

A Civil Rights Agenda for California's Next Quarter Century



Developmental Education Reform  
as a Civil Rights Agenda:  
*Recent History & Future Directions for California*

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The Civil Rights Project

*Proyecto Derechos Civiles*

**25 YEAR**  
ANNIVERSARY

This paper is dedicated to Tatiana Melguizo, a skilled and thoughtful scholar who brought compassion, methodological rigor, and an astute, critical perspective to her research on improving postsecondary outcomes. Tatiana was a wonderful collaborator, a caring mentor, and a true champion for college students from marginalized communities. Her sudden passing in January 2024 leaves a hole in our hearts and in the higher education research community. In her memory, we will continue the work to create a more just education system and we will endeavor to do so with her kindness, humor, and strength.

*-Susan Bickerstaff, report coauthor*

It is with heavy hearts that we release this report authored by Tatiana Melguizo and her colleague, Susan Bickerstaff. It was one of the last projects she undertook before her untimely passing, which was a great loss for the field and for those who knew her. As with all of Professor Melguizo's body of work, this paper endeavors to move forward her vision of greater equity for those students so often left behind. It was our honor to work with Tatiana, and to count her not only as a valued colleague but as a friend. Her work will continue to live on through the many students and colleagues she influenced so deeply.

*-Patricia Gándara and Gary Orfield  
On behalf of the Civil Rights Project/Proyecto Derechos Civiles*

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## About the Series

### *A Civil Rights Agenda for the Next Quarter Century*

The Civil Rights Project was founded in 1996 at Harvard University, during a period of increasingly conservative courts and political movements that were limiting, and sometimes reversing, major civil rights reforms. In 2007 the Project moved to UCLA. Its goal was – and still is – to bring together researchers, lawyers, civil rights advocates and governmental and educational leaders to create a new generation of civil rights research and communicate what is learned to those who could use it to address the problems of inequality and discrimination. Created a generation after the civil rights revolution of the 1960s, CRP’s vision was to produce new understandings of challenges and research-based evidence on solutions. The Project has always maintained a strong, central focus on equal education and racial change.

We are celebrating our first quarter century by taking a serious look forward – not at the history of the issues, not at the debates over older policies, not at celebrating prior victories but at the needs of the next quarter century. Since the work of civil rights advocates and leaders of color in recent decades has often been about defending threatened, existing rights, we need innovative thinking to address the challenges facing our rapidly changing society. Political leaders often see policy in short two- and four-year election cycles but we decided to look at the upcoming generation. Because researchers are uniquely qualified to think systematically, this series is an attempt to harness the skills of several disciplines, to think deeply about how our society has changed since the civil rights revolution and what the implications are for the future of racial justice.

This effort includes two very large sets of newly commissioned work. This paper is the third in the series on the potential for social change and equity policies in California, a vast state whose astonishing diversity foretells the future of the U.S. and whose profound inequality warns that there is much work to be done. The second set of studies is national in scope. All these studies will initially

be issued as working papers. They will be brought together in statewide conferences in California and in the U.S. Capitol and, eventually, as two major books, which we hope will help light the way in the coming decades. At each of the major events, scholars will exchange ideas and address questions from each other, from leaders and from the public.

The Civil Rights Project, like the country, is in a period of transition, identifying leadership for its next chapter. We are fortunate to have collaborated with a remarkable network of important scholars across the U.S., who contributed to our work in the last quarter century and continue to do so in this new work. We are also inspired by the nation's many young people who understand that our future depends on overcoming division. They are committed to constructing new paths to racial justice. We hope these studies open avenues for this critical work, stimulate future scholars and lawyers, and inform policymaking in a society with the unlimited potential of diversity, if it can only figure out how to achieve genuine equality.



Gary Orfield



Patricia Gándara

## Acknowledgements

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## Foreword

This paper by Susan Bickerstaff and Tatiana Melguizo focuses on recent policy and practice in California regarding developmental education in the state's community colleges. However, California has not been alone in its struggles over this issue. The problems with developmental education are both long-standing and national in scope. Many states have been struggling to find ways to reduce or eliminate developmental education as we now know it, with varying degrees of success. This has been a particularly active time for the community colleges in California and we hope that the account presented here is useful to community college educators across the nation.

The California Master Plan for Higher Education made a huge bet on community colleges. More than any other state, California relies on its two-year campuses to transfer students to four-year institutions for bachelor degree completion. Today, enrolling 1.8 million students in its 116 community colleges, the system has not met those expectations. In fact, projections are that given the shortfall in college graduates, California soon cannot meet its needs for college-educated workers. A major reason for this is that too many students—especially students of color, low-income students and English learners—arrive at college under-prepared for the courses they need to take. As a result, they are assigned to prerequisite “developmental education” classes that often do not strengthen their understanding of the material or yield the college credits needed to progress toward their degrees. Yet, as Bickerstaff and Melguizo, the authors of this timely report note, the state has not only identified this as a significant problem but has made a major policy shift away from requiring these courses, based on solid evidence that they often unnecessarily delay and detour students away from college completion. In fact, legislation (AB705) has been passed that all but bars the campuses from assigning most students to these courses. But problems remain. Even with major changes in policy, too many Black students, and to a somewhat lesser extent Latino students,

continue to find themselves in these classes and/or failing credit-bearing courses. In fact, the category of students with the worst outcomes are English learners.

When the Civil Rights Project analyzed data in 2013 on California community college campuses that were outperforming others in transferring underrepresented students to 4-year colleges and universities, we found that higher education outcomes for students could be reliably predicted simply by knowing the high schools that they had attended. That is, pre-college preparation differed greatly, setting students up for success and challenges before even arriving at the community college. (It is worth mentioning that the community colleges are expected to turn around the under-preparation of students with a per-student budget that is a fraction of that received by the high schools.) Some colleges addressed these challenges better than others, but pre-college preparation remained a very significant factor in students' higher education outcomes. Hence it was not surprising that many colleges turned to developmental education, or remedial courses for underprepared students. As Bickerstaff and Melguizo aver, the logic of remediating students' weak skills seems to make sense: teach what has not been taught or learned before moving on to new material. Nonetheless, the field has been acutely aware of the problems engendered by postponing access to credit-bearing courses and focusing on discrete skills remediation that does not support a broader understanding of the material. A number of efforts have been undertaken over the last couple decades and Bickerstaff and Melguizo do an excellent job of outlining the most effective, alternative strategies that successful campuses have adopted. But it can be hard to change people's minds and easy to slide back to ineffective practices. Additionally, the authors report that there is some evidence that educators may make inaccurate assumptions about students' abilities, denying them access to courses they could successfully complete, especially in the case of students of color and English learners.



This report outlines the significant challenges to the community college system (though not exclusive to two-year colleges) in attempting to move away from a remedial model, with embedded practices by some educators that are difficult to change, even when policies change. Sometimes this is due to a fundamental belief in remediation as the solution to weak achievement, even in the face of evidence to the contrary. Sometimes it is an attempt to ensure job security for educators who have taught these courses for decades. The authors propose some very useful suggestions for helping faculty to adjust to new policies, such as professional development focused on more powerful pedagogy that is conducted by trusted faculty organizations. They also note that providing more opportunities for students to take community college courses while in high school can better prepare lower achieving students, who are routinely denied these opportunities to prepare for the rigors of college courses. The authors additionally suggest providing some classes in the home language of the students. Hopefully, these recommended practices will be more widely adopted. Nonetheless, there is a certain irony in the fact that community colleges were conceived of, in part, as an equalizer, where students could strengthen their skills as they prepared for four-year institutions. But for many students, they have reinforced achievement and opportunity gaps between student groups, with students of color and English learners once again receiving inadequate support and being relegated to the weakest courses. This remains a challenge to civil rights and points to an urgent need to tackle head-on the problems of racial and language bias.

*-Patricia Gándara*

# Table of Contents

About the Series.....	3
Acknowledgements .....	5
Foreword .....	6
Table of Contents .....	9
Executive Summary.....	10
Introduction.....	12
Identifying Developmental Education Problems and Solutions .....	15
Placement.....	16
Attrition .....	17
Instruction.....	18
Can Developmental Education Reform Improve Racial Equity in Higher Education? <sup>2</sup> .....	20
Developmental Education Reform in California: A Case Study .....	23
Early AB705 Implementation and Outcomes .....	26
AB1705 and Looking Ahead.....	29
Recommendations.....	30
Conclusion.....	36
References.....	38

## Executive Summary

Efforts to strengthen the pipeline to college degree completion have focused on improving college access and providing academic, social, and financial supports to students' post-enrollment. In this paper, we explore one facet of postsecondary education that has served as a barrier to both college access and success. Developmental education—intended as a remedy to unequal pre-college academic experiences—has proven instead to exacerbate racial inequities in academic progress in higher education and has effectively decreased college access for low-income students and students of color.

Findings from rigorous studies on developmental education reform conducted over the past decade show that broadening access to college-level courses, providing academic and non-academic supports, and improving curriculum and instruction can put students on the path to postsecondary success, even for those students who may have academic weaknesses stemming from their K-12 experiences. Because Black and Hispanic students have historically been referred to developmental education at higher rates than their peers and thus have disproportionately suffered the negative effects of developmental education, efforts to dismantle the traditional system of developmental education will benefit racially minoritized students.

After more than a decade of trying to tackle the developmental education problem indirectly through basic skills-related initiatives, task forces, and success initiatives, the California state legislature passed Assembly Bill 705 (AB705) in 2017, arguably one of the most ambitious higher education reforms in the California Community Colleges to date. AB705 directed colleges to replace standardized placement tests with multiple measures of high school performance to determine college readiness. In lieu of prerequisite pre-transfer courses, colleges were expected to develop the corequisite courses or academic supports necessary to maximize the probability that the students will pass transfer-level English and math within one year.

In this paper, we describe the research that prompted developmental education reform approaches nationally and in California, describe the efforts in California that led to the passing of AB705, and summarize research on its implementation and outcomes. We explore the implications of this research for improving postsecondary access and success for Black and Hispanic students and English learners.

Several studies in California show that access to, and success in, transfer-level math and English courses have increased substantially since implementation of AB705 in 2019. Yet despite these dramatic improvements, equity gaps remain persistent. Uneven implementation may be one driver of these outcomes. As of 2022, a sizable portion of California’s community colleges continued to offer standalone pre-transfer level developmental courses. Studies of the reform’s implementation point to the importance of addressing stakeholder assumptions about students’ capabilities. Without an explicitly “race conscious” approach to implementation planning, it is unlikely that racial inequities can be eradicated through state legislative action.

Building on analysis of the research, the paper concludes with five key practice and policy recommendations for California community college leaders as they move toward realizing a civil rights agenda for college access and success in the next 25 years: (1) Address faculty and practitioners’ beliefs; (2) Move from structural to instructional reform; (3) Improve data accessibility, reporting, and accountability; (4) Expand equitable college access opportunities for students in high school; and (5) Address barriers facing English learners.

# Developmental Education Reform as a Civil Rights Agenda: Recent History and Future Directions for California

Susan Bickerstaff and Tatiana Melguizo<sup>1</sup>

## Introduction

Increasing postsecondary attainment among Black, Hispanic,<sup>2</sup> and Native Americans is central to the ongoing struggle to redress centuries of systemic racial oppression in the United States. Despite decades of interventions and reform efforts in both K-12 and postsecondary sectors, racial gaps in degree completion persist. For example, in 2021, 42% of Whites over the age of 25 held a bachelor's degree compared to 28% of Black Americans and 20% of Hispanics (U.S. Census, 2022). These gaps mirror differences in outcomes in high school completion but are considerably larger; for example, White Americans have a four-year high school graduation rate of 89% as compared to 79% and 81% for Black and Hispanic Americans, respectively (National Center for Education Statistics, 2020). Efforts to strengthen the pipeline from higher education to college degree completion have focused on improving college access and providing academic, social, and financial supports to students post-enrollment.

Community colleges, which are low-cost and open-access, play an important role in mitigating the racialized effects of unequal high school preparation and family income disparity on postsecondary attainment. Yet community colleges have low and unequal completion rates; thus, their potential for upending patterns of race-based educational disparities has not been fully realized.

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<sup>1</sup> Susan Bickerstaff is senior research associate of the Community College Research Center, Teachers College, Columbia University; Tatiana Melguizo, of blessed memory, was professor of education at the Rossier School of Education, University of Southern California.

<sup>2</sup> Throughout the paper, we use the term Hispanic, which as of 2019 was found to be the most commonly used identifier among individuals tracing their roots to Latin American and Spain.  
<https://www.pewresearch.org/hispanic/2020/08/11/about-one-in-four-u-s-hispanics-have-heard-of-latinx-but-just-3-use-it/>

In this paper, we explore one nearly ubiquitous dimension of the community college experience that served as a barrier to college success and has also been a focus of dramatic evidence-based policy reform in recent years. Developmental education—intended as a remedy to unequal pre-college academic experiences—has proven instead to exacerbate racial inequities in academic attainment and has effectively decreased college access for low-income students and students of color. In the past two decades, actions by advocates, researchers, educators, and policymakers have resulted in dramatic changes to developmental education practice and policy. California has been a leader in those efforts. Yet in California and nationally, reform impacts have been uneven, suggesting new opportunities and obligations in the ongoing struggle to improve equitable postsecondary outcomes by race and income.

Developmental education (sometimes referred to as remedial education) has been a mainstay of community colleges' institutional mission for decades. Developmental courses are prerequisite requirements in math, reading, and writing that are intended to prepare students for college-level math and English. Nationally, 60% of students who began in community colleges in 2013 enrolled in at least one developmental course, with students taking an average of three prerequisite courses across subject areas.<sup>3</sup>

Traditionally students were referred to these courses based on their performance on a short, standardized skills assessment or another exam like the SAT or ACT. It was not uncommon for students to be placed into multicourse prerequisite sequences that might take several semesters to complete. This delayed students' entry into college-level English and math courses, which are typically critical degree-program requirements. Although developmental courses usually do not apply

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<sup>3</sup> Although our focus in this paper is on developmental education research and reform in two-year colleges, developmental education has been prevalent in public four-year colleges as well. About one-third of students who began in a public four-year institution in 2013 enrolled in an average of two developmental courses.

to graduation or transfer, students pay for them as they would any other course. The costs of the widespread use of prerequisite developmental education courses were estimated to be about \$7 billion annually (Scott-Clayton et al., 2014).

While students who complete developmental courses may learn from these educational experiences, research conducted over the past two decades established that this system of placement and multicourse prerequisite requirements hinders students' academic progress and disproportionately disadvantages minoritized students (Boatman & Long, 2018; NASEAM, 2019). Causal research showed that academic outcomes for students enrolled in developmental education were no better and sometimes worse than those of similar students who enroll directly in college-level courses (Attewell et al., 2006; Martorell & McFarlin, 2011; Dadgar, 2012; Valentine et al., 2017).

Students of color and students from low-income backgrounds have disproportionately borne the costs and burdens of developmental education. Among students who first enrolled in community colleges in 2003, nearly 80% of Black students and 75% of Hispanic students took developmental courses as compared with two-thirds of White students. While a majority of students across all income groups enrolled in developmental education courses, there was a 17-percentage point difference between the highest and lowest income quartiles in the proportion of students enrolled in developmental education (Chen, 2016). Among Black students who enrolled in developmental education, only 20% earned a credential within six years. Among Hispanic students referred to developmental education, the credential attainment rates were 25% (Ganga et al., 2018).

Reforms to developmental education are now widespread. As of 2021, over half of U.S. states had policy language either mandating or recommending reforms to developmental education (Whinnery & Odekar, 2021). After more than a decade of trying to tackle the developmental education problem indirectly through basic skills-related initiatives, task forces, and success initiatives, the California state legislature passed Assembly Bill 705 (AB705) in 2017, arguably one of

the most ambitious higher education reforms in the California Community Colleges to date. In this paper, we describe the research that prompted developmental education reform approaches nationally and in California, describe the efforts in California that led to the passing of AB705, and summarize research on its implementation and outcomes. We explore the implications of this research for improving postsecondary success for Black and Hispanic students. The paper concludes with recommendations for policy, practice, and future research.

## **Identifying Developmental Education Problems and Solutions**

In response to evidence that developmental education does not increase the rates at which students pass college-level English and mathematics, faculty members and institutions began experimenting with alternative approaches to identifying and supporting students who enroll in college with academic needs. Several early reform strategies were found to have limited effectiveness when rigorously evaluated. These included pairing developmental courses with credit-bearing content courses to contextualize skill instruction, summer bridge programs to help students get a head start on their developmental coursework, modularized curricula intended to reduce the number of topics students need to review, and use of instructional software, such as ALEKS, to support self-paced learning (Barnett et al., 2012; Boatman, 2019; Visher et al., 2012; Weiss & Headlam, 2019). However, these innovations paved the way for additional research on the causes of poor outcomes in developmental education and development of new models. In 2021 and 2022, the Center for the Analysis of Postsecondary Readiness (CAPR) conducted a systematic review of the rigorous literature on reforms to developmental education to understand the types of reform approaches that are effective in helping students successfully complete college-level math and English and earn college credits and a credential (Bickerstaff et al., 2022). Looking across this body of evidence, the



problems and solutions to the developmental education challenge can be understood in terms of three mechanisms: placement, attrition, and instruction.

## **Placement**

Historically, most community colleges relied on commercially developed exams such as ACCUPLACER and COMPASS to place students. However, researchers documented that these measures were not predictive of student success in college-level courses (Scott-Clayton, 2012). This literature recommends that in lieu of a single standardized placement test, colleges use multiple cognitive (e.g., grades) and noncognitive (e.g., motivation) measures to reduce placement errors and close racial gaps in remediation (Ngo & Kwon, 2015; Scott-Clayton et al., 2014; Fong & Melguizo, 2017; Ngo et al., 2018). This practice is referred to as multiple measures assessment. Research has shown that high school GPA (HS GPA) is more predictive of success in college coursework than typical placement instruments (Bahr et al., 2019).

Perhaps more critically, these analyses established that traditional assessment practices and policies placed students into developmental education who could have been successful in college-level courses (Ngo & Melguizo, 2016; Melguizo et al., 2015). While more advantaged students increasingly have access to early college programs through dual enrollment and advanced placement programs, racially minoritized students and English learners are more likely to be required to retake courses they successfully completed in high school due to placement practices (Melguizo et al., 2021; Ngo & Melguizo, 2021).

Subsequent research has shown that changes to placement policies that increase access to college-level coursework result in more students successfully completing college-level coursework. In two recent random assignment studies of multiple measures assessment practices, researchers compared outcomes for students who were placed directly into college-level coursework with similar students who were referred to developmental education (Barnett et al., 2020; Cullinan & Biedzio,

2021). In one study conducted in Minnesota and Wisconsin, students who were bumped up into college-level coursework as a result of the multiple measures assessment intervention were 11 and 16 percentage points more likely to complete college-level math and English courses as compared to students referred to developmental education (Cullinan & Biedzio, 2021). Students in all racial/ethnic subpopulations that researchers investigated largely showed similar positive gains when granted access to college-level courses.

### **Attrition**

Second, studies identified the problem of student attrition in lengthy developmental course sequences. One study found that only 20% of community college students referred to developmental mathematics went on to pass college-level mathematics (Bailey et al., 2010). A long-standing body of descriptive and quasi-experimental research has shown that students who are placed in shorter rather than longer developmental sequences or who are placed in college-level rather than developmental courses are more likely to complete college-level math and English courses (e.g., Hodara & Jaggars, 2014; Ran & Lin, 2022; Xu & Dadgar, 2018). Lengthy developmental sequences have been shown to discourage persistence in college (Scott-Clayton & Rodriguez, 2012) and push STEM-aspiring students off a STEM track (Park, Ngo & Melguizo, 2021).

While a segment of students who would have traditionally been placed into developmental education can be successful when directly placed into a stand-alone college-level course (Barnett et al., 2020; Ran & Lin, 2022), the evidence suggests that colleges should offer targeted supports so that students with weaker preparation and other nonacademic needs can be successful in college-level courses. One of the most popular and promising strategies to offer that support is corequisite remediation, in which students enroll directly in college-level math or English and co-enroll in a support course designed to provide them “just-in-time” instruction to meet the college-level learning

outcomes. A growing body of evidence shows the effectiveness of this approach for improving both college-level course completion and longer-term outcomes (Logue et al., 2019). In one random assignment study, students in Texas who normally would have been placed into the highest-level prerequisite developmental education course were instead placed into a college-level English course with corequisite support. Intervention-group students were 18 percentage points more likely to complete a college-level English course within two years (Miller et al., 2022). In another experiment, students who enrolled in a 7.5-week intensive developmental math course followed by a 7.5-week intensive college-level math course were 9 percentage points more likely to earn a credential after three years (compared to students in a multi-semester sequence), also pointing to the promise of developmental education reform to improve graduation outcomes (Douglas et al., 2020). As with the experimental studies on placement, the research on these interventions also shows similar gains for all student subgroups.

### **Instruction**

Finally, researchers identified that typical instructional approaches in many multicourse developmental sequences have been a barrier to student engagement and deep learning. Curriculum and pedagogy in many developmental education courses predominantly focused on sub-skill acquisition—including, for example, reading being taught separately from writing, and mathematics taught with a focus on memorization (Cox, 2018; Cox & Dougherty, 2019). Authors of a large-scale qualitative study of developmental education in California characterized the instruction as “remedial pedagogy,” defined as a “part-to-whole” approach that fails to help students understand how and when to apply the skills that are taught (Grubb, 2012). Research in developmental mathematics has shown that this focus on memorization and decontextualized skills practice has a negative impact on student learning (Givvin et al., 2011; Quarles & Davis, 2017).

In contrast to these approaches, research suggests that students referred to developmental education benefit from a conceptually oriented curriculum and student-centered pedagogy. A conceptually oriented curriculum goes beyond memorization and rote learning to emphasize core ideas and competencies students need to be successful in college-level courses and beyond (AMATYC Impact, 2018; NASEAM, 2019). Rather than primarily lecturing and demonstrating, faculty employing student-centered pedagogy expect students to contribute ideas, discuss concepts, and justify their thinking. In their description of an “accelerated pedagogy” for reformed developmental education contexts, Hern and Snell (2013) describe a curriculum that “asks students to engage with issues that matter, wrestle with open-ended problems, and use resources from the class to reach and defend their own conclusions” (p. 7).

Two recent rigorous studies of mathematics reforms suggest that improved instruction can increase student success. In a math pathways approach, instead of all students enrolling in the same algebra-based developmental mathematics curriculum, students pursuing non-STEM majors are encouraged to enroll in quantitative literacy or statistics; many mathematics pathways reforms include a strong conceptual focus (Hartzler & Blair, 2019). A random assignment study of the Dana Center Mathematics Pathways (DCMP) found that DCMP courses were organized around concepts and big ideas that asked students to apply previously learned skills to unfamiliar and nonroutine concepts; this contrasts with standard developmental math courses that were likely to focus on discrete skills and emphasized rote practice. Students enrolled in the DCMP were 6 percentage points more likely to pass college-level math by their sixth semester (Biedzio & Sepanik, 2022).

Another experimental study evaluated CUNY Start, a program that includes a carefully designed curriculum taught by highly trained instructors, 12 hours per week of instruction per subject area, and embedded academic supports. Findings at four community colleges showed the contrast with standard developmental education courses was particularly notable in mathematics.

Students in CUNY Start math were more likely to report on a survey they worked in groups (38 percentage point difference) as compared to students in the control group. Almost all CUNY Start math instructors (97%) reported that they asked students to explain their thinking and discuss ideas with fellow students as compared to 64% of non-CUNY Start math instructors. CUNY Start students were 32 percentage points more likely to demonstrate college readiness in math by taking and successfully passing developmental education exit exams as compared to students in the control condition (Scrivener et al., 2018). Both the CUNY Start and DCMP evaluations showed similar positive outcomes across race.

### **Can Developmental Education Reform Improve Racial Equity in Higher Education?**

When rigorously evaluated, the interventions described above improved college-level course completion for students of all races, putting more Black and Hispanic students on a path to college success (Bickerstaff et al., 2022). Black and Hispanic students have historically been referred to developmental education at higher rates than their peers and thus have disproportionately suffered the negative effects of developmental education. Looking at the real-world effects of developmental education reform shows similar encouraging trends. For example, in 2013, Florida passed Senate Bill 1720, which made developmental education optional in the state's public colleges for students with a Florida high school diploma or in active-duty military service. While institutions could still offer developmental education, the law required they provide alternatives to traditional multi-semester sequences like, for example, corequisite models (Hu & Hu 2022). Researchers found that gaps in college course enrollment between White and Hispanic students effectively closed post-reform. Other outcome differences (i.e., college course completion) between White, Black and Hispanic students narrowed. Black and Hispanic students saw greater increases than White students in cohort-based passing rates in college-level English and intermediate algebra. Black and White

students appear to have experienced similar gains in cohort-based pass rates in college-level math (Park-Gaghan et al., 2021).

On the other hand, research shows that racialized outcome differences persist, even in reformed contexts. Eight recent rigorous studies of developmental education reforms specifically looked at the impact of an intervention for different racial/ethnic groups (Bickerstaff et al., 2022). Across these studies, a consistent trend emerged: Students in all student groups saw comparable gains in outcomes, but these gains do not necessarily narrow preexisting differences in outcomes for students impacted by the intervention. For example, in the random assignment study of the Dana Center Math Pathways, students in all racial groups in the treatment condition completed the developmental math sequence at higher rates than students in the control condition, but the differences in outcomes remained relatively stable. Findings show a comparable 15 percentage point difference in rates of completion between Black students and White students in both treatment and control conditions (Rutschow et al., 2019).

These findings suggest that institutions must pay close attention to equity not only in the design of interventions but also in their implementation (Brathwaite et al., 2020). Without an explicitly “race conscious” approach to implementation planning, it is unlikely that racial inequities will be completely eradicated (Center for Urban Education, 2017).<sup>4</sup> For example, because access to college-level courses is a key driver of success rates, leaders must focus on which policies and practices are systematically diverting Black and Hispanic students or students from other groups away from college-level courses (Kopko et al., 2022). This might occur when recent HS GPA is used as the primary measure exempting students from developmental education. In this case, older

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<sup>4</sup> Legislative prohibitions on affirmative action (like Proposition 209 in California) are associated with greater disparities in outcomes for underrepresented students in higher education (Cortes, 2010). In these contexts, race-conscious formative evaluation and implementation planning—which attend to the ways that institutional practices have unintended consequences for students from marginalized groups—are critical to identify opportunities within the allowable legal framework to dismantle barriers.

students and students who attended secondary school outside the United States may not have a suitable GPA and may thus be disproportionately placed in prerequisite developmental courses. Stronger and more explicit policies that provide fewer opportunities for colleges to offer and place students in prerequisite developmental education courses ensure staff do not allow racial bias to influence their advice to students on course selection. Research shows that when colleges have discretion in placement, students of color are more likely to be referred to remediation (Maldonado, 2019).

Inside the classroom, a plethora of scholarship has cataloged the barriers racially marginalized students face, including stereotype threat, myths about aptitude, and micro- and macroaggressions that insinuate that Black, Hispanic or other students of color do not belong in college. Research on instructional environments points to the value of culturally affirming or sustaining teaching practices to address these barriers. When applied in the context of developmental education reform, these practices may include incorporating culturally relevant concepts into the curriculum and foregrounding the relevance to students' personal experience (Dadgar, Buck, & Burdman, 2021); affirming and validating students' enrollment in college by providing encouragement and support (Rendon, 1994); actively dispelling racialized myths about student ability and building a sense of confidence and belonging (Miller-Cotto & Lewis, 2020); and addressing math anxiety and stereotype threat (Brathwaite et al., 2020; Walton & Cohen, 2007). In sum, the research suggests that changing placement practices and course structures to grant more community college students access to college-level math and English will reduce racial inequities. In concert with policy change, college faculty and staff must also actively counter biases; identify students' individual, social, and cultural strengths; and create a welcoming and inclusive learning environment that validates students as collegiate learners (Roberts, 2021).

## Developmental Education Reform in California: A Case Study

The story of developmental education reform in California’s community colleges is significant, both because of the huge numbers of students in the state who were impacted by developmental education and because of the dramatic changes brought on by legislative action. In 2015, 38% of first-time English students enrolled in College Composition (the transfer-level course).

<sup>5</sup> In the same year, only 21% of first-time math students enrolled in a transfer-level math course. By some estimates, 80% of California community college students were enrolled in developmental education courses. When Assembly Bill 705 took effect in fall 2019, 116 community colleges throughout the state replaced standardized tests with multiple measures of high school performance to determine college readiness. The bill established that students have the right to enroll in college-level courses unless “placement research...shows that those students are highly unlikely to succeed in transfer-level coursework in English and mathematics” (AB705 bill). Colleges are expected to develop the corequisite courses or academic supports necessary to maximize the probability that the students will pass math and English transfer-level courses within one year.

The journey to passing AB705 started in the early 2000s, catalyzed by local and national research and advanced by a combination of top-down and ground-up efforts. This story shows both the power and limitations of research, activism, and policy to advance racial equity in higher education.

The Basic Skills Initiative was an early state-level effort to address the problem of developmental education in California. As part of the 2006 System Strategic Plan, the Basic Skills Initiative asked colleges to develop and implement plans aimed at improving student success rates in

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<sup>5</sup> Because 80% of incoming community college students indicate an intention to transfer to a four-year college, the critical outcome for some researchers and policymakers is completion of a **transferable** (i.e., transfer-level) math or English course. This distinction acknowledges that some English and math courses may count for credit toward an associate’s degree but will not be accepted for credit in a bachelor’s degree program.



developmental education. This initiative served as the seed for creating the Student Success Task Force (SSTF), which appointed 20 members in 2011 to develop a report outlining key recommendations to advance student success. This report in turn laid the groundwork for the creation of the Student Success and Support Program (SSSP) in 2014, along with the return of Student Equity Planning (SEP). These two reporting programs were instrumental as they compelled colleges to develop and implement plans for core matriculation services such as assessment and placement and orientation, and help students define educational goals early on. While individual community colleges voluntarily took on initiatives like the Equity Scorecard (Bensimon & Malcom, 2012), the SEP was one of the first policies that asked all community colleges to improve outcomes and close equity gaps by key characteristics like race/ethnicity (Ching et al., 2020).

A year into the development of SSSP, the state allocated resources for colleges to apply for five-year grants to improve placement. More than half of the colleges received the grants. Yet the fact that colleges had full autonomy over assessment and placement meant that multiple measures were not followed consistently; colleges within the same district used different measures associated with different points, and the rules varied so much that in some cases multiple measure points were used to subtract points from the placement exam, which resulted in students being placed in a lower-level developmental course.

Parallel to these state-led initiatives, faculty were engaged in grassroots efforts to advocate for policy change and support one another to redesign curriculum and adopt new instructional practices. The California Acceleration Project, a faculty-led professional development network launched in 2010, disseminated research to community college faculty on the barriers of traditional developmental education placement and course sequences. Through convenings and online resources, they provided curricular models for alternatives to prerequisite remediation and created a network of faculty advocating for policy change.

Research conducted in California was also highly influential. In 2012, as part of a pilot study at Long Beach City College (LBCC), faculty and researchers incorporated high school performance measures into the college's placement algorithm. This resulted in an increase in college-level placement from 14% to 59% in English, and from 9% to 31% in math. LBCC compared the completion rates of college-level courses under the two versions and found slightly lower, but overall very similar, completion rates (62% versus 64% in English, and 51% versus 55% in math) (LBCC, 2014). The success of this initial pilot led to the Multiple Measures Assessment Project (MMAP), a state-level study that used transcript data to evaluate the potential benefits of using multiple measures (The RP Group, 2017). The MMAP expanded this work by using high school and college data from Cal-Pass Plus for students who entered the California Community College system between fall 2007 and summer 2014 to explore which measures of high school achievement best predicted course outcomes in college. They used decision trees that include simple "if-then" logical models that are more intuitive for the use of community college faculty and institutional researchers. They concluded that HS GPA is the most consistently used predictor of performance across levels of math and English. They found that the minimum GPA to access college-level math is 3.0, assuming that students did not complete pre-calculus in high school, and that the minimum HS GPA in English is 2.6 (Bahr et al., 2019). The results of this study led the California Community College Chancellor's Office (CCCCO) to recommend default HS GPA cutoffs for placement.

All of these efforts started to converge, and 2017 became a pivotal year. First, the CCCCCO, under the leadership of Chancellor Eloy Ortiz Oakley, created the five-year strategic plan, *Vision for Success*, that outlined six system-wide goals and seven commitments. This same year, the Chancellor's Office started the funded Guided Pathways Program, which pushed colleges and districts to create five-year plans that structure educational experiences, and the California College Promise and other district-level Promise programs, which waived fees for one academic year for first-time full-time

students. With LA Promise, students received additional academic and student support services. This was also the year AB705 passed and the California State University took similar policy action.<sup>6</sup> But even though AB705 provided a set of recommended thresholds for course placement based on students' HS GPA the bill left room for colleges to create their own placement rules and to customize and innovate the forms of concurrent support (i.e., corequisites) for students in transfer-level courses.<sup>7</sup>

### **Early AB705 Implementation and Outcomes**

Research suggests that access to, and success in, transfer-level math and English courses has increased substantially among first-time English and math students of all racial/ethnic groups after the implementation of AB705. In fall 2019, 96% of students who took an English course for the first time enrolled in transfer-level composition. In 2015, 48% of incoming students successfully completed a transfer-level English course in one term. By 2019, that one-term transfer-course completion rate had increased to 67% of first-time students. In math in fall 2019, 78% of students who took a math course for the first time enrolled in transfer-level math. In 2015, 14% of incoming students successfully completed a transfer-level math course in one term. By 2019, that one-term transfer-course completion rate had increased to 40% of first-time students (Cuellar Mejia et al., 2020).

Despite these dramatic improvements, equity gaps remain. While the numbers of Black and Hispanic students completing transfer-level math increased, the gains for White students were even larger. Thus, the math completion gap between White and Hispanic students increased from 10

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<sup>6</sup> In August 2017 the California State University (CSU) passed Executive Order 1110 (EO 1110) that retired the CSU assessment exams and required all colleges to remove prerequisite coursework in English and math/quantitative reasoning courses, and calls for alternative instructional modes to support students in credit-bearing courses. <https://www.calstate.edu/csu-system/why-the-csu-matters/graduation-initiative-2025/academic-preparation/Documents/eo1110-faq-april-4.pdf>

<sup>7</sup> Placement guidance can be found at [https://asccc.org/sites/default/files/AA%2018-40%20AB%20705%20Implementation%20Memorandum\\_.pdf](https://asccc.org/sites/default/files/AA%2018-40%20AB%20705%20Implementation%20Memorandum_.pdf)

percentage points in 2015 to 16 percentage points in 2019. The gap in course completion between White and Black students increased from 12 to 23 percentage points during that period (Cuellar Mejia et al., 2020). In transfer-level English as of 2020, racial gaps in course enrollments had been eliminated, but researchers found a 22-percentage point gap between Black and White students in completion of college composition and a 14-percentage point gap between Hispanic and White students (Cuellar Mejia et al., 2022). A more recent analysis shows that these trends have remained persistent. In 2022, the White-Black gap in one-term course completion of transfer-level math was 22 percentage points and the White-Latino gap was 17 points. And despite continued overall positive outcomes relative to before AB705, in 2022 about four in 10 first-time English students and half of first-time math students still did not pass the transfer-level course in one term (Cuellar Mejia et al., 2023).

A mixed-methods study of AB705 implementation in the largest community college district in the state offers a local perspective on the reform. The quantitative analysis at the district level mirrors statewide findings. In fall 2019, the enrollment of first time in college (FTIC) students tripled in transfer-level math (29%, up from 10% in fall 2017) and more than doubled in transfer-level English (56%, up from 25% in fall 2017). By race/ethnicity, the share of Black FTIC students enrolling in transfer-level math grew by a factor of 5, Filipina/o/x students by a factor of 3, and Latina/o/x by a factor of 3.4. Even though course pass rates declined in both transfer-level math and English, results illustrate that in one semester, the proportion of entering students who earned a passing grade grew by a factor of 1.8x in English and nearly 2.1x in math. This growth was especially large for Black, Filipina/o/x and Latina/o/x students, suggesting that AB705 is removing barriers to racially minoritized students' entry and completion of these critical courses (Melguizo et al., 2021; Ching et al., 2022).

The qualitative component of the project shows the mandate of AB705 was a powerful force for compelling changes to long-standing assessment and placement practices and approaches to preparing students for college-level work. Results show that despite unprecedented challenges brought up by the global pandemic, colleges in the district implemented a lot of changes in terms of removing the lower level of the prerequisite courses. Yet this study also shows that there remains skepticism—particularly, although not exclusively, from English and math faculty—of AB705’s impact on student outcomes and learning.

Drawing on survey data, documents, and interviews with those involved with implementing AB705, Ching and colleagues (2022) unpack the *logics* (Thornton & Ocasio, 2008) informing practitioner perspectives on the continued need for and legitimacy of prerequisite developmental education. Some of these logics draw on long-standing ideas about developmental education’s purpose, such as the need to compensate for failures of K-12 schooling in preparing students for college work and the idea that students should have the option of taking these courses to enhance their foundational skills and knowledge before tackling transfer-level courses. The latter was most prevalent among the 24 faculty, staff, and administrators interviewed. Other logics, discerned inductively, reflect ideas and norms that shape practitioner work. They included: 1) the need for faculty to keep control over academic and curricular matters but also to protect faculty jobs and changes in their work; 2) the idea that data—especially data specific to their campus—should determine developmental education efficacy; 3) the open access mission of community colleges, understood as meeting students where they are, at whatever level of preparation they come with; 4) the belief that learning happens sequentially and should start with mastery of basic skills; 5) the counseling norm of providing students options so that they can make an informed decision; and 6) the notion that developmental education is like preventative medicine: that is, developmental education will prepare students for subsequent courses and guards students from the harm that

accompanies academic failure. In short, many practitioners remained unconvinced that placing students in transfer-level courses would result in greater student success.

These concerns are reflected in statewide implementation trends. In 2021, the Chancellor's Office directed colleges to submit a plan documenting changes in placement practices and curricular structures in compliance with AB705. For colleges electing to continue pre-transfer level (i.e., stand-alone developmental) courses, colleges were directed to submit local data showing that completion is maximized for those students enrolling in developmental courses. The California Acceleration Project analyzed the reports submitted by 115 community colleges and found that 47 of the state's community colleges indicated an intent to continue offering stand-alone prerequisite developmental courses in fall 2022. Based on the authors' analysis, none of the 38 colleges that submitted the required data elements could justify continuing to offer pre-transfer level courses (California Acceleration Project, 2022). Their analysis showed that among the 24 colleges with the largest share of the state's Black community college student population, 50% intended to continue offering prerequisite remedial courses (as compared to 38% of colleges with fewer Black students). Similarly, among the 22 colleges with the largest share of the state's Hispanic population, 45% intended to continue offering prerequisite courses, as compared to 40% of other colleges. These patterns in uneven implementation likely partially explain race-based differences in access to college-level math.

### **AB1705 and Looking Ahead**

Despite AB705's early success in expanding access to transfer-level courses, reformers and advocates pointed to the persistence of stand-alone developmental education courses as a limitation of the policy. In early 2022, Assembly Member Jacqui Irwin, who initiated AB705, drafted AB1705. AB1705 "will require that a community college district or a community college not recommend or require students to enroll in pretransfer level English or mathematics coursework, except under specified circumstances." The California State Senate approved this amendment in 2022. Subsequent

implementation guidance from the Chancellor's Office directed that all U.S. high school graduates should be placed into transfer-level English and mathematics courses. The few exceptions noted include students who have not graduated from a U.S. high school or earned a high school equivalency degree and students with documented disabilities. The guidance also provides additional clarification on placement.

This more directive policy language is likely to result in fewer colleges offering stand-alone developmental education courses in mathematics (during the 2021-2022 academic year, 97% of community college students were placed into transfer-level English), with positive benefits for students. In 2023, the Campaign for College Opportunity recognized 56 California community colleges for excellence in placement. At several of these colleges, race-based outcome differences in transfer-level course completion have disappeared. While the number of colleges seeing racially equitable outcomes is still small, particularly in math, examining their practices can provide a road map for other colleges. The rigorous national evidence suggests that multifaceted academic and nonacademic supports, paired with culturally responsive curricular and pedagogical approaches, will be critical to ensuring Black, Hispanic, Native Americans, and low-income students enter college on a pathway to postsecondary success.

## **Recommendations**

Let's imagine a future in which faculty, staff, and leaders of community colleges have a shared vision of what it entails to support racial and ethnic minority students in reaching their educational goals and have a clear plan to achieve this vision. This means that they might be open to questioning developmental education policies and practices that have been in place for decades and be ready to work collaboratively to create an equity-focused assessment and placement system. It would also mean that students feel represented by the faculty teaching the courses as well as the

curriculum being studied. Community colleges will provide ample opportunities for the faculty to perfect the craft of teaching, offer high-quality online education that is being demanded by the students, and provide different entry points for faculty to develop their knowledge on active and culturally responsive pedagogy. Faculty will work collaboratively with counseling faculty as well as student and academic affairs professionals to design rigorous college-level courses that offer different levels of support based on a thoughtful assessment of the knowledge and skills that students bring. The ultimate goal is to offer rigorous coursework where students receive the support necessary to engage in an academically stimulating and demanding educational journey that would lead to the attainment of credentials or degrees valued by the local and broader job market.

Over the past decade, researchers, faculty, administrators, and policymakers in the state of California have made tremendous efforts to use multiple measures to place students in transfer-level courses with supports. The California story shows the utility of policy to motivate large-scale change in higher education. Despite years of research, advocacy, and grassroots faculty-led efforts, by 2018, large numbers of students continued to be enrolled in prerequisite developmental courses. And yet even after the deadline for full implementation in fall 2019, many colleges continued to divert students from transfer-level courses—perhaps driven by well-intentioned concerns over students’ ability to succeed. Analysis suggests that this pattern of uneven implementation may have exacerbated equity gaps.

Today, as they work toward implementing AB1705, California’s community colleges continue to make strides toward increasing the numbers of students who successfully complete transfer-level English and math. Yet the vision of providing all students the resources they need to earn a postsecondary degree has not been realized. In this section, we look to the future to anticipate the next frontiers for research, policy, and implementation. Some of these recommendations relate to challenges with AB705 implementation that have been well-documented. Others are related to



aspects of equitable postsecondary access and success that have received less attention in California's reform efforts thus far.

### **1. Address faculty and practitioners' beliefs**

Policy implementation literature establishes that stakeholders' beliefs are critical to success. Despite a plethora of rigorous research showing its shortcomings, many postsecondary educators continue to believe in the utility of prerequisite developmental education. These beliefs may intersect with implicit or explicit racial biases that suggest students are not yet capable of completing college-level work. To optimize implementation, colleges must move beyond debates over the utility of prerequisite courses and toward a robust cycle of inquiry and refinement to provide the best possible instruction and support for students enrolled in college-level courses. Professional development for stakeholders featuring local and national data may be one strategy to counter the logics that suggest that students benefit from developmental education. However, practitioners may also need to engage in self-reflection related to the assumptions they hold related to rigor, sequential learning, and basic skills mastery in their disciplines (Hern & Snell, 2013). These efforts are most likely to be successful if they are led by faculty and endorsed by trusted individuals and organizations (i.e., discipline societies and local and regional professional associations). At the same time, institutions have a role to play in setting the conditions to support and incentivize changes to teaching practice through allocating time and resources to professional learning and rewarding improvements and excellence in teaching (Austin, 2011).

### **2. Move from structural to instructional reform**

In California and nationally, colleges have improved students' outcomes by removing prerequisites and creating corequisite and other types of supports for students in transfer-level math and English courses. This means that most of the reform has been structural and curricular; course

offerings have changed but there has not been a direct focus on changing class pedagogy. Post-AB705, faculty are being asked to teach courses to groups of students that arrive with different levels of academic preparation. This means that faculty would probably need to learn to use differentiation strategies and use the contextualized and culturally relevant pedagogical strategies that have been proven successful with minoritized populations. As described above, California has adopted a faculty-led model of offering professional development to faculty to strengthen the pedagogical practice. The voluntary nature of these efforts means that professional learning opportunities may not reach faculty who have the greatest need for support. Community college leaders might try to design a system within their colleges that reaches all faculty. In recent years the state has received federal and other categorical funding that can be used to institutionalize the professional development opportunities and work with the academic senate so faculty are accountable for their pedagogical growth. The state could continue to rely on established networks such as CAP, California Community Colleges' Success Network (3CSN), Bensimon and Associates, and USC Race and Equity Center to provide the race- and equity-centered pedagogical training for faculty to adapt their pedagogical practices and beliefs to the common shared mission.

### **3. Improve data accessibility, reporting, and accountability**

The Chancellor's Office has made tremendous efforts in terms of democratizing data accessibility. The CCCCO Management Information System (MIS) portal enable colleges and districts to establish clear benchmarks and monitor the success of their efforts toward reforming developmental education. Data accessibility paired with a system of reporting on AB705 implementation has enabled community college leaders to work with academic senates to make sure that the colleges are in compliance with the law. The combination of data and accountability is one of the tools that leaders can use to advance policy implementation. It would be naïve to think that providing data is enough to move toward a shared vision of equalizing the success of minoritized

populations to realize the civil rights agenda. Findings of the AB705 mixed-methods implementation study suggest that stakeholders in many cases use the data to validate their own views that might be in contrast with the shared vision for student success implicit in the policy. This means that state- and district-level leaders might want to engage in a practice of bringing in different stakeholders early in the process of the policy implementation to review data, share the common vision, set explicit targets, and collaboratively establish strategies for student support.

#### **4. Expand equitable college access opportunities for students in high school**

As developmental education reform becomes increasingly institutionalized, community colleges have opportunities to look to new frontiers to increase equitable postsecondary access and success. Dual enrollment programs, early college high schools, and advanced placement coursework are increasingly popular strategies to help students earn college credits while still in high school. In California, dual enrollment grew by over 50% between 2015 and 2020 (Rodriguez & Gao, 2021). These approaches have the potential to increase college access, lower the cost of postsecondary education, and mitigate curricular misalignment between high school and college (Taylor et al., 2022). Research has shown that students who participate in these programs are more likely to earn a college degree (U.S. Department of Education, 2017; Song & Zeiser, 2019). Unfortunately, in California and nationally, Black and Hispanic students are underrepresented in dual enrollment and advanced placement programs (Xu et al., 2021). These disparities are driven in part by disparities in program offerings by school, district, and region as well as policies that restrict student access to the programs based on test scores or GPA (Fink et al., 2022; National Center for Education Statistics, 2020; Rodriguez & Gao, 2021). In California, even as AB705 has emphasized the elimination of stand-alone developmental education courses, remedial courses in math and English can be offered as dual enrollment (Rodriguez & Gao, 2021). Thus, to fully leverage the possibility of early college

access programs, state and local policy should prioritize and incentivize expanding equitable access to coursework that leads to a college credential.

## **5. Address barriers facing English learners**

Finally, English learners have traditionally been referred to prerequisite noncredit English as a Second Language (ESL) courses that present barriers to college-level course enrollment that are similar to developmental education; yet English learners have been largely overlooked in research, reform, and policy action on developmental education (Flores & Drake, 2014). In California, it is estimated that about 17% of community college students enroll in ESL classes (Rodriguez et al., 2019) and up to 25% of community college students may identify as English learners or immigrants (Llosa & Bunch, 2011). Community colleges often use standardized placement instruments to refer English learner students to lengthy ESL course sequences that may take years to complete (Bunch et al., 2011). One study found that 75% of former English learners who met college readiness standards in high school were placed into developmental English, with Black and Hispanic students disproportionately referred to developmental education. In California, most students who enroll in ESL courses do not go on to complete a college-level English course (Rodriguez et al., 2019).

While the research base on effective strategies to support college success for English learners is comparatively small, emerging evidence suggests that students will benefit from earlier and expanded access to college-level courses. Hayward and colleagues (2022) found that English learners in California who graduated from U.S. high schools were more likely to complete college-level English if given direct access, as compared to similar students who were referred to ESL sequences. To support earlier access to college-level courses, colleges might shorten ESL sequences, create a direct pathway from ESL to transfer-level English, and develop transfer-level ESL classes

(Rodriguez et al., 2019). Curricular reforms can also support the English language development of students with English learning needs in college—for example, by integrating language instruction in college-level courses, providing instruction in students’ first language (Hayward et al., 2022).

## Conclusion

A college education provides a gateway to social mobility, financial security, learning, and personal enrichment. Despite widespread student success initiatives in the postsecondary sector, disparities in rates of college completion by race are persistent. Thus, addressing the systemic barriers to college completion must be a critical component of the civil rights agenda for the next 25 years. Community colleges, which offer a local, affordable onramp to higher education, are a primary entry point to college for thousands of low-income and first-generation college students in California each year. In two-year colleges (and to a lesser extent at four-year institutions), developmental education has served as a barrier to student persistence and credit accrual, particularly for Black, Hispanic, and low-income students.

Efforts to improve high school quality and narrow high school disparities by race must certainly be part of the effort to advance equity in postsecondary attainment. However, in the past decade, rigorous research has shown that developmental education reform can be an effective leverage point for narrowing achievement gaps in higher education. Broadening access to college-level courses, providing academic and nonacademic supports, and improving curriculum and instruction can put students on the path to postsecondary success, even for those who may have academic weaknesses stemming from their K-12 experiences. California has been a leader in implementing evidence-based reforms; and since the state legislature passed AB705 in 2017, the rates at which students enroll in and pass transfer-level math and English have improved and disparities by race have narrowed.

Despite these important gains, additional efforts are needed to achieve a vision of equitable college access and success. Research in California shows that stand-alone developmental courses continue to be offered, Black and Hispanic students continue to be enrolled in them at higher rates, and as a result the state continues to see continued disparities in access to college-level courses by race. In addition, strategies to grant students access to college while still enrolled in high school (i.e., dual enrollment) may exacerbate these inequities. English learners make up a sizable proportion of the community college-going population, and many of these students continue to be referred to lengthy precollege, noncredit sequences that serve to delay and defer their enrollment in college-level courses. Additional empirical evidence is needed to identify placement, course design, and student support strategies to promote degree attainment among English learner students in higher education.

Over the last two decades, the changes in developmental education in community colleges have been dramatic. Building on the improvements in California and nationally, the field is entering the next phase of developmental education reform—one that systematically identifies the policies and practices that serve as barriers to college access, that centers equity through research and accountability structures, and that supports changes to teaching practice through faculty development.

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