colleges (114 colleges and one online college), the Chancellor's Office enlisted researchers from the Multiple Measures Assessment Project (MMAP) to analyze a statewide dataset of high school and community college transcripts against the AB 705 standard of maximizing student completion. The analyses included controls for differences, such as higher placement test scores and high school grades, between students enrolling in transfer-level and pre-transfer courses. Students enrolling in separate curricula for English language learners were not part of the analysis.[9]

The statewide MMAP research established that all students are two to three times more likely to complete transfer-level English and math courses when they begin directly in a transferable, college-level course than in a stand-alone remedial course one level below transfer level. For example, students with a high school GPA between 1.9 and 2.59 have a 58 percent likelihood of success if they enroll directly in college composition, but only a 22 percent likelihood of completing that course in a year if they take a remedial class first. Maximizing student completion, therefore, requires these students to begin in transfer-level English composition.

These findings held true for all racial/ethnic groups, students with disabilities, low-income students, and non-native English speakers who attended high school in the United States. Even students with GPAs below 1.9—the lowest 10 percent of the statewide dataset—are still over three times more likely to complete college English in a year if they enroll in it directly than if they begin in a remedial course (43 percent vs. 12 percent). Further, when students enroll directly in a transfer-level course with additional concurrent support ("corequisite remediation"), they are even more likely to complete it than if they begin in a remedial class one level below the transferable course.

Figure 1. Completion of Transferable English Composition

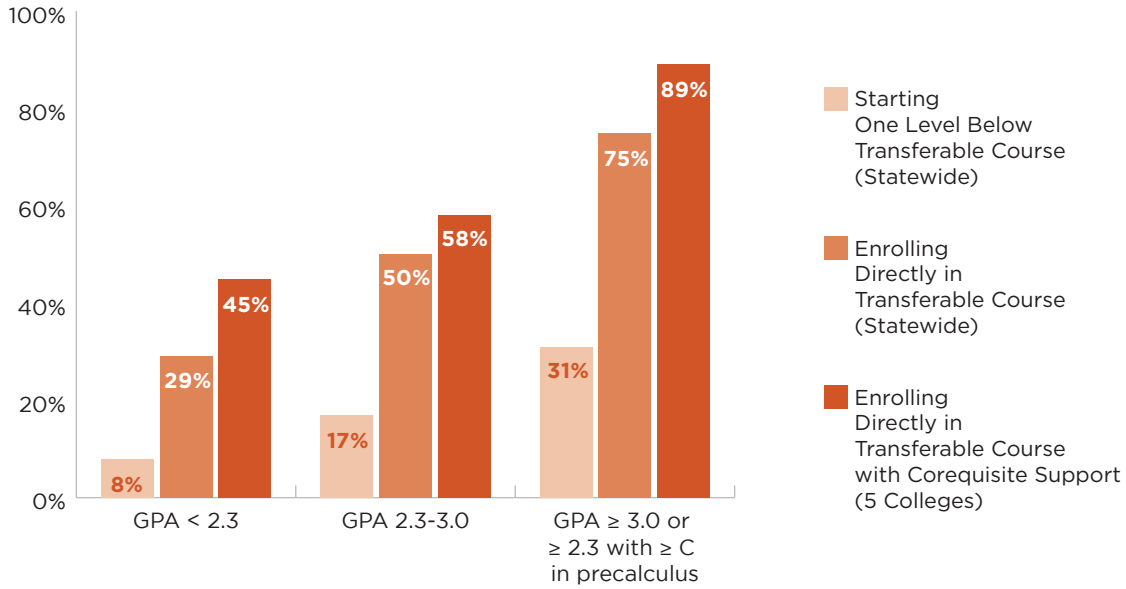
Students with a low GPA are three and a half times more likely to complete transfer-level English when they are placed directly into transfer-level coursework (12% vs. 43%).



Source: Analysis by the Multiple Measures Assessment Project, Statewide Data from 2007-2014, Corequisite Data from F2016-2018 (N=4332).

Figure 2. Completion of Transferable Statistics

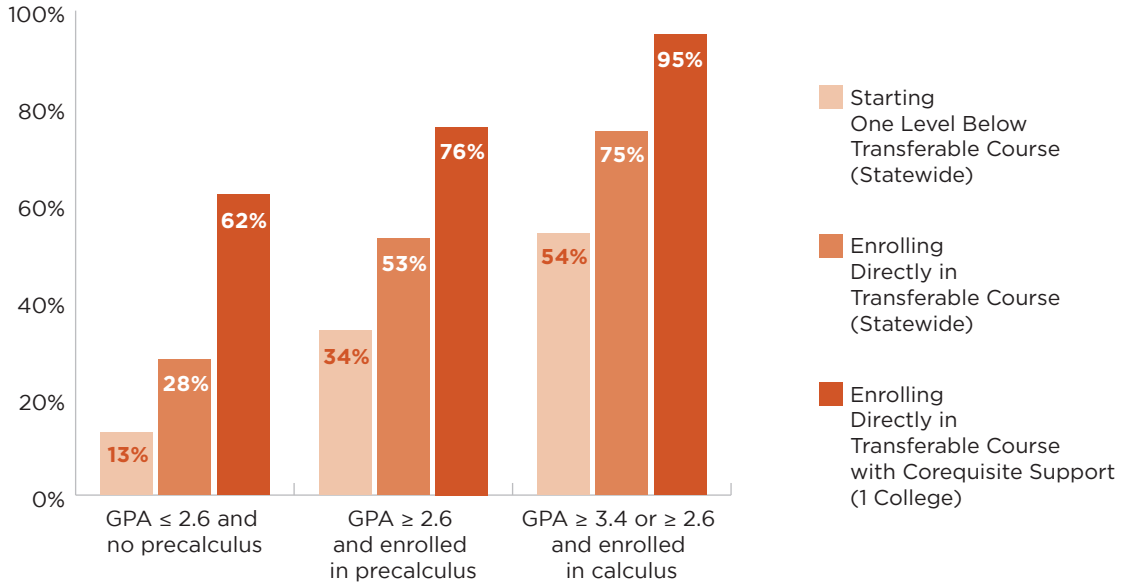
Students with low GPAs who are placed directly into transfer-level courses are three times more likely to complete transfer-level statistics than their peers who are placed one level below transfer level (29% vs. 8%), and students receiving corequisite support in a transfer-level course are five times more likely to complete transferable statistics than their peers placed one level below transfer level (45% vs. 8%).



Source: Analysis by the Multiple Measures Assessment Project, Statewide Data from 2007-2014, Corequisite Data from F2016-F2018 (N-1,888).

Figure 3. Completion of Transferable STEM Math

When enrolling directly in transfer-level courses with corequisite support, almost two-thirds (62%) of students with low GPAs and no prior precalculus courses complete transferable STEM math. When enrolling one level below transfer level, just one eighth (13%) complete transferable STEM math.



Source: Analysis by the Multiple Measures Assessment Project, Statewide Data from 2007-2014, Corequisite Data from Pre-Calc & Business Calc F2016-F2018 (N=241).

Based on this research, the Chancellor's Office developed a set of default rules for placing students into English and math courses. The rules state that all students should be placed directly into transfer-level English and math. Further, they encourage colleges to provide additional concurrent/corequisite support for students with lower high school grades (e.g., a GPA below 2.6 for English). If colleges do not want to use these statewide rules, they can examine local data and develop their own placement rules, and the MMAP team has provided resources to help colleges conduct local analyses.[10] However, the colleges must still honor the right of students to enroll in transfer-level courses, and their local placement rules must meet the AB 705 criterion for maximizing students' chances of completing transfer-level coursework.

DATA AND METHODS

For each of the 114 colleges in this study, we identified introductory-level courses ("transfer-level courses") that students take to complete their general education requirements in English composition and math/quantitative reasoning in order to transfer to a four-year institution. Completion of these early gatekeeper requirements in a student's first academic year in college has been associated with substantially higher rates of degree completion.[11] Most students have typically been required to take one or more remedial prerequisites before enrolling in these transfer-level courses.[12]

To understand colleges' responses to AB 705, we sought to understand which courses colleges were providing to incoming students and, specifically, the proportion of transferable and non-transferable sections being offered. For each college, we counted the number of sections of introductory transfer-level courses in the schedule, as well as the number of sections of non-transferable remedial courses. The counts were then used to calculate the percentage of introductory sections being offered at the transfer level. For example, a college with 80 sections of freshman composition and 20 sections of remedial reading and writing is described as having 80 percent transfer-level offerings in English.

In English, introductory transfer-level courses included the first semester of college composition, as well as ESL courses that meet the composition requirement. We included both traditional transfer-level sections and sections with additional concurrent support (corequisite/enhanced models). We did not include the second semester of freshman composition or English courses not related to the composition requirement (e.g., literature or creative writing). At the remedial level, we counted reading and writing courses below the level of freshman composition, including both credit and non-credit models offered within English, reading, and other related departments (e.g., basic skills departments). In the remedial counts, we did not include courses in ESL, corequisite courses attached to transfer-level sections, or support courses offered in tutoring and learning centers.

In math, introductory level courses included transferable courses for students in math-intensive business and STEM majors—college algebra, precalculus, trigonometry, applied calculus, and finite math. Again, we counted both standard sections and sections with additional concurrent support (corequisite/enhanced models). For students in non-math-intensive majors, transferable courses included math for elementary educators, liberal arts math, and statistics offered in the math department and in other disciplines (e.g., psychology, economics, business). Below-transfer courses include the traditional sequence of stand-alone remedial courses (from arithmetic to intermediate algebra), pre-statistics, the first semester of the Statway statistics program, and specialized math courses for students in career and technical programs. Both credit and noncredit classes were included. Most courses were offered in the math department, but we also counted sections in other related areas, such as separate basic skills departments. The remedial counts did not include corequisite courses attached to transfer-level sections or support courses offered in tutoring and learning centers. We also analyzed the proportion of introductory courses being offered in math-intensive business and STEM areas. For this, we counted the transferable courses listed above for students in math-intensive majors, along with courses in the traditional pre-transfer algebra sequence. Pre-transfer statistics and specialized career and technical education courses were not included in STEM counts.

We counted sections, not seats or course enrollments. This is worth noting for colleges offering a particular model of computerized instruction in pre-transfer-level math. In a few cases, we noted that colleges had scheduled multiple sections of different courses at the same time, in the same room, and with the same instructor. For example, 30 students in a single classroom might be working side by side on a self-paced review of different levels of math, with some of them enrolled in a section focused on arithmetic, others enrolled in pre-algebra, and others in elementary algebra. In our early analysis, we tried collapsing these overlapping sections in our counts, but this did not substantially change the findings. The colleges offering these models were in the weak implementer category, regardless of how the sections were treated, with fewer than 70 percent of introductory course offerings at the transfer level. Ultimately, for consistency in data collection, we treated these few colleges the same as all the others and counted each section offered.

Data collection occurred between May and October 2019. Findings, therefore, may not reflect some class cancellations and additions to the schedule. While these changes may have shifted course offerings at colleges analyzed earlier in the process, the published schedule provides a good window into how colleges were preparing for their first term of AB 705 implementation.

For a pre-AB 705 comparison, we collected the above data from the colleges' fall 2017 course schedules whenever they were available online or by request. Fall 2017 data were collected from 108 of the 114 colleges in math and 110 of the 114 colleges in English. Several of the colleges with missing data were small institutions, and we do not expect they would have substantially influenced the overall findings. Throughout the report, all 114 colleges were examined, unless an explicit comparison was being made between 2017 and 2019. In these cases, colleges were included only if both years' schedules were available, unless otherwise noted.

STRONG IMPLEMENTATION OF AB 705

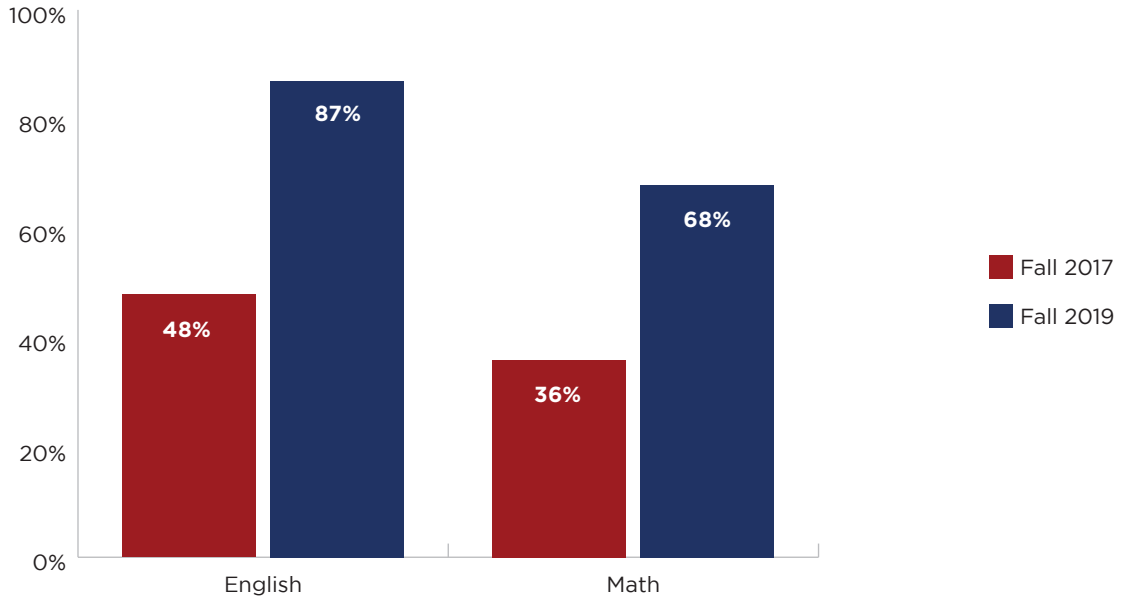
Since research has not been able to identify students for whom taking a below-transfer class produces higher completion, the surest way to maximize student completion is to eliminate these classes and offer 100 percent transfer-level courses, with corequisite remediation for students needing additional support. For this report, colleges are classified as strong implementers if they offer at least 90 percent of their introductory English and math offerings at the transfer level, with fewer than 10 percent at the pre-transfer level (not including ESL courses). This more conservative benchmark allows for atypical circumstances under which colleges might provide a below-transfer course within AB 705 criteria, such as for students in career and technical associate's degree programs with specialized math requirements that cannot be met with a transfer-level course. It also leaves room for limited offerings of intermediate algebra for students who did not complete Algebra 2 in high school, but who want to pursue a math-intensive major. This group is estimated to represent roughly five percent of all California community college students taking math.[13] Colleges were classified as mid-range implementers if 70 to 89 percent of their introductory offerings were at the transfer level and weak implementers if fewer than 70 percent of their introductory courses were transfer level.

OVERALL PROGRESS

AB 705 has produced substantial changes in course offerings across the California Community Colleges system. In 2017, the majority of introductory-level course sections in English and math were non-transferable, remedial courses. As Figure 4 shows, in 2019, the proportion of transfer-level course sections has nearly doubled in both disciplines. Course offerings in English are close to the 90 percent benchmark for strong implementation, with 87 percent of introductory English sections at the transfer level. Implementation in math is less strong, but it is still a substantial improvement over pre-AB 705 data, with transfer-level sections increasing from 36 to 68 percent of introductory-level offerings.

Figure 4. Percentage of Introductory Sections that are Transfer Level

Transfer-level sections have doubled as a percentage of introductory course offerings since the Fall of 2017.



Source: Individual College Course Schedules, Statewide Average.

STRONG IMPLEMENTERS IN ENGLISH AND MATH

Across the California Community Colleges, only 10 of the 114 colleges are strong implementers in both English and math, with 90 to 100 percent of introductory sections at the transfer level and fewer than 10 percent in below-transfer remedial courses.

Table 1. Strong Implementers in English and Math

Transfer-level sections account for at least 90 percent of the introductory course offerings at 10 of the California Community Colleges.

College	% Transfer-Level Math	% Transfer-Level English
Berkeley City College	92%	100%
Citrus College	90%	97%
Golden West College	91%	100%
Pasadena City College	100%	100%
Porterville College	100%	100%
Reedley College	98%	98%
Santa Barbara City College	91%	97%
College of the Sequoias	93%	100%
Victor Valley College	91%	95%
West Hills College Lemoore	96%	100%

Source: Individual College Course Schedules.

STRONG IMPLEMENTERS IN MATH

At an additional three colleges, 90 to 100 percent of introductory sections are at the transfer level in math, but not in English.

Table 2. Strong Implementers in Math Only

At three colleges, transfer-level sections account for at least 90 percent of introductory course offerings in math but not in English.

College	% Transfer-Level Math
Merritt College	96%
Orange Coast College	91%
Lassen Community College	91%

Source: Individual College Course Schedules.

STRONG IMPLEMENTERS IN ENGLISH

At an additional 44 colleges, 90 to 100 percent of introductory sections are at the transfer level in English, but not in math.

Table 3. Strong Implementers in English Only

At 44 colleges, transfer-level sections account for at least 90 percent of introductory course offerings in English but not in math.

College	% Transfer-Level English
College of the Canyons	100%
Clovis Community College	100%
College of San Mateo	100%
College of the Siskiyous	100%
Columbia College	100%
Contra Costa College	100%
Cuyamaca College	100%
Los Angeles Valley College	100%
Skyline College	100%
West Hills College Coalinga	100%
Butte College	99%
Irvine Valley College	99%
Sierra College	99%
Santa Ana College	98%
Solano Community College	98%
Bakersfield College	97%
Diablo Valley College	97%
Fullerton College	97%
Santiago Canyon College	97%
Barstow Community College	96%
Mt. San Jacinto College	96%
Yuba College	96%

College	% Transfer-Level English
Alan Hancock College	95%
Foothill College	95%
Merced College	95%
San Francisco City College	95%
San Joaquin Delta College	95%
Consumnes River College	94%
Santa Monica College	94%
American River College	93%
Cañada College	93%
Coastline Community College	93%
El Camino College	93%
Los Angeles Mission College	93%
Las Positas College	93%
Folsom Lake College	92%
Hartnell College	92%
MiraCosta College	92%
Riverside City College	92%
Saddleback College	92%
West Valley College	92%
San Diego Mesa College	91%
Moorpark College	90%
Ventura College	90%

Source: Individual College Course Schedules.

THE DANGER OF MAINTAINING REMEDIAL CLASSES AS AN OPTION

In her book, *The College Fear Factor*, Rebecca Cox notes that, in every community college she has studied across the country, student anxiety has been high, and math and English "evoked by far the biggest anxiety for the vast majority of students."[14]

The prevalence of student anxiety becomes a problem when colleges continue to offer remedial classes as an option, even as the law gives students the right to enroll in transfer-level courses. When students' anxiety is reinforced by faculty, counselors, guided placement instruments, and the course schedule itself, many students will choose to enroll in a remedial class out of fear of failure. In the process, they will unwittingly undermine their own long-term goals.

Colleges have already seen this happen as they broaden access to transfer-level courses. For example, when College of the Canyons first implemented multiple measures placement in 2016, they gave students the choice of enrolling in college statistics or remedial algebra. More than three-quarters of students chose remedial algebra, even if they didn't need it for their majors. The result? Just 13 percent of students who chose a remedial class completed transfer-level math in a year, compared to 66 percent of students who enrolled directly in the transfer-level course.[15]

Keeping remedial courses in the schedule is also likely to exacerbate racial and economic inequities. Historically, students of color have been disproportionately classified as "remedial," and continuing to offer these classes opens the door to implicit bias, as certain students are steered to take them, while other students are perceived as "college material." Another concern is that, because economically privileged students are more likely to be confident in their abilities (warranted or not), the deck will be unfairly stacked against those who self-select into remedial courses.[16] The PPIC recently cited Florida research showing that historically underrepresented groups disproportionately enroll in remedial courses if given the option. Applying this finding to California's implementation of AB 705, the researchers noted, "The prospect of some colleges eliminating developmental education while others offer it on an optional basis raises questions about equity."

Perhaps this is most worrisome at colleges still offering a large proportion of remedial classes, students are not able to protect their AB 705 right to begin in the classes where they have the best chance of completing transferable English and math requirements. As documented later in the report, none of the 11 weak-implementer colleges examined here shared information with students about how choosing a remedial class might negatively impact their likelihood of completion and, therefore, their likelihood of earning a degree and transferring. They failed to inform students, for example, that if their GPA is between 1.9 and 2.6, they have a 58 percent chance of succeeding in college English, if they enroll directly, but only a 22 percent chance of completing the course in a year if they take a remedial course.[17]

Finally, when colleges devote their limited public resources to remedial courses, there often aren't enough seats in transfer-level classes for the students legally entitled to enroll in them. The choice to continue providing substantial numbers of remedial sections will also mean a loss of funding under the new Student-Centered Funding Formula, a California Community Colleges resource allocation model that rewards colleges when students complete transfer-level courses in their first year. Using this metric, more remedial offerings mean lower student completion.

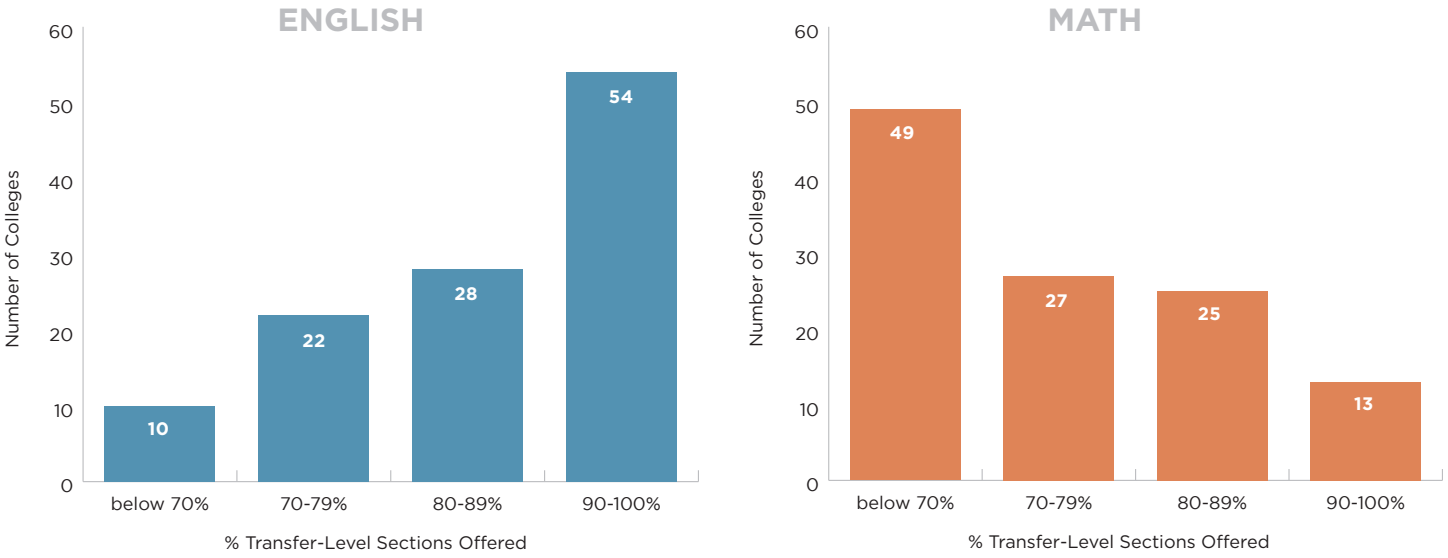
UNEVEN IMPLEMENTATION ACROSS THE STATE

Despite the research showing all students have higher completion of transfer-level English and math when they begin directly in these courses, many colleges continue to offer traditional remedial classes. This is especially true in math. We found only 13 colleges where transfer-level sections account for more than 90 percent of the introductory math course offerings. Nearly half of the state's colleges are weak implementers in math, with fewer than 70 percent of math sections at the transfer level (49 of 114 colleges).

A common interpretation of AB 705 is that, even if colleges can no longer require students to take remedial classes, they can continue to offer them. Compliance is defined as simply allowing students access to transfer-level courses. However, this approach ignores the core standard of AB 705—**that students should begin with the courses that give them the best chance of completing their English and math requirements.**

Figure 5. AB 705 by Strength of Implementation

Implementation is uneven for English and math.



Source: Individual College Course Schedules.

In English, remedial reading courses are a key driver of below-transfer course offerings, constituting the majority of remedial classes in some colleges' schedules.

In math, colleges are continuing to offer a substantial number of remedial algebra courses historically intended to prepare students for math-intensive majors. At most colleges, the number of sections offered far exceeds student need. Under the AB 705 standard of maximizing student completion, most students, including students seeking a terminal associate's degree (one not intended for transfer to a four-year institution), should proceed directly into a transferable statistics or liberal arts math course appropriate for their majors. Students interested in math-intensive STEM majors should enroll directly in a transfer-level math course if they completed Algebra 2 in high school. Only STEM-directed students who have not completed this prerequisite should be considered for intermediate algebra, one level below transferable math. As noted earlier, this group is estimated to represent only five percent of California community college math students. Finally, a small percentage of students should take below-transfer courses if their career and technical education programs have specialized requirements that can't be met with a transfer-level course.

COLLEGES SHOULD NOT OFFER SO MUCH PRE-TRANSFER MATH

With the prevalence of pre-transfer math sections in college schedules, many students are beginning in courses that will not maximize their chances of completing math requirements for degree and transfer. What are alternative ways to address concerns about math-preparedness while ensuring students begin in the class where they have the greatest likelihood of completion?

What We Hear	What We Know	What Campuses Can Do
Student demand: Colleges must continue to offer these classes because students want them, especially returning adults.	**Students are much more capable than recognized by traditional remediation practices. All students, even returning adults, have higher completion when they enroll directly in transfer-level math, especially when offered in corequisite models or with other concurrent support.**	Students often choose courses based on fear, lack of confidence, and concern about not belonging in college, rather than on an accurate assessment of their needs and options. Instead of playing into these fears, strong implementer colleges are steering uncertain students toward corequisite models and other concurrent support. If below-transfer sections remain on the schedule, some colleges have instituted processes to dissuade students from underplacing themselves. At College of the Redwoods, students attempting to enroll in pre-transfer math must sign an informed consent that communicates their belief in their capacity to do transfer-level work, explains their rights under the law, and discusses the impact on their likelihood of completion by choosing a below-transfer course. At Modesto Junior College, students are blocked from enrolling in a course below their placement and must go through an appeal process to clear the block.
Pathway to STEM: We need to preserve below-transfer courses for the students who are interested in math-intensive majors but have not completed Algebra 2 in high school, especially those who attended a school with inequitable access to higher-level math.	**Requiring prospective STEM students to enroll in a pre-transfer course reduces their likelihood of completion because many students are lost to attrition before reaching the transfer-level course.**	Statewide data show that only 5 percent of students taking math are STEM majors who have not successfully completed Algebra 2 or the equivalent. Consistent with this estimate, the 13 colleges listed earlier have trimmed pre-transfer math to fewer than 10 percent of introductory sections for fall 2019. As an alternative to pre-transfer courses, Citrus College and Los Medanos College have corequisite-supported precalculus and/or applied calculus courses that are open to all students, embedding just-in-time algebra review in the context of the transfer-level STEM class. At Citrus, far more students are enrolling in precalculus with corequisite support than anticipated, with long waitlists for the seven sections offered in fall 2019. College personnel anticipate an increase in STEM majors now that students are no longer lost to high rates of attrition in remedial prerequisite sequences.

What We Hear	What We Know	What Campuses Can Do
Students seeking a terminal associate's degree: Colleges need to maintain intermediate algebra for students in associate's degree programs, including career and technical programs and nursing.	**Associate's degree and transfer credit requirements can be met with transfer-level and specialized math courses.**	Many students seeking a terminal associate's degree can complete their requirements using transfer-level courses, which typically have higher success rates than intermediate algebra. For nursing majors, the vast majority of community college and California State University (CSU) nursing programs require transfer-level statistics as an entrance requirement. Some colleges also offer a low-unit contextualized pre-nursing math course to prepare students for the statewide nursing admissions exam. For career technical education (CTE) students, both Citrus and College of the Redwoods offer an open-access transfer-level course in CTE math that earns CSU Area B4 Quantitative Reasoning credit. As an alternative to intermediate algebra for CTE students, some colleges offer specialized, contextualized math courses that meet associate's degree or certificate requirements. These are often taught by CTE faculty.
Math prerequisites for science courses: Colleges need to maintain pre-transfer math for science courses that have a remedial algebra prerequisite.	**Prerequisite requirements can be met with transfer-level courses and corequisite support models.**	Many colleges use "or equivalent" placement or completion of higher-level math courses to clear access to science courses. College of the Redwoods offers a successful 0.5-unit concurrent algebra support course for nursing students taking chemistry.
Opposition from the math department: Colleges must continue to offer pre-transfer courses because math faculty often doubt that students can be successful in higher-level classes, even with concurrent support, and/or they want all students to have a strong grounding in algebra, whether or not it is relevant to their programs of study.	**Regardless of faculty perceptions, under AB 705, colleges must protect students' right to begin in courses where they have the greatest likelihood of completing transfer-level requirements.**	Bakersfield College and San Joaquin Delta College offer a large number of statistics sections in departments other than math (e.g., psychology, business). At schools like Cuyamaca College and in the Riverside Community College District, administrators have provided institutional and/or grant funding for professional development to support faculty so they can implement corequisite remediation, teach new courses, strengthen their pedagogy, replace a deficit view of students with a capacity orientation, and/or adopt a growth mindset toward learning and improvement.

THE CENTRAL VALLEY IS LEADING THE WAY

The Central Valley has some of the strongest AB 705 implementation in the state. **Across the region's 14 community colleges, 93 percent of introductory English sections and 79 percent of introductory math sections are at the transfer level.**

How did the Central Valley mobilize such strong implementation of AB 705?

In 2016, under the leadership of Merced College President Emeritus Benjamin Duran, the Central Valley Higher Education Consortium (CVHEC) began a concerted effort to remove the barriers to college completion in the region. Its ambition was reflected in the regional summit "All means All in the Central Valley—Clearing the Road to the Finish Line."

The region's college and university presidents and chancellors, who comprise the CVHEC board, came to understand that transforming placement and remediation was critical to their larger effort. They set goals for implementing corequisite models and enlisted partners like Complete College America, the Charles A. Dana Center, and the California Acceleration Project to lead summits and workshops for Central Valley faculty and administrators. By the time AB 705 came along, the region was primed for action.

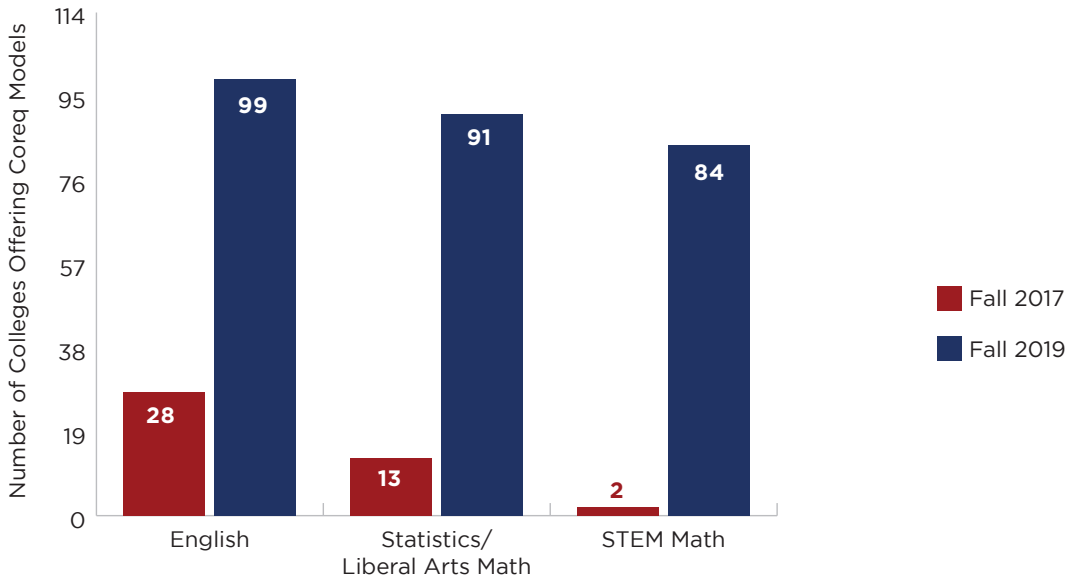
"More and more colleges in the Central Valley are realizing the importance of AB 705," says Duran. "They're recognizing that, because of these changes, children of doctors and children of farmworkers could all have the same shot at succeeding at a community college or CSU."

LARGE INCREASE IN THE USE OF COREQUISITE REMEDIATION

As an alternative to traditional remedial classes, AB 705 steers colleges to provide concurrent support while students are enrolled in transfer-level classes—an approach known nationally as corequisite remediation.[18] For example, instead of enrolling in remedial math, students entering community college with lower high school grades might take college statistics or precalculus with two additional units attached. This would provide these students with more class time to review the foundational math concepts and skills needed at the higher level.

Figure 6. Colleges Offering Corequisite Remediation at the Transfer Level

The number of colleges offering corequisite remediation has grown considerably since fall 2017, but nearly a quarter of colleges still do not offer corequisite models in STEM.



Source: Individual College Course Schedules. Fall 2019 data includes all 114 colleges. Fall 2017 data includes 108 colleges in math and 110 in English.

Corequisite remediation enables students to enroll in the classes that give them the best chance of completing transferable English and math, while also receiving support to be successful in them. At colleges not offering corequisite support, or offering only limited sections, traditional remedial classes remain the primary option for students who are nervous about meeting the demands of a transfer-level course. This option, however, carries the hidden consequence of reducing their likelihood of completion.

While the growth of corequisite models is encouraging, uneven implementation remains a concern, and some colleges offer only a few sections of these models. In English, 32 colleges have more sections of pre-transfer-level courses than transfer-level courses with corequisite support. In math, 79 colleges have more sections of pre-transfer-level courses than of transfer-level courses with corequisite support. This means that in math, at more than two out of every three colleges in the state, there are more sections of non-transferable remedial courses than there are of transfer-level courses with additional concurrent support.

COREQUISITE/CONCURRENT SUPPORT MODELS

While traditional remediation delays students' educational progress by requiring them to take classes that don't count toward a bachelor's degree, corequisite remediation enables students to enroll directly in a transferable, college-level gateway course and to receive additional support to be successful there. In corequisite models, the level of rigor is unchanged—students must meet the same learning outcomes as in a traditional college-level class, but they have more time and support in class to reach those outcomes.

The California Community Colleges have a lot of flexibility in how they design corequisite/concurrent support (e.g., lecture/lab units, credit/noncredit options, required/recommended support); however, AB 705 guides colleges to "minimize the impact on student financial aid and unit requirements for the degree by exploring embedded support and low or noncredit support options."

Several common models are described below.

Linked Corequisite Courses

Students enroll in two linked classes—a standard transfer-level course and a support course designed to help them with the transfer-level assignments. Both classes are typically taught by the same teacher. At some colleges, students are required to enroll in the extra support course based on their high school grades; at other colleges, students can choose whether to enroll in the standard or extra-support model. In California, one of the first colleges to implement this model for English was San Diego Mesa College, where the three-unit English composition course is linked to a two-unit support course.[19] Cuyamaca College was one of the first to implement this model in math, with two-unit corequisites linked to designated sections of statistics, business calculus, and precalculus.[20]

Enhanced Courses

In this model, students do not register for two linked courses; instead, they receive additional support by enrolling in a higher-unit version (providing additional instructional time) of the transfer-level course. At some colleges, students are required to enroll in an enhanced course based on their high school grades; at other colleges, students can choose whether to enroll in the standard or enhanced model. By streamlining registration, this enhanced model solves some of the technical challenges that colleges have faced with linked corequisite classes, but when units are added to a transferable course, colleges must rearticulate the course with four-year universities. Skyline College was one of the first community colleges in California to offer an enhanced version of college composition, with students taking either a standard three-unit class or a five-unit enhanced version. Reedley College offers an enhanced model of statistics.[21]

Accelerated Learning Program (ALP) Models

Also called a commingled model, this is a specific type of linked corequisite model in which the transfer-level course includes a mix of students—those who are taking the regular class without support and those who enroll in the linked support class. The corequisite support class is typically taught by the same instructor immediately before or after the main class, and class size is often small. Based on the ALP program at the Community College of Baltimore County, this model was first implemented in California by English department faculty at Sacramento City College and MiraCosta College.[22]

Other Concurrent Support

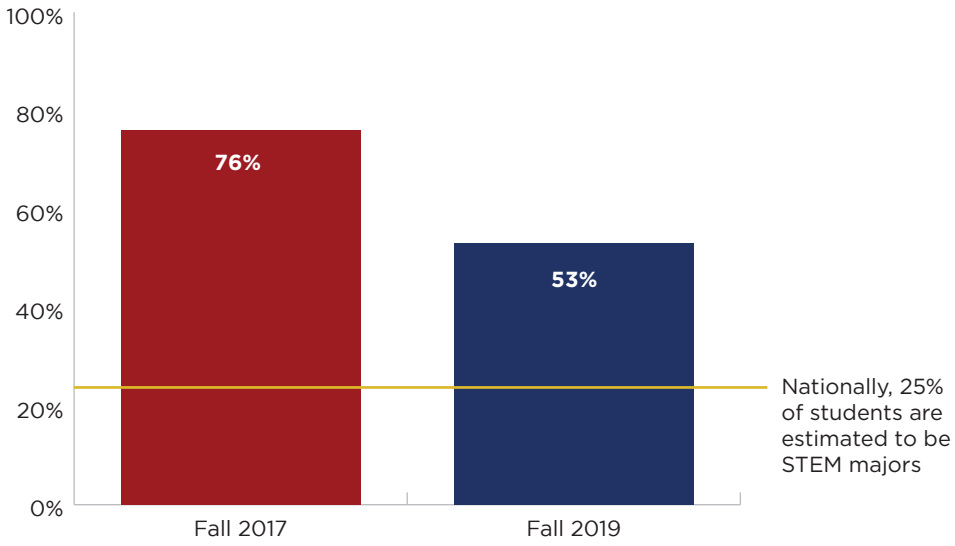
Colleges are also providing support to students through tutoring provided at learning centers, tutors embedded in the classroom, workshops, counseling, and other wraparound supports. These supports may be combined with the curricular models described above. Because they are generally not visible in the course schedule, these supports have not been included in the tallies of corequisite models.

MATH OFFERINGS NOT ALIGNED WITH STUDENTS' GOALS

Another area of concern in the fall course schedules is that colleges are not providing enough sections of transfer-level statistics and quantitative reasoning, the math most students need for their degrees. Instead, course offerings are weighted toward pre-transfer and transfer-level classes for students pursuing math-intensive business and STEM programs. While rates may vary at individual colleges, national research estimates that just 25 percent of students are pursuing STEM majors.[23] Across the state, STEM-related courses represent 53 percent of the fall 2019 introductory math offerings. On the positive side, between fall 2017 and fall 2019, colleges made improvements in aligning their course offerings with students' goals.

Figure 7. STEM Math Sections as a Percentage of Introductory Math Sections

Colleges continue to offer more STEM math sections than they need.



Source: Individual College Course Schedules.
Note: STEM courses include finite math and applied calculus, which are often taken by students in math-intensive business programs.

At several colleges, a promising strategy has emerged to address the misalignment between math offerings and students' educational goals: expanding the number of sections of statistics offered by other departments (e.g., business, economics, psychology). At some colleges, other departments offer two to three times the number of statistics sections as the math department. This strategy can substantially improve a college's proportion of transfer-level offerings. At one large college, the 30 sections of statistics offered outside the math department increased the proportion of transfer-level sections from 64 to 80 percent.

COLLEGE MESSAGING ABOUT AB 705

"WE BELIEVE IN OUR STUDENTS."

A good example of positive AB 705 messaging comes from College of the Sequoias in the Central Valley. The college's fall schedule includes 100 percent transfer-level courses in English and 93 percent in math, making it one of just 10 colleges in the state that is a strong implementer in both disciplines.

The college produced a powerful video to inform students and the larger community about AB 705.[24]

The one-minute video begins and ends with a student excitedly saying that now she and other students will be able to register directly into transfer-level English and math courses. It also features a series of college employees speaking in easy-to-understand language about the changes they are making—using high school grades for placement, eliminating remedial courses, and creating new corequisite classes to support students in challenging transfer-level classes. Rather than stoking students' fears about taking higher level classes, the video emphasizes a belief in students, and the overall impression is of faculty and advisers taking ownership of what AB 705 means for the college:

"It means we're going to have to change how we do things. How we advise students. How we offer courses. And, of course, how we support them. But it also means we believe in our students. Now, students will have greater and more equitable access to transfer-level courses."

In College of the Sequoias, we see an institution where both communications and course offerings are aligned with the AB 705 standard of maximizing student completion.

At colleges still offering a large number of remedial sections, we wanted to understand the messages students are receiving about their right under AB 705 and its follow-up legislation, Assembly Bill 1805 (Irwin), which requires colleges to inform students about their placement policies.

For a deeper dive into college messaging, we focused on three regions—the Central Valley, the Inland Empire, and Greater Los Angeles—that were selected because of their geographic, racial/ethnic, and economic diversity and their mix of institutional sizes (small, medium, and large). We focused on 11 colleges with the lowest proportions of transfer-level course sections in fall 2019, along with several other colleges for additional context. For each, we examined the college homepage; webpages related to assessment, placement, matriculation, and counseling; English and math department webpages; and college catalogs and course schedules. Our questions were:

- Are colleges publicly communicating their multiple measures policies?
- Are colleges informing students of their right to enroll in transfer-level courses?
- With so many sections of remedial courses in their schedules, how are colleges ensuring that students enroll in courses that meet the AB 705 standard of maximizing their likelihood of completing transferable English and math?

In some cases, it was difficult to observe how colleges were advising or placing students, because their websites provided limited information and/or because their placement processes occurred behind a password-protected wall on their sites and were therefore not visible to the public. Overall, however, some patterns emerged.

COLLEGE MULTIPLE MEASURES POLICIES

Are colleges publicly communicating their multiple measures policies, as required by AB 1805? For most of the 11 weak implementer colleges we examined, the answer is yes.

At some colleges, multiple measures policies are expressed in broad strokes and jargon that could be hard for students to follow, as in this quote from the website of a Central Valley college:

> **"The assessment test for credit courses will no longer be available after February 4, 2019 …**
> ***We recommend you speak with a counselor before registration. Counselors can provide a multiple measures review of your preparation for transfer-level courses."***

Other colleges are more specific about how high school grades are used to place students into or to recommend them for various courses and support. One college provides a table outlining its placement recommendations based on students' high school GPAs, math coursework, and intended majors. For example, high-GPA students pursuing liberal arts and other non-technical majors receive this guidance:

> **"My high school GPA was 3.0 or higher.**
> ***Recommendation:* You should take transfer-level statistics or Math for Liberal Arts. You don't need extra support to succeed"**

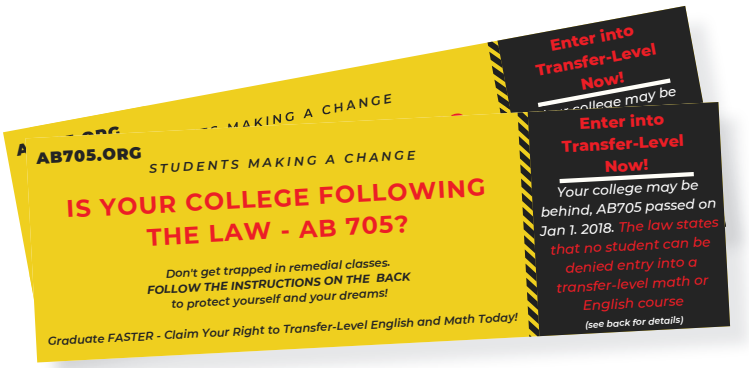
Mid-range GPA students pursuing STEM majors see this message:

> **"My high school GPA was 2.6 or higher OR I took precalculus in high school.**
> ***Recommendation:* You should take transfer-level algebra or higher—extra support is recommended to succeed."**

While most colleges meet at least a minimal bar for compliance, a few are communicating inaccurate information to students. **At three of the 11 weak implementer colleges, the college websites still tell students that they must take English and math assessment tests, even though no standardized placement tests in English and math are currently approved by the California Community Colleges Board of Governors (Board of Governors).**[25] Another college informed continuing students that they could only gain access to transfer-level courses if they brought in a transcript, which is a violation of the Title 5 regulation that colleges "must accept self-reported high school performance data" if transcripts are unavailable.[26]

STUDENTS' RIGHT TO ENROLL IN TRANSFER-LEVEL COURSES

AB 705 gives students the right to enroll directly in transfer-level courses, unless the college can demonstrate that they are highly unlikely to succeed there, and that they will have a higher completion rate if they begin in a remedial prerequisite course. Are students being informed of this right? Here, the answer is mixed.



Two of the 11 weak implementer colleges provide no information about the law or about students' right to enroll in transfer-level courses.

Three of the 11 appear to still be placing some students into non-transferable remedial courses in at least one discipline. None provided research showing that these placements meet the AB 705 standard of maximizing students' likelihood of completing transfer-level requirements, so students are unable to assess whether their right is being honored.

Six of the 11 weak implementer colleges do inform students of AB 705 and their right to enroll in transfer-level courses. The tone of these communications tends toward compliance—for example, cutting and pasting a description of AB 705 or including links to the statewide default placement rules on their websites—rather than positive expressions of belief in students.

In several cases where colleges inform students of their right to enroll in transfer-level courses, other parts of their websites undercut the message that students should enroll there. The website for one college in the Central Valley says this:

> **"You have been cleared for Transfer Level English and math courses. However, you have the right to start at a level you feel is best suited to your ability. Remember, studies show students who go into Transfer level course work have a better chance to graduate, but it is still your right to begin where you feel it is most appropriate. Below are directions on how to conduct a self-guided placement."**

Students are told they have a right to enroll in transfer-level courses, and the college even mentions the research about their greater odds of success there, but each of these statements is followed up with "however" or "but." This would seem to encourage students to question whether they really should enroll, then directs them to a guided placement process where they instead can choose a stand-alone remedial course. As noted earlier, this process is likely to exacerbate racial/ethnic and economic inequities.

Other colleges recommend students enroll in below-transfer courses, regardless of the impact this will have on the students' likelihood of completion. One college math website recommends intermediate algebra for STEM-bound students with GPAs below 2.6, even if they completed this course and took precalculus in high school. For STEM students who did not complete Algebra 2 in high school, this math department "strongly recommends" the students enroll in a high-unit course that covers not just Algebra 2, but also repeats Algebra 1. The college provides no information about how following these recommendations will impact students' likelihood of completing a transfer-level course.

Furthermore, although expressly prohibited by new Title 5 regulations,[27] some colleges embed "readiness tests" deep within their guided placement tools or include examples of potentially intimidating tasks students would be expected to do in a transfer-level course ("Would you describe yourself as a strong academic writer? Do you have experience writing essays that require you to analyze books and/or quote from multiple sources, and cite those sources?"). In these examples, the implication is that, if students can't already do these things, they may not belong in college composition, even though the class is supposed to teach students these skills.

NO WAY FOR STUDENTS TO PROTECT THEIR RIGHT UNDER AB 705

When remedial courses constitute fewer than 10 percent of the sections offered, it is less urgent that colleges fully and accurately communicate students' rights and options under AB 705. The course schedule is already designed to maximize completion, so few students will end up in a class that makes them less likely to reach their goals.

The problem arises when students must choose whether to enroll in a transfer-level or a stand-alone remedial course below transfer level. Are colleges informing students about their likelihood of completing transferable English and math for each option?

None of the colleges examined here provided enough information for students to make informed decisions. At one college, freshman composition is described as "advanced," while remedial courses are framed as a less threatening alternative— "slower paced," for "students who want more time and support" or who "want to establish a stronger foundation in academic reading and writing" before taking college composition for a letter grade. **The college informs students that, if they have a high school GPA below 1.9, their chance of succeeding in college English is only 43 percent, but it neglects to share that starting in a remedial course means their chances drop from 43 to 12 percent.**

If colleges do not share data that show outcomes for these various options, students have no way of protecting their right to begin in the courses they will have the best chance of completing—transfer-level courses. And with so many remedial sections still in college schedules, students will sign up for these classes without understanding the consequence: that they may learn or re-learn how to factor a polynomial but become much less likely to earn a bachelor's degree.

RECOMMENDATIONS FOR ACTION

As was the case in our regional analysis of AB 705 implementation, many colleges across California are living in the gray area of this legislation, especially in math. They continue to offer a large proportion of remedial classes, even if they can't require students to enroll.

The volume of remedial course sections that remain in many college schedules indicates a continued belief among community college faculty and administrators that students need and benefit from these classes. This belief persists, despite years of local and statewide data showing that the likelihood of completion declines with every remedial course that lengthens a student's path through college. This misconception continues, even when local and statewide data fail to identify a group of students for whom starting in a stand-alone remedial course produces higher completion rates. The persistence of this belief is perhaps the main reason that the changes mandated by AB 705 had to be legislated, rather than voluntarily adopted.

The continued presence of remedial course offerings poses the greatest threat to implementation of the law, will undermine the completion gains students see from AB 705, and will likely continue to feed racial and economic inequities. It will also cause colleges to lose funding under California's new funding formula. This issue, therefore, is central to our recommendations for action.

HOW CAMPUSES CAN IMPROVE IMPLEMENTATION

In the near term, colleges should make changes to address the implementation problems identified in this study by:

- shifting course schedules to offer primarily transfer-level courses in English and math, with few, if any, stand-alone remedial courses;
- aligning course offerings with the math students' need for their programs of study (e.g., STEM vs. statistics/quantitative reasoning);
- developing evidence-based corequisite support for transfer-level English, statistics, liberal arts math, and STEM math classes, if these are not already in place;
- revising college websites to ensure that students are receiving accurate, consistent, and encouraging messages about their right to enroll in transfer-level courses and about the support available to help them be successful;
- providing students with clear information about how enrolling in a transfer-level or a remedial course will affect their likelihood of completing transfer-level requirements, so that they are fully informed about a remedial course's impact on their educational progress;
- annually monitoring first-course enrollment in English and math, disaggregated by race/ethnicity; and
- taking proactive steps to prevent students from underplacing themselves in stand-alone remedial classes and guarding against inequities in who self-selects these courses, such as:
    - checking placement information for students who enrolled in remedial math each term and moving them to the transfer-level classes appropriate to their programs of study;
    - adding a "forced acknowledgement pop-up" during registration, informing students about their right to take a transferable class and about research showing that all students do better starting there;
    - instituting enrollment blocks that prevent students from registering for below-transfer classes unless they go through a formal challenge process; and
    - requiring students registering for remedial classes to sign a placement acknowledgement form that contains information on the lower completion rates for these courses.

HOW THE STATE CAN SUPPORT IMPLEMENTATION

Faculty Development and State Funding

The changes required by AB 705 represent a sea change for community college English and math faculty, as they require not only changes to placement policies, but changes to instruction. Faculty need support to develop new curriculum for corequisite support models, to effectively teach within these models, and to replace a deficit-based view of students with one that recognizes their capacity. Many faculty need professional development to learn to maintain the level of rigor in transfer-level courses, while also providing just-in-time remediation to help students succeed. And in math, many faculty members need support to begin teaching statistics and liberal arts math, since their graduate training often does not include these subjects.

Some colleges have supported the redesign of remedial education by prioritizing developing faculty capacity, providing release time to faculty that leads to the development of new curricula, and funding professional development to help faculty teach within new structures.[28] But a key source of funding for this work—the state's Basic Skills and Student Outcomes Transformation Program—ended, just as colleges were gearing up for AB 705, and no additional state funding has been earmarked to help colleges make the dramatic shifts the law requires.

In the near term, colleges should prioritize AB 705 implementation in their use of state Student Equity and Achievement Program funding. Further, the Legislature should consider an additional round of dedicated funding tied to AB 705 implementation, especially to support the replacement of stand-alone remedial courses with corequisite/concurrent support models and the aligning of math course offerings with students' programs of study.

Systemwide Communications Plan

Ideally, colleges should develop course schedules designed to maximize student success and to protect students' right to enroll in transfer-level courses. However, until that is the case for most colleges, communication to students about their right is necessary. And while we see many colleges attempting to communicate information about AB 705 to students, those messages can be unclear, inconsistent, or absent across institutions.

The Chancellor's Office should develop a strategic statewide communications plan and guidelines for use by the community colleges that promote clear and consistent messages about AB 705. The plan should address:

- sample communications templates that address students' right to begin in the courses where they have the best chance of completion and that can be used to place this information on college websites and in course catalogs and registration systems;
- statewide data showing the different completion rates for students starting in transfer-level courses versus stand-alone remedial courses, to enable students to make fully informed choices; and
- guidelines and timelines for how colleges are expected to use these communications tools.

MONITORING IMPLEMENTATION

A student's ability to complete the English and math requirements needed for a certificate or degree or to transfer is foundational to realizing each of the goals outlined in the California Community Colleges' Vision for Success. The Board of Governors and the Chancellor's Office must, therefore, closely monitor colleges' implementation of AB 705.

Refining Data Collection and Reporting

Reporting and data collection are critical to monitoring faithful AB 705 implementation. However, current reporting requirements need to more explicitly measure the number of students *starting* in transfer-level courses versus those *having access* to transfer-level courses. First-course enrollment is the truest measure of a college's placement results—combining what the college has chosen to offer (remedial vs. transferable courses) with the different elements of its placement practices (from formal policies to guidance tools to advice from counselors and other faculty). This is the primary driver of student completion in transferable English and math.

In particular, the Chancellor's Office needs to make this metric more explicit in the annual reporting required of colleges under AB 1805 and in the data that colleges are required to publicly post on their websites. This data must also be disaggregated by race/ethnicity.

Encouraging Progress

Using this revised first-course enrollment metric, the Board of Governors should identify colleges that are failing to enroll the vast majority of their students in transfer-level English and math courses. Those colleges should be required to submit a detailed plan for meeting that metric within the next calendar year. The Board of Governors and the Chancellor's Office should also celebrate and highlight best practices from the colleges that are leading the way in strong implementation of AB 705.

AREAS FOR FURTHER ATTENTION

This report identifies several opportunities for strengthening and refining AB 705 implementation in the near term. AB 705 has the potential for being a transformative policy, but only if we continue to commit the research, reform, and investments necessary to maximize outcomes for all students.

The following areas are not addressed in this report, but warrant further exploration:

- **The quality of corequisite models:** While many colleges are introducing corequisite support as an alternative to traditional remediation, these models vary among the state's community colleges. Research should be conducted to assess the effectiveness of different models, especially those with high unit requirements.
- **State investments in stand-alone remedial courses:** At the time AB 705 passed, many believed that some students have higher completion of transferable requirements if they began in a remedial course. Since then, further research has established that this is not the case. The state should explore reducing or eliminating funding of stand-alone remedial courses that do not maximize student success.
- **Role of implicit bias:** Improving student outcomes in transfer-level English and math must include a thoughtful examination of belief structures and how they are manifested in the classroom and in advising. Resources should be dedicated to professional learning aimed at advancing racial equity in gateway courses by examining the role of implicit bias.

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The Campaign for College Opportunity staff contributing to the work were Sara Arce, Vikash Reddy, and Jessie Ryan.

PHOTO ATTRIBUTIONS

Page 4 LinkedIn Sales Navigator https://unsplash.com/photos/El50ZDA-l8Y

Page 6 WOCinTech Chat https://wocintechchat.com

Page 12 LinkedIn Sales Navigator https://unsplash.com/photos/jJFrkJP_-RA

Page 20 screenshot of video produced by College of the Sequoias to educate students and the college community about changes to placement under AB 705

Page 22 Sean Kong https://unsplash.com/photos/r2WhdAwJPxM

Page 25 Jordan Encarnacao https://unsplash.com/photos/c0rplvWqyZk

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