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Reforming English Pathways at California's Community Colleges

SUMMARY

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Technical appendices to this paper are available on the PPIC website.

California's community colleges are in the midst of numerous reforms to improve developmental (also known as remedial or basic skills) education. Developmental education is supposed to help prepare students for college work, but it has long been an obstacle to student success: most students in developmental courses never go on to complete a college-level course in English or math.

In this report, we focus on reforms to developmental English pathways at California's community colleges. We examine different approaches to reform and their prevalence, and present new evidence on the effectiveness of one of the most common reforms, one-semester acceleration. We find:

- **The structure and length of developmental English pathways vary considerably.** Depending on their college, students in developmental English may face between one and seven courses before they can enroll in college composition. Twenty-two colleges offer a traditional pathway, which involves stand-alone reading and writing courses. Reforms differ in their scope and intensity: 46 colleges have integrated all of their reading and writing courses, and 25 offer a mix of integrated and stand-alone courses. Thirty colleges offer one-semester acceleration, and seven colleges allow students placed into developmental English to enroll directly in college composition with concurrent support (known as a co-requisite model).
- **One-semester acceleration substantially shortens the typical developmental pathway.** At colleges offering this reform, students placed into developmental English can enroll in a highly intensive course that leads directly to college composition. This course often integrates reading, writing, and critical thinking. Even though these courses only served about 9.4 percent of first-time developmental education students in 2016–17, enrollment has grown rapidly in the last few years.
- **Students who take one-semester acceleration have better outcomes.** Overall, students who start in one-semester acceleration have a greater likelihood of completing college composition within two years, compared to those who start two or three levels below college composition (42% versus 27% and 14%, respectively). We see improved outcomes across ethnic, gender, and income groups. Moreover, we find that students who take one-semester acceleration are adequately prepared for college-level work. Success rates in college composition are similar for students in accelerated and non-accelerated pathways.
- **Despite improvements, most students in accelerated courses do not complete college composition.** Even with one-semester acceleration, only 42 percent of students go on to pass college composition within two

years—a much smaller share than for students who do not take developmental English (77%). Colleges should look for additional ways to improve pathways for developmental English students, and the co-requisite model is emerging as a promising approach.

- **Equity gaps remain large for underrepresented students.** For example, 31 percent of African Americans who start in one-semester acceleration go on to complete college composition, compared to 52 percent of Asian Americans. Our interviews suggest that pedagogical and curricular reforms—such as the use of culturally relevant topics, collaborative group activities, and attention to affective issues that influence student learning—can help engage students and address achievement gaps.

Our findings add to the body of evidence showing promising results for students in accelerated courses, but more work needs to be done. As colleges continue to explore different reforms, they should make one-semester acceleration available to more students. But establishing and implementing best practices in course redesign and pedagogy will be critical to successfully scaling up this approach. In recent years, colleges have adopted wide-ranging reforms, and additional research is necessary to assess whether these efforts are improving student outcomes consistently and narrowing achievement gaps. Identifying effective reforms and bringing them to scale will help more California students achieve their academic and career goals.

Introduction

Across the California Community College (CCC) system, 80 percent of entering students enroll in developmental (or remedial) education in reading, writing, and/or math.[1] Many of these students never advance to college-level English or math, and most do not reach their academic goals. Our prior research finds that only 27 percent of students who took at least one developmental math course and 44 percent of those who took developmental English completed a college-level course in the same discipline. Furthermore, we find that only 24 percent of students who ever enrolled in developmental coursework transferred to a four-year college after six years, compared to 65 percent of those who were deemed college ready. Students from underrepresented ethnic groups and students from low-income backgrounds are disproportionately affected as they are more likely to enroll in developmental education and begin the sequence at lower levels (Cuellar Mejia, Rodriguez, and Johnson 2016).

Concerns about the poor track record of developmental education and increased interest in improving college completion rates have led to a national reform movement (Bailey, Jaggars, and Jenkins 2015; California Acceleration Project 2015). In a recent report, we provided an in-depth look at the reforms undertaken across California's community colleges to address poor outcomes in math (Rodriguez et al. 2017). In this report, we highlight reform efforts underway in developmental English.

As with developmental math reforms, reforms to developmental English pathways have been spurred by research findings in four key areas:

- Studies showing that large numbers of students drop out before making progress in college, and that the more levels in the developmental sequence, the lower the completion rate of college-level courses (Bailey, Jeong, and Cho 2010; Cuellar Mejia, Rodriguez, and Johnson 2016);
- Evidence that traditional developmental English sequences have mostly negative to null impacts (Bettinger and Long 2009; Boatman and Long 2010; Calcagno and Long 2008; Clotfelter et al. 2015; Martorell and McFarlin 2011; Scott-Clayton and Rodriguez 2015);
- Studies questioning the accuracy of the standardized tests that sort students into different levels of developmental education (Scott-Clayton 2012; Scott-Clayton, Crosta, and Belfield 2014);
- Research suggesting that acceleration models—including one-semester acceleration, multilevel integrated reading and writing sequences, and co-requisite models—show promise in improving students' progression through developmental English and into transfer-level English (Cho et al. 2012; Coleman 2015; Denley 2016; Edgecombe et al. 2014; Hayward and Willett 2014; Hern 2011; Hern and Snell 2013; Hodara and Jaggars 2014; Jaggars et al. 2015; Jenkins et al. 2010; Kuehner and Hurley, forthcoming).

Despite the wide-ranging evidence and momentum behind developmental education reforms nationwide, the existing research for California is limited to a small group of colleges (Edgecombe et al. 2014; Hayward and Willett 2014). For developmental English in particular, little is known about how different community colleges are approaching reform and if these reforms are effective at improving student outcomes.

Our study uses an exhaustive scan of college catalogs and student-level enrollment data to provide a detailed description of the current landscape of developmental English at California's community colleges. First, we provide context by describing ongoing reforms that community colleges are making to how they assess and place students into developmental education. Next, we identify the different ways in which developmental English

[1] Half of these students took at least one course in both subject areas. Math is a greater challenge than English for entering students: 65 percent of developmental education students enrolled in a developmental math course, compared to 54 percent in developmental English.

pathways are structured across colleges and the prevalence of major reforms. Then, we present new evidence on the effectiveness of one of the most common approaches to developmental English reform: one-semester acceleration. To help better understand the key factors associated with improved student outcomes, we incorporate key themes that emerged from semi-structured interviews with community college faculty and administrators involved in reforming developmental English pathways.[2] We conclude with several policy recommendations drawn from this research.

Glossary of Terms

Co-requisite remediation: This reform replaces prerequisite remedial sequences with just-in-time support for students while they are enrolled in college composition. Academic support is focused on the skills and competencies essential for success in college-level courses.

College composition: An introductory course that offers instruction in expository and argumentative writing, appropriate and effective use of language, close reading, cogent thinking, research strategies, information literacy, and documentation. This is a degree-applicable course and transferable to both the University of California and California State University. The C-ID number for this course is ENGL 100.

Course success rate: Share of students passing a course with a grade of C or better.

Developmental English course: For the purposes of this report, this includes any reading, writing, or integrated reading and writing courses required for a student to access college composition. These courses are not transferrable.

First-time developmental English enrollees: This cohort is determined by the first term in which students took developmental English. It is worth noting that many of the students required to enroll in developmental courses are not, in fact, academically underprepared; many were inappropriately placed into developmental courses.

Integrated reading and writing (IRW): Courses or sequences where both reading and writing skills are taught in the same course; students learn both sets of competencies, using writing to demonstrate their reading comprehension. By combining subjects, fewer courses are needed before students can progress to college composition.

Low acceleration: Accelerated courses that have as a prerequisite the completion of another course. Because a majority of students clear the prerequisite or minimum placement score requirement, they accrue similar benefits as students in one-semester acceleration. These courses usually integrate reading and writing instruction.

Mixed sequence: Multilevel sequence that includes integrated reading and writing courses in conjunction with stand-alone reading and/or writing courses.

One-semester acceleration: One-semester (or one-term) accelerated developmental English course that leads directly into college composition. These courses usually integrate reading and writing instruction.

Throughput rate: Percent of developmental English students successfully completing a college composition course within two years (i.e., received a grade of C or better).

Traditional developmental education sequence: Multilevel sequence composed of separate reading and writing courses.

[2] In fall 2017, we spoke with 13 individuals—12 faculty members and one administrator (a dean of language arts)—at 11 colleges across the state. We chose a group of colleges that are representative of the different reforms taking place (including integrated reading and writing and one-semester acceleration) and the varying scales of implementation. See Technical Appendix A for more details on our methods and analysis.

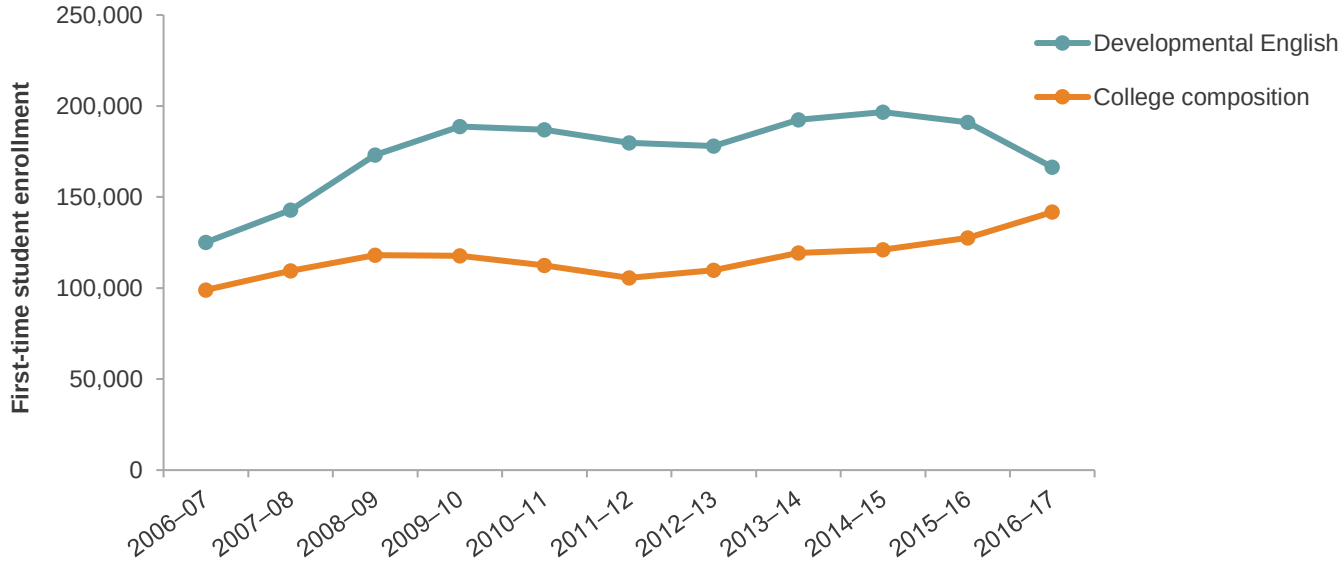
Colleges Are Engaging in Placement Reforms

While this report focuses primarily on reforms to developmental English pathways (or course sequences), colleges have also been changing how students are assessed and placed into developmental education in the first place. Motivated by research questioning the accuracy of traditional placement tests, more colleges have begun using multiple placement measures, with the goal of determining student readiness more accurately and enabling more students to take transfer-level courses earlier on in their academic journey (Bahr et al. 2017; Henson, Hern, and Snell 2017; Multiple Measures Assessment Project 2015, 2016).

Consistent with these changes, in the last couple of years we have started to see an increase in the number of students enrolled directly in college composition, while the number of first-time developmental English enrollees has started to trend downward (Figure 1).[3] In 2016–17, about 141,700 students enrolled for the first time in college composition in one of California's community colleges, up 11 percent from the previous academic year. Meanwhile, the number of first-time developmental English students decreased 13 percent from 191,000 to about 166,500. We observed decreases in 92 of the 114 colleges, 11 of which reported decreases of more than 30 percent.

FIGURE 1

The number of students enrolling directly into college composition is increasing



SOURCE: Authors' calculations based on CCC Chancellor's Office Management Information System (COMIS) data.

NOTE: Cohorts are defined by first term of enrollment in a course below transfer level.

Using multiple measures for placement has been a powerful lever for improving access to college composition. Las Positas, Long Beach City, Mt. San Jacinto, Porterville, San Mateo, Santa Ana, Solano, and West LA Colleges are among the colleges that have started to implement a more robust approach to multiple measures, in which

[3] Part of this decrease could be attributed to changes in the academic preparation of incoming students, but this seems unlikely. Also, these trends could be impacted by changes in overall enrollment at the community colleges. However, this does not seem to be the case either considering that first-time enrollment has grown slightly in the last couple of years.

course placement is determined by placement test scores or high school records like GPA, whichever is higher.[4] These were also among the colleges that reported the largest decreases in first-time developmental English enrollment (and also the largest increases in first-time enrollment in college composition). Some of these colleges (e.g., Solano and Mt. San Jacinto) have also lowered the test scores required for placement into college English.

Following recent legislation mandating the use of high school records for placement (see text box on the following page), we expect to see even sharper declines in developmental English enrollment in the coming years. Research has consistently shown that measures of academic performance in high school are the single best available predictor of student success in college (Bahr et al. 2017; Scott-Clayton 2012; Scott-Clayton, Crosta, and Belfield 2014). Indeed, in our interviews, several faculty members noted that the passage of Assembly Bill (AB) 705 provides a tremendous opportunity for adopting and scaling placement reforms and changes to developmental English pathways.

Colleges that have already implemented a more robust and systematic use of multiple measures are enthusiastic about the early gains in completion of transfer-level English. For example, a recent report found that the use of multiple measures—in conjunction with a co-requisite model in which students are directly placed into college composition with a concurrent support course—broadened access to college composition at Solano College, increasing the share of students eligible for college composition from 18 percent to more than 70 percent (Henson, Hern, and Snell 2017). The college saw steady pass rates, despite more students enrolling in college composition. Also, the overall share of students completing college English doubled (from 31% in one year to 65% in one semester). In addition, at Long Beach City College, using high school achievement data instead of placement test scores nearly quadrupled overall access to college composition (14% to 59%) and more than doubled the share of these students who successfully complete college composition (24% to 52%) (Long Beach City College, n.d.).

[4] Despite having multiple-measures policies on the books, results from a survey of assessment and placement policies and practices in California's community colleges found between 7 and 23 percent of colleges reporting English placement policies in which the use of multiple measures was initiated only if students requested it or challenged their placement (Rodriguez, Cuellar Mejia, and Johnson 2016).

Assembly Bill 705 (Irwin)

The changing landscape of assessment and placement in California's community colleges is being spearheaded by AB 705, a legislative proposal introduced by Assemblymember Jacqui Irwin that was signed into law by Governor Brown in October 2017. The bill requires community colleges to maximize the probability that students will enter and complete transfer-level coursework in English and mathematics within one year and mandates that colleges use high school records (e.g., coursework, grades, and/or grade point average) as the primary criteria for placement recommendations (California Legislative Information 2017).

This is a significant move as colleges have traditionally relied on standardized placement tests to determine which math and English courses students should take (Rodriguez, Cuellar Mejia, and Johnson 2016). Given the mounting evidence questioning the validity of placement tests, this mandate is intended to improve placement accuracy and help ensure students are not placed into remedial courses unless they are highly unlikely to succeed without them. The policy change aims to help reduce achievement gaps, reduce the time-to-degree, and improve the likelihood that students will achieve their academic and career goals.

While AB 705 focuses on changes to assessment and placement, it is anticipated that the one-year timeframe for completing transfer-level English and math will also affect developmental course sequences. The move from multilevel developmental sequences to co-requisites and one-term developmental education acceleration strategies are some of the approaches that have figured prominently in these discussions.

It is expected that AB 705 will achieve full compliance by fall 2019. In order to ensure that the policy changes established by AB 705 are well implemented, the Chancellor's Office has assembled a team that will provide guidance for implementation (Hope and Bruno 2017). Additionally, faculty-led professional development groups, including the California Acceleration Project, are starting to offer workshops to help colleges learn more about implementing co-requisite courses as a means of complying with AB 705 (California Acceleration Project 2018).

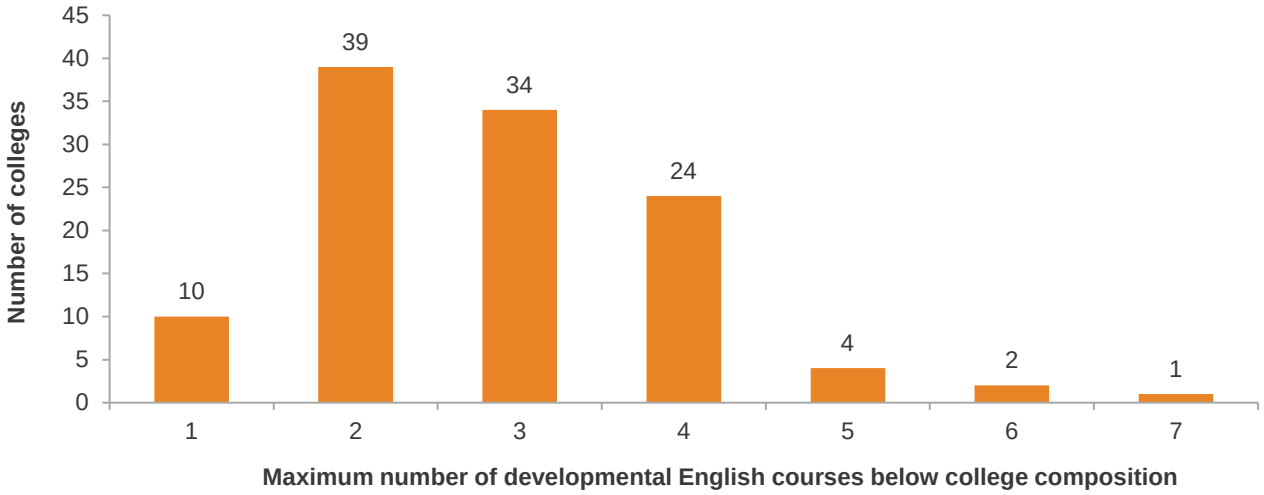
Developmental English Pathways Vary Widely

Amid a changing assessment and placement landscape, colleges are also reforming developmental English pathways to improve student success. Currently, the organization and sequencing of developmental English courses vary considerably from college to college—sometimes even differing across colleges within a single district. This variation means that students placed into developmental English may face anywhere between one and seven courses before they are able to enroll in college composition (Figure 2).[5]

[5] In addition, wide variation in colleges' assessment and placement policies means that students with the same score on a standardized placement test may not be placed into similar courses (Rodriguez, Cuellar Mejia, and Johnson 2016).

FIGURE 2

Students in developmental English may face one to seven courses before college composition



SOURCE: Authors' calculations based on scan of 2016–17 college catalogs and COMIS data.

The Traditional Developmental English Pathway

Traditional developmental English pathways are structured as multilevel sequences that include courses from two separate departments: writing courses offered through the English Department and reading courses housed in a stand-alone Reading Department. Pedagogically, these courses emphasize a "part-to-whole" decontextualized approach to learning (Grubb and Gabriner 2013). In a traditional writing course, students must demonstrate mastery writing sentences before crafting paragraphs and must show mastery crafting paragraphs before composing essays; in a traditional reading course, students use worksheets to develop vocabulary skills and examine short excerpts on different topics and by different authors (Kuehner and Hurley, forthcoming). This skills-based pedagogy, characterized by Grubb and colleagues (2011) as "remedial pedagogy," does not generally encourage critical thinking and usually lacks any reference to how these skills will be used in subsequent courses.[6]

Generally, traditional reading and writing sequences are each two or three courses long. If students were to take reading and writing courses concurrently, this means that students placed into the lowest level would face up to three semesters of developmental education (or six courses) before gaining access to college-level work. Unfortunately, students often take the reading and writing courses during separate semesters, increasing the length of time required before they are able to enroll in college composition.

In our interviews, faculty shared that the length and structure of traditional developmental sequences are often based on the notion that if students are not doing well in reading and writing courses, they "need more time" to acquire the skills necessary to succeed in college composition. Therefore, colleges might add another level to the sequence to slow down the pace or require students to take additional support courses, such as supplemental reading and/or writing labs.

[6] This terminology emerged from in-depth qualitative research by Grubb and colleagues conducted in 13 of California's community colleges.

Reforming Developmental English Pathways

Over the past several years, there has been a movement away from traditional developmental pathways toward a more streamlined approach. Similar to the developmental math landscape, different types of reforms to developmental English are taking place across California's community colleges (Cuellar Mejia, Rodriguez, and Johnson 2016). At their core, all of these reforms have two underlying principles: (1) reduce the length of time necessary to complete developmental education requirements, moving students into college-level coursework more quickly, and (2) address the misalignment between traditional remediation and college-level coursework. The most comprehensive reforms tackle not only the length and structure of the sequences but also engage in substantive pedagogical and curricular course redesign.

As more and more colleges have implemented reforms, the main source of variation in developmental English pathways across colleges is now the scope and intensity of the implemented reforms. Currently, only 22 colleges still require students to complete separate reading and writing course sequences (the traditional pathway) in order to enroll in college composition (Figure 3 panel A).[7] Figure 3 (panel B) also shows the different ways in which colleges have transformed their developmental English course offerings to accelerate students' progress and increase completion of college composition.

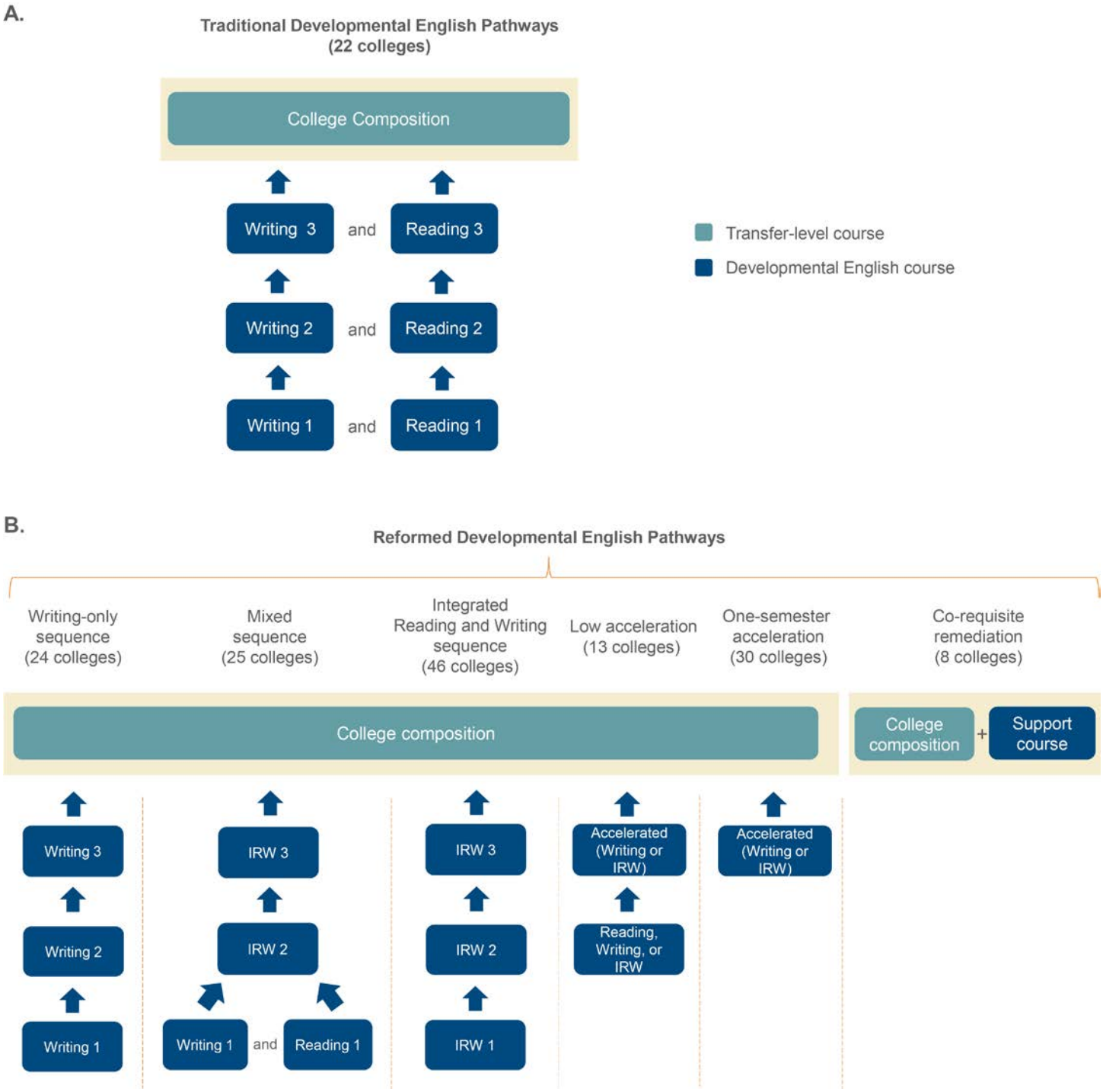
Reforms vary in the degree to which they alter the traditional pathway. A number of colleges have continued to offer stand-alone writing courses but stopped requiring stand-alone reading courses as a prerequisite for college composition. In fact, at the vast majority of colleges (76 of the 114 colleges in the system), students are no longer required to take any stand-alone reading courses on their path to college composition. A sizeable group of colleges have started to offer integrated reading and writing instruction—thus reducing the number of courses in the sequence. However, some colleges offer integrated courses at every level of their developmental sequence, while others offer them only at a certain level (creating what we call "mixed sequences"). Another group of colleges took a step forward by giving students the opportunity to enroll in a highly intensive, accelerated developmental English course that leads to college composition. Colleges can allow students to enroll in the accelerated course after completing a prerequisite developmental course (what we call "low acceleration") or they can allow all students placed into developmental English to enroll directly in a one-semester accelerated course. Finally, another ambitious group of colleges allow students to enroll directly in college composition while providing concurrent support (a model is known as co-requisite remediation).

As shown in Figure 3, students' experiences in developmental English depend very much on which college they attend. Moreover, since most colleges offer more than one developmental pathway to college composition, even within a single college, some students might have access to a reform pathway while other students might not, creating further inconsistencies in how long it takes for students to complete developmental coursework and move on to college composition.

[7] However, in 6 of these 22 colleges there is an alternative reform pathway available.

FIGURE 3

The pathways to college composition vary widely across California's community colleges



SOURCE: Authors' analyses based on 2016–17 college catalogs and COMIS data.

NOTE: Most of the 114 colleges in the system offer more than one pathway to college composition, which is why the sum of colleges across the different developmental English structures is not 114. In terms of length, developmental English course sequences can be two (51 colleges), three (43 colleges), or even four levels long (8 colleges). In 12 colleges, we only observed enrollment in courses (accelerated or not) one level below college composition. Because the mixed sequence can take different forms, we show only one of those forms as an example.

Reforms Aim to Accelerate Student Progress

In this section, we describe in more detail three types of reforms used by community colleges across the system to accelerate students' progress, namely:

- Integrated Reading and Writing (IRW) courses
- One-semester acceleration and low acceleration
- Co-requisite remediation

For each category, we describe the reform, its prevalence among community colleges (including enrollment data where available), how it is generally being implemented, and how students learn about and enroll in these courses. Where relevant, we highlight examples of these reforms in practice at select colleges. It is important to note that these reforms are not mutually exclusive. As mentioned above, individual colleges can offer multiple types of developmental English pathways, and even a single course can represent more than one kind of reform (e.g., most one-semester acceleration courses are also integrated reading and writing courses).

Integrated Reading and Writing Courses

One way colleges in California and across the country have redesigned the traditional developmental English sequence is by combining separate reading and writing courses into a single course, known as integrated reading and writing (IRW) (Bickerstaff and Raufman 2017; Kuehner and Hurley, forthcoming). This reform accelerates progression through the developmental sequence—for example, integrating a traditional two-level reading and writing sequence can cut the number of courses required by half, from four to two.

Integrated reading and writing courses can involve curricular and pedagogical adjustments to what is taught and how it is taught, as well as structural changes. Recent research has described two different approaches to integrated courses: The additive approach combines assignments and activities from stand-alone developmental reading and writing classes, while still focusing on the mastery of discrete skills. In contrast, the integrative approach involves redesigning the course with an emphasis on connecting reading and writing through theme-based units, text-based reading and writing, contextualized skill instruction, and reflection on the reading and writing process (Bickerstaff and Raufman 2017).[8] Even when IRW courses use similar curricular and pedagogical strategies, it is possible that structural differences remain. For instance, an IRW course can be co-taught by reading and writing instructors or taught by a single instructor who is certified to teach one or both subjects (see text box on the following page).[9]

[8] Unfortunately, based on the available student data and catalog scan we are unable to discern details about whether courses in our study used an additive or integrative approach, or whether courses were co-taught or not. However, these decisions generally happen at the college level and may help explain institutional variation.
[9] For IRW courses taught by a single instructor, some colleges allow faculty with either reading or writing qualifications to teach the course, while others require faculty to have the minimum qualifications to teach both reading and writing.

Two Approaches to Integrated Reading and Writing

Ohlone College and De Anza College present successful examples of how integrated courses can be implemented with different structures but similar pedagogical and curricular approaches. Both colleges also offer a traditional, separate reading and writing sequence in addition to the IRW pathway. Below we summarize the main differences between the two approaches as of fall 2017 (Kuehner and Hurley, forthcoming; De Anza College n.d.).

Ohlone College offers IRW courses taught by a single instructor:

- Instruction in both reading and writing is interwoven throughout lessons. Special attention is given to incorporating culturally responsive curricula and responding to students' affective needs.
- Students taking an IRW course must pass the course to receive reading and writing credit (i.e., they cannot receive reading and writing credits separately).
- IRW courses are open to all college students who place one level below transfer or who complete developmental reading and writing courses two levels below transfer. Starting fall 2018, the college will eliminate the separate reading and writing courses two levels below transfer, and all students will have direct access to IRW courses.
- The college operates on a semester system, so students starting at the lowest level can potentially complete college composition within three semesters.

De Anza College offers team-taught IRW courses:

- The course is structured such that students have separate reading days and writing days, taught by different instructors. An integrative approach and culturally responsive curricula are key components of the course.
- Students who pass reading but not writing (or vice versa) only get credit for that part of the course and must retake the stand-alone course they failed.
- The course is open to students who placed into both reading and writing courses.
- Most IRW courses are integral to other campus initiatives, such as the Learning in Communities program (LinC) and various cohort-based programs.
- The college operates on the quarter system, so with a two-level IRW sequence, students can potentially complete college composition within one year.

The scale of IRW implementation varies across campuses. At some colleges, every level in the developmental English sequence is an integrated course (e.g., Mira Costa and San Mateo Colleges), while other colleges offer sequences with separate writing and reading courses at lower levels but then offer an IRW course one level below college composition (e.g., Modesto Junior and Palo Verde Colleges). As shown in Figure 3 above, we identified 46 colleges that offer multilevel integrated sequences (i.e., where every level in the sequence is an integrated course). In addition, we identified 25 colleges that offer a sequence with both integrated and stand-alone courses.[10] It is important to note that the structure, curriculum, and pedagogy used in these courses differ across colleges. Without a more in-depth exploration, it is challenging to identify systemwide which colleges implemented both structural and pedagogical reforms.

However, in our interviews, faculty consistently shared that they were motivated to integrate reading and writing because they understood the strong relationship between the two areas—stating, for example, that if "students can

[10] As we will mention in the next section, most one-semester accelerated and low-accelerated courses are in fact IRW courses.

understand the reading, they will do well in writing." To help students acquire reading and writing skills, faculty frequently cited thematically grouped and culturally relevant readings, including full-length texts and articles, to help engage students. Example themes include social justice, equity, racism, and student success. Faculty often paired these readings with active learning strategies and collaborative group activities to help students with reading comprehension. Readings then presented an opportunity for students to practice building an argument and drawing from sources in their writing assignments.

The California Acceleration Project (CAP), a faculty-led movement designed to increase the success of developmental math and English students, has played a key role in educating and helping colleges with their reform efforts. To assist with planning and implementation of the IRW pathway, faculty often reported using CAP's five design principles for a "high-challenge, high-support classroom":

1. Backward design from college-level courses, which means students should engage in similar literacy tasks as they would in a college course;
2. Relevant, thinking-oriented curriculum, with an emphasis on higher-level thinking skills, such as argumentation;
3. Just-in-time remediation, in which grammar or error correction is taught when appropriate and necessary;
4. Low-stakes, collaborative practice to allow students to improve before being assessed; and
5. Intentional support for students' affective needs to engage, support, and encourage novice learners (Hern and Snell 2013).

Additionally, faculty frequently cited the use of CAP's instructional cycle, which consists of pre-reading activities, at-home reading activities, post-reading activities, reading accountability, pre-writing, essay writing, and reflection and revision (Hern 2016; Hern and Snell 2013).[11] Others also reported developing their own departmental pedagogical principles that emphasize the integration of reading, writing, and critical thinking; theme-based units with culturally relevant readings and text-based writing assignments; and attention to students' affective learning domain, or how students' affective needs influence their learning.[12] Faculty also reported benefiting greatly from professional development provided by CAP's training institutes and the California Community Colleges' Success Network (3CSN) Reading Apprenticeship project. They particularly appreciated seeing sample assignments and activities, receiving support to develop themes and a new curriculum, and learning from other faculty members engaged in IRW reforms.

Students learn about the IRW pathway in a variety of ways, including from counselors, during outreach and orientation activities, during the assessment process, through the course schedule, and by word of mouth. At colleges that have more than one developmental English pathway, faculty perceived that students often choose to enroll in an IRW course because it allows them to complete the developmental English sequence in less time, often reducing the sequence by half. Faculty also noted that IRW courses can save students money on tuition and other costs because separate reading and writing courses often require students to enroll in more units and purchase different books.[13] Faculty reported that students in IRW courses tend to like the thematic approach, culturally responsive reading and writing assignments, and collaborative group activities. These elements were also considered to be important in helping reduce achievement gaps for students of color, given that the readings and related assignments and activities are more attentive to the experiences of diverse communities and facilitate more meaningful connections between students and their peers.

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[11] See Kuehner and Hurley (forthcoming) and Hern (2016) for a detailed description of how CAP's five design principles and the instructional cycle are used in the IRW classroom.

[12] See Chabot College English Department's instructional philosophy for an example (Chabot College n.d.).

[13] Research by the Center for American Progress finds that developmental education courses cost students and families $1.3 billion nationwide (Jimenez et al. 2016).

One-Semester Acceleration and Low Acceleration

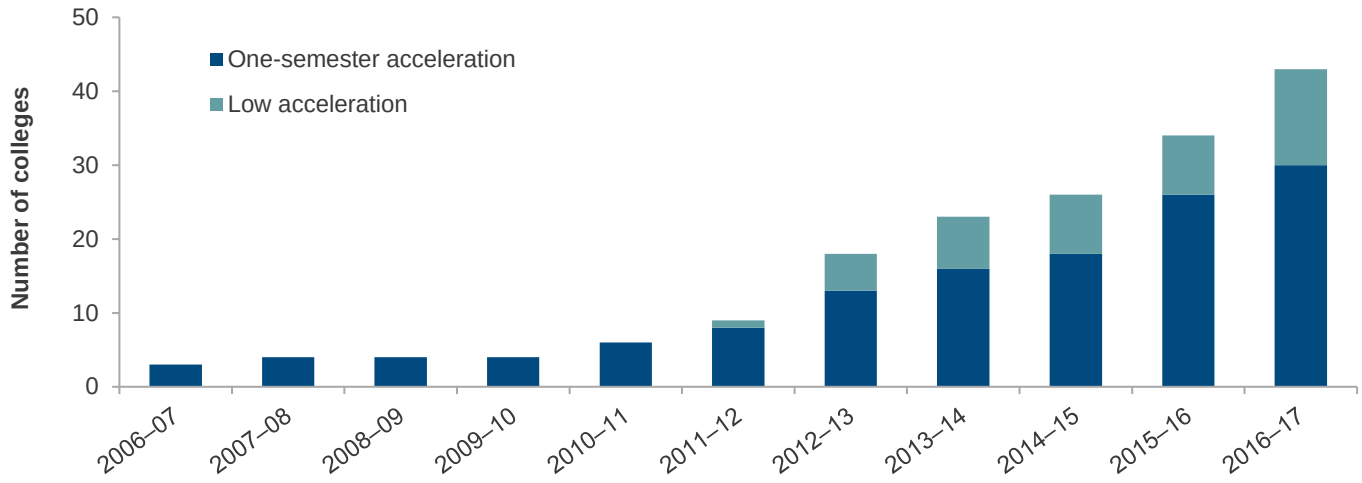
After realizing that multilevel developmental English sequences were leading to student attrition and low rates of completion in college-level English courses, an increasing number of colleges have begun offering accelerated pathways. Under one-semester acceleration, all students placed into developmental English are given the opportunity to enroll in college composition after only one redesigned and highly intensive developmental English course—thereby compressing the developmental English pathway into a single course. Under the related "low acceleration" model, students can enroll in the accelerated course only after completing a prerequisite (a developmental reading, writing, or IRW course). Pedagogical changes often accompany these reforms, as accelerated courses typically integrate instruction in reading, writing, and critical thinking.[14] Faculty who support accelerated pathways strongly believe that reducing the number of exit points is one of the major drivers of improved outcomes. Given that students traditionally underrepresented in higher education are disproportionately placed into lower levels of developmental English, proponents of this approach also believe it can help address achievement gaps.

Our research identified 30 colleges that offered one-semester accelerated courses in academic year 2016–17 (Figure 4). These courses served about 15,600 first-time developmental enrollees. Even though this only represents 9.4 percent of all first-time developmental enrollees, enrollment growth has been substantial during the last few years. Between academic years 2014–15 and 2016–17, enrollment more than doubled as a dozen additional colleges implemented this reform (Figure 5).[15]

In addition, 13 colleges offer low-acceleration courses. An additional 5,500 first-time developmental enrollees took those courses (or 3.3% of all first-time developmental English enrollees) in 2016–17. Most (69%) of these students were able to pass out of the prerequisite course through the assessment and placement process. Therefore, in practice most students in colleges offering low acceleration end up taking only one semester of remedial coursework. Anecdotal evidence suggests that college and departmental politics are oftentimes the reason why these courses are not open access.

FIGURE 4

More and more community colleges have started to offer accelerated courses



SOURCE: Authors' calculations based on COMIS data and scan of 2016–17 college catalogs.

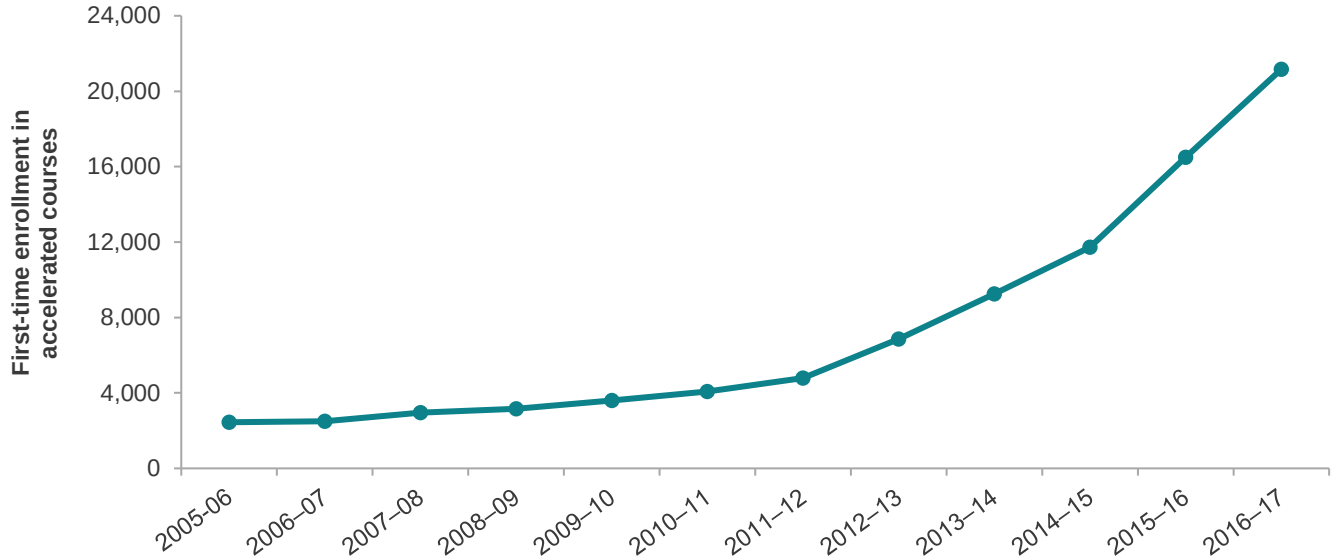
[14] While most accelerated courses are also IRW, this is not always the case. One out of eleven colleges we spoke to did not consider their accelerated course to be integrated but rather strictly a composition course, with no specified reading learning objectives.

[15] We identified at least five more colleges that started offering one-semester accelerated courses during fall 2017.

There are marked differences across colleges in the share of students affected by this reform. At 13 of the 30 colleges offering one-semester acceleration, less than 25 percent of first-time developmental English enrollees take the one-semester accelerated course. In contrast, at eight colleges, 75 percent or more of first-time developmental English enrollees take one-semester acceleration. Most of these colleges have continued to offer multilevel developmental sequences. Faculty shared that continuing to offer a lengthier sequence is important because of their perceptions that "not all students benefit from acceleration" and that "some need a slower pace." Some faculty believe that students with disabilities and English Learners, for example, may benefit from having more time to acquire the reading and writing skills needed to be successful in college composition.

FIGURE 5

Community colleges have seen rapid enrollment growth in accelerated courses



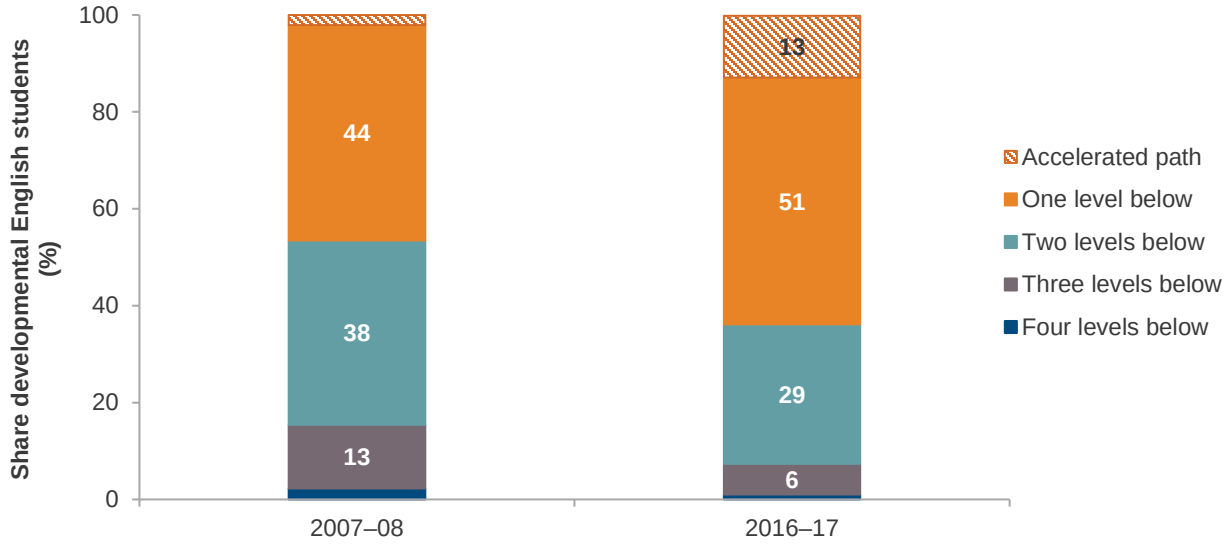
SOURCE: Authors' calculations based on COMIS data.

NOTE: Includes both one-semester acceleration and low acceleration. Between 2006–07 and 2016–17 the share of developmental education students in accelerated courses increased from 2 percent to 13 percent.

Because more colleges have started to offer one-semester accelerated courses—and some have begun offering these courses at scale—the distribution of enrollment in developmental English looks very different today than it did 10 years ago. As shown in Figure 6, the share of developmental English students who started in a course one level below college composition—whether in an accelerated pathway or not—has increased from 46 percent to 64 percent. Accordingly, the share of first-time developmental English students starting two or more levels below college level has declined significantly, from 54 percent to 36 percent. Reducing the number of exit points that students must face before college composition increases the likelihood that they will successfully take and complete college-level English.

FIGURE 6

More developmental English students are starting one level below college composition than before



SOURCE: Authors' calculations based on COMIS data and scan of 2016–17 college catalogs.

NOTE: The accelerated pathway includes one-semester acceleration and low acceleration.

As one would expect, there is a significant amount of overlap in the approaches used for IRW and one-semester acceleration (see text box on the following page). As with IRW, faculty teaching in the accelerated English pathway frequently reported using CAP's instructional cycle to guide the integration of reading and writing, and also cited using CAP's five design principles (Hern 2016; Hern and Snell 2013). Faculty enthusiastically spoke about how these principles work together to support student success in accelerated courses. Backward design, for instance, addresses the misalignment between traditional remediation and college-level coursework by identifying the skills and knowledge most central to success in the subsequent college-level course and designing the preparatory experience to focus directly on those outcomes (Hern and Snell 2013). Several faculty voiced that backward design creates a classroom environment where "students feel respected" because they are being challenged and provided an opportunity to practice the skills they will need in college composition. In essence, backward design makes the course "feel like college, not basic skills."

The Chabot College Model

Although accelerated courses have gained popularity in the past few years, Chabot College has been offering an open-access one-semester acceleration pathway (English 102) for over 20 years. The college has also offered a separate two-level integrated reading and writing (IRW) sequence (English 101A/101B) since the early 1990s. Both pathways use curricular and pedagogical approaches outlined by the English Department's instructional philosophy, which emphasizes the integration of reading, writing, and critical thinking. Students who do not place into college composition (English 1A) have the option to enroll in either the one-term or two-term developmental English pathway. Over time, the number of accelerated courses has increased, and now the ratio of offerings is three accelerated courses to one two-level IRW course sequence. Below we highlight some of the main features of each pathway.

Two-level Integrated Reading and Writing pathway:

- Students are able to enroll in college composition in their third semester.
- There are four exit points on the way to college composition—complete 101A, enroll in 101B, complete 101B, enroll in 1A.
- The course curriculum and pedagogy are similar to 102, but lessons are delivered at a slower pace.

One-semester accelerated pathway:

- Students are able to enroll in college composition in their second semester.
- There are two exit points en route to college composition—complete 102 and enroll in 1A.
- The course curriculum and pedagogy are similar to those of 101A/B, but lessons are delivered at an accelerated pace.
- This option was originally offered as part of a learning community.

Additionally, prior research has found that enrollment in Chabot College's one-semester accelerated pathway, as opposed to the two-level IRW pathway, is associated with positive short- and long-term outcomes, including enrollment and completion of college composition, more credits completed, graduation, and transfer (Edgecombe et al. 2014).

As was the case for IRW courses, faculty reported that the thematic approach, culturally responsive reading and writing assignments, and collaborative group activities were helpful in keeping students engaged with the class and addressing achievement gaps for students of color. Furthermore, faculty highlighted the importance of paying attention to the affective learning domain, especially for students who may feel anxiety about being in an accelerated course or who may question belonging in college because they are in a developmental course.[16] One-semester acceleration courses often include modules that focus on "how to be a college student," introducing students to concepts like "grit" and "growth mindset," which encourage hard work and resilience rather than innate ability. Faculty shared that these modules are often incorporated into the first unit with relevant readings; these readings then lead to a writing assignment on the students' own experiences with learning and motivation. Faculty believed that supporting the affective learning domain in this way is particularly helpful to those who have been historically underrepresented in higher education.

However, it is important to note that colleges approached the planning and implementation of one-semester accelerated courses in different ways. While most colleges developed their accelerated course with CAP support, others developed their own accelerated course or worked with another professional development group known as

[16] There is also a growing body of evidence suggesting the integration of these units helps students develop the skills they need, both in the classroom and in other spaces in college and beyond (Dweck 2006; Dweck, Walton, and Cohen 2014).

Acceleration in Context.[17] Additionally, while most colleges we spoke to described following the design principles and pedagogy for integrated reading and writing promoted by the California Acceleration Project, one college noted that its course was strictly a composition course and had no specific learning objectives related to reading. While all colleges reported benefiting from professional learning and sharing opportunities in their departments, the majority of faculty reported that CAP training activities helped the most. Faculty who participated in CAP training learned not only how to develop a course based on the five design principles, but also how to talk to campus stakeholders about acceleration in order to encourage faculty members to rethink their teaching and to get more buy-in.

As with the integrated pathways, students commonly learn about the one-semester accelerated pathway from counselors, during assessment and orientation activities, through the course schedule, and by word of mouth. Faculty perceived that a primary reason students choose to enroll in one-semester acceleration is so that they can complete the developmental English requirement in less time and save money. They also reported that enrolled students tend to like the thematic approach, culturally responsive reading and writing assignments, and collaborative group activities. However, given the accelerated pace, some faculty also perceived that the workload makes the course too difficult and this may create anxiety in students; paying attention to affective learning issues could help lessen these concerns.

Co-Requisite Remediation

In recent years, a new reform known as co-requisite remediation has gained popularity nationwide. This approach, also known as mainstreaming, allows students who would otherwise be deemed underprepared to enroll in college composition with concurrent remedial support, such as a supplemental reading/writing lab. Unlike IRW, one-semester, and low-acceleration pathways, this approach does not require students to complete any separate developmental English courses, effectively eliminating all exit points en route to college composition (see Figure 3 above).

In California, community colleges are just beginning to implement this reform, with only eight colleges (Cuyamaca, Fullerton, Porterville, Mira Costa, Sacramento City, San Diego Mesa, Skyline, and Solano Colleges) offering co-requisite remediation at a low scale in academic year 2016–17. Combined enrollment in co-requisite remediation at these colleges reached 2,500 students. Six of the eight colleges require that students deemed underprepared enroll in a two-unit support lab concurrently with college composition. At Skyline and Fullerton Colleges, students who do not meet placement criteria for the standard, three-unit college English course can enroll in a five-unit version of the course. Seven additional colleges started offering co-requisite remediation in 2017–18, and there are at least four colleges scheduled to do so in summer/fall 2018.

One of the earliest co-requisite models was implemented in fall 2007 at the Community College of Baltimore County in Maryland. This approach, known as the Accelerated Learning Program (ALP), was developed in an effort to improve completion of college English among students deemed underprepared. Under the ALP model, students who place in the highest level of developmental English have the option to be “mainstreamed” into college English while they are concurrently enrolled in a three-credit companion ALP support course that is taught by the same instructor and that meets immediately after the college English course. The companion support course is intended to provide students with an opportunity to develop the skills necessary to be successful in college composition (Accelerated Learning Program 2017).

[17] Acceleration in Context (AIC) is a statewide faculty-led movement that promotes acceleration through structural and pedagogical changes. Like CAP, AIC efforts originated with faculty at Chabot College. AIC’s conceptual framework includes seven core areas: capacity, love, voices, design, navigation, practices, and spaces. See deWit and McFarland (2010) and Morse and deWit (2013) for more details on the AIC framework.

Early research has consistently found positive impacts on college English completion for students participating in co-requisite courses (Cho et al. 2012; Jaggars et al. 2015; Jenkins et al. 2010). The most recent quantitative study found that ALP students were 28 percentage points more likely to complete college-level English within three years (Jaggars et al. 2015). Research has also found that low-income students benefit from ALP. However, there is little evidence that the gap in completion rates between African American and white students has been narrowed or eliminated (Cho et al. 2012). More recent descriptive evidence on implementing ALP at four community colleges in Arkansas, Michigan, and New Jersey also found promising early outcomes—with all colleges experiencing significant gains in success in college English among ALP students, compared to students who took the traditional highest-level developmental education course (Coleman 2015). Descriptive evidence from Tennessee also suggests that when the state scaled co-requisite writing to all colleges and universities in fall 2015, the rate at which students in the co-requisite model completed college-level English within one year nearly doubled within one semester to 58.7 percent, compared to 30.9 percent when students had to take a prerequisite in writing (Denley 2016).

Supported in part by these promising results, the use of co-requisites is being touted as a "game changer" by Complete College America, an organization promoting reforms to improve college completion rates across the country (Complete College America 2016). In California, we expect the number of colleges offering this reform to grow significantly over the next few years—partly due to the funding provided by the Basic Skills and Student Outcomes Transformation (BSSOT) grants and the implementation of AB 705. Indeed, in our interviews, faculty were very enthusiastic about co-requisites. Encouraged by early data on completion rates in college composition, some faculty even spoke about eliminating stand-alone developmental education altogether and just offering co-requisite English courses. While the early evidence on co-requisite remediation is indeed promising, more research is needed to explore whether the impact of co-requisites persists over a longer period of time and whether this approach helps to address equity gaps.[18]

Evidence from other states shows that co-requisite models produce larger gains than what we observe with one-semester acceleration.[19] Early results in California are equally promising, with students in co-requisite sections completing college composition at much higher rates than those who started in developmental education (and notably higher than those in one-semester acceleration). At five California community colleges, students in co-requisite courses completed college composition at rates ranging from 63 percent to 85 percent, 1.75 to 5 times higher than one-year rates of college composition for students who started in remediation (Henson, Hern, and Snell 2017).

Assessing Student Outcomes in Accelerated Courses

In the previous section we described three ways in which colleges are reforming their developmental English pathways. In this section we evaluate the effectiveness of one-semester acceleration relative to multilevel developmental English sequences.[20] We focus on one-semester acceleration because many colleges are heading in this direction, with enrollment in these courses rapidly increasing. Co-requisite remediation is another direction

[18] Specifically, more research is needed on how students who took co-requisite remediation perform in advanced composition, in other classes that require writing, and once they transfer.

[19] For example, in Tennessee a randomized pilot study found that students who took college composition with a co-requisite (and who would have otherwise been placed into developmental English) were twice as likely to pass college composition as those who took a pre-requisite course before moving on to college composition (67% versus 31%). Strong gains were observed for students with low as well as high ACT scores. Subsequent full implementation of the co-requisite model in Tennessee finds similarly impressive results, with 62 percent of students in the 2015–16 full-implementation cohort completing college composition, compared to 31 percent of students in the 2012–13 pre-requisite cohort (see reports available from the College System of Tennessee, n.d.).

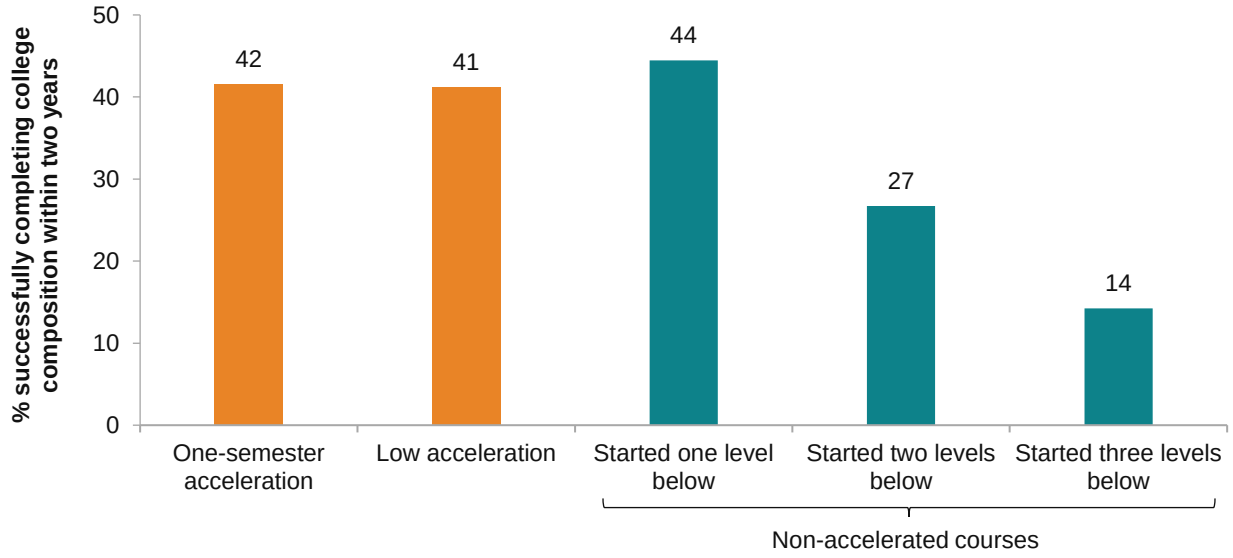
[20] Here, multilevel developmental English sequences include traditional, writing-only, mixed, and IRW sequences.

that California community colleges are exploring, but at this stage there is not enough data to support a rigorous evaluation of this model.

Most students who take developmental English courses do not go on to complete college composition within two years. As expected, students who start lower in the developmental sequence have poorer outcomes. In contrast, we find that students who take one-semester acceleration are just as likely to pass a college composition course as students who first enroll in a non-accelerated course one level below college level; in addition, they are substantially more likely to pass college composition than students who start in a non-accelerated course two or three levels below college level (Figure 7). Findings are similar for students in low-acceleration courses.[21] Please note that these results do not take into account students' prior academic achievement—it could be that students enrolling in accelerated courses are better academically prepared than students taking traditional pathways. However, since most accelerated courses are open access (i.e., students who would otherwise start two or more levels below college composition can enroll), these results are encouraging.[22]

FIGURE 7

Students in accelerated courses have relatively high throughput rates



SOURCE: Authors' calculations based on scan of college catalogs and COMIS data.

NOTE: Throughput rates, 2015–16 first-time developmental English enrollees. Students who start four levels below college level comprise a very low share of developmental English students (see Figure 6) and are omitted from this figure.

Despite these promising results for accelerated courses, less than half of developmental education students in English complete a college composition course within two years, compared to 77 percent of students who never took a developmental English course. Some students do not progress because they fail one or more developmental English courses, others pass the developmental sequence but do not enroll in college composition, and some enroll in but fail their college composition course (Figure 8). These obstacles to progression vary across developmental sequences. For example, among students in acceleration and for other students who start the sequence just one level below college level, the primary exit point is failing the developmental education course.

[21] We are not able to determine the number of students who would have enrolled in the accelerated course but did not complete the prerequisite.

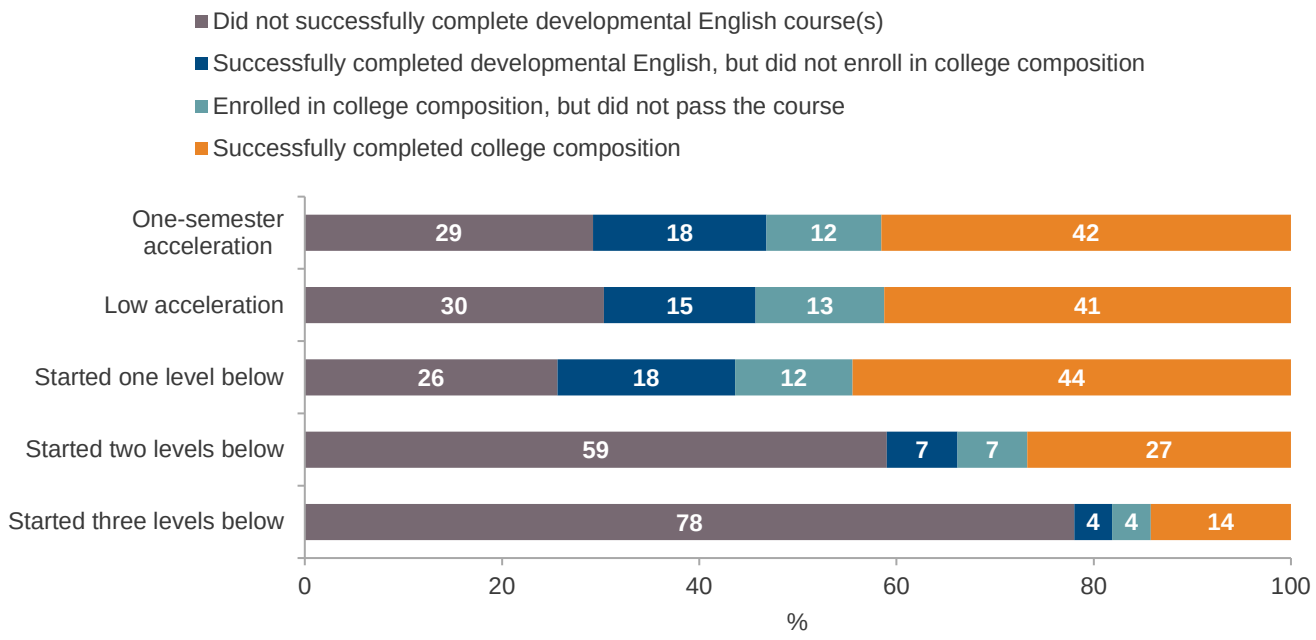
[22] On the one hand, students in accelerated courses might be better prepared and more motivated than students who opt for the two-level sequence. On the other hand, accelerated courses can also include students who would otherwise have started three or more levels below college level.

However, about one in five pass the course but never enroll in college composition. The large majority of students who start two or more levels below college-level English do not complete the developmental English sequence.

We also observe wide variation in student outcomes across colleges. Among 21 colleges that had at least 200 students enrolled in one-semester acceleration, the share of developmental English students successfully completing college composition (i.e., the throughput rate) varied from 29 percent to 57 percent. This variation is in part driven by differences in enrollment rates in college composition (from 38% of accelerated students at one college to 66% at the highest-performing college).

FIGURE 8

Most developmental education students do not complete college composition



SOURCE: Authors' analyses based on COMIS data.

NOTE: Based on two-year outcomes for 2015–16 first-time developmental English enrollees. Students who start four levels below college level comprise a very low share of developmental English students (see Figure 6) and are omitted from this figure.

Not only does one-semester acceleration reduce the amount of time that students spend in remediation, our findings suggest these students are adequately prepared once they enroll in college composition. We find that among students who stay in college composition for the entire course, students who took one-semester acceleration were as likely to pass the college composition course as their peers who took a multilevel developmental English sequence. Specifically, the course success rate in college composition is 80 percent among students who started in one-semester acceleration and 79 percent among students who started in a non-accelerated developmental English course.[23] Again, the variation across colleges is considerable, with course success rates ranging from about 70 to 90 percent among students who started in one-semester acceleration.

Finally, by examining student outcomes at the five colleges that have significantly increased the scale of their accelerated offerings, we are able to consider whether the strong improvements in student outcomes might dissipate as more and more students take accelerated courses. These five colleges more than doubled the share

[23] This calculation does not include students who withdrew from the course.

of developmental education students in one-semester accelerated courses between 2015–16 and 2016–17. We find that course success rates in both the one-semester accelerated course and in the subsequent college composition course changed little even as these colleges scaled up reforms. Specifically, the share of students passing the one-semester accelerated course increased at four of the colleges (with gains varying between 1 and 9 percentage points) and declined 2 percentage points at one college. Among those students who moved on to college composition, course success rates increased for all five colleges.

A critical question is whether students who start in one-semester acceleration have better outcomes than those who start in a multilevel developmental English sequence because they are better students or because of the change in the developmental pathway. Since we do not have high school records or assessment information, we cannot directly assess whether prior academic ability drives our results. However, we can control for differences in age, gender, ethnicity, citizenship, income, disability status, English Learner status, college of attendance, and term of attendance between students who enroll in accelerated courses versus our comparison group, namely those who start developmental English two levels below college composition. We selected this comparison group because it is the most common starting point for first-time enrollment in developmental English.

Once we control for the above differences in student characteristics, we find that students who took one-semester acceleration were 30 percent more likely to enroll in a college composition course and were 21 percent more likely to successfully complete college composition than otherwise similar students. They also took 20 percent more transferable units than their peers who started two levels below college composition. Coupled with our earlier finding that students who start developmental education in one-semester accelerated courses are about as likely to pass college composition as students who start in a multilevel developmental English sequence, these results provide further evidence that acceleration itself leads to improved outcomes for students. And although we cannot fully control for prior academic record, we have a rich set of demographic, economic, and educational characteristics that give us confidence that our findings are not driven by observable differences between accelerated and non-accelerated students.

Equity Gaps Remain Large

Funding from the state via the student equity grants has allowed some colleges to more effectively assess gaps and establish practices and policies to reduce them.[24] Developmental education is a critical part of this effort. Our previous research shows that the racial and ethnic distribution of students placed into remediation looks quite different from the distribution of students deemed college ready (Cuellar Mejia, Rodriguez, and Johnson 2016). Notably, the proportions of Latino, African American, and low-income students are higher among those enrolled in developmental education.

However, we do not observe large differences in the racial and ethnic distribution of first-time enrollees in accelerated versus non-accelerated developmental English pathways (Technical Appendix Figure B1). In other words, underrepresented minority students are as likely to be enrolled in accelerated pathways as their peers. For example, even though African American students are slightly overrepresented among the group of students who started three or more levels below college composition, these students are not being left out of accelerated courses. African American students represent 8 percent of all first-time enrollees in developmental English and 10 percent among those enrolled in one-semester acceleration.

Unfortunately, the story is different when we look at throughput rates, or completion rates of college composition within two years. Rates of successfully completing a college composition course do vary widely by student

[24] Student equity funding was first provided to colleges during the 2014–15 academic year to help improve access and outcomes for disadvantaged students. For a history and description of student equity efforts at the CCC system, see the "The Student Equity Fact Sheet" (California Community Colleges Chancellor's Office, n.d.).

characteristics. Across all types of developmental English sequences, equity gaps are evident. African Americans have the lowest throughput rates, while Asians have the highest (Table 1). Thirty-one percent of African Americans who take one-semester acceleration go on to complete college composition, compared to 17 percent of those who start two levels below college level. Yet the throughput rates for Asian Americans are 52 percent among those who take one-semester acceleration and 40 percent among those who start two levels below.

TABLE 1

Equity gaps in completing college composition remain, regardless of students' starting point

	One-semester acceleration (%)	Low acceleration (%)	Started one level below (%)	Started two levels below (%)	Started three levels below (%)
African American	31	36	32	17	8
Asian American	52	57	57	40	23
Latino	40	39	43	25	14
White	45	43	47	30	16
Two or more races	36	39	40	22	12
Female	46	44	48	29	16
Male	36	38	41	24	12
Low-income student	40	40	44	26	14
Not low-income student	45	44	45	28	14
Overall	42	41	44	27	14

SOURCE: Authors' analyses based on COMIS data.

NOTE: Table shows throughput rates for 2015–16 first-time developmental English enrollees. Students who start four levels below college level comprise a very low share of developmental English students (see Figure 6) and are omitted from this table.

The encouraging news is that across all groups, students who start in accelerated courses have a far greater likelihood of eventually completing college composition than students who start two or more levels below college composition. Moreover, underrepresented groups see gains at least as large as those of their peers. For example, African Americans in one-semester acceleration are 14 percentage points more likely—and Latinos are 15 percentage points more likely—to complete college composition than those who start two levels below, whereas Asians in one-semester acceleration are only 12 percentage points more likely to complete college composition than those who start two levels below. Among low-income students and by gender, the gaps between students in accelerated and non-accelerated courses are slightly wider.

Barriers to Scaling Reforms

Despite the significant improvements in outcomes for students who take accelerated coursework, our research finds that only a few colleges are offering the reform pathways at scale. Faculty shared that there are a variety of policy and practical barriers that limit colleges' ability to scale up successful reforms. The first is resistance that

emerges within the department to increasing accelerated course offerings. Faculty shared that doubts about acceleration often stem from the belief that "acceleration is not for everyone" and that offering a slower-paced sequence supports the success of students who need more time to acquire the English skills necessary to be successful in freshman composition, especially students with disabilities and English Learners.[25] Faculty noted that some colleagues are also "skeptical about the data" showing that acceleration helps all student groups.

Another barrier concerns fears of lost jobs or lost funding if the number of developmental reading or writing sections is reduced; this is an especially significant barrier for attempts to integrate reading and writing courses. Faculty noted that it is important to address these fears by providing professional development and opportunities for faculty to teach a greater range of courses, including reading, writing, and transfer-level courses. We also learned that departments may hesitate to increase the number of reform courses because they fear losing funding if the number of developmental sections is reduced. However, reductions in developmental education enrollment could be offset by increased retention and enrollment in college-level courses. One faculty member shared that in the long run the college could actually generate more funding by retaining more students, which she believes the reform pathway does.

Despite these challenges, most faculty viewed new legislation as an opportunity to scale up reforms. Faculty voiced that AB 705 provides colleges with the leverage they need to begin to reduce the prevalence of lengthy multilevel developmental sequences. Some faculty were especially enthusiastic about the opportunity to phase developmental education out altogether and phase in co-requisites for all students. Still, other faculty members questioned the appropriateness of AB 705 because they feel that not all students are ready or able to get through the developmental English sequence in one year. One faculty member shared that colleagues were actually hoping AB 705 would "go away," just like the common assessment did.[26]

Finally, for colleges choosing to implement or scale reforms, faculty overwhelmingly noted the critical importance of professional development. They highlighted the need to ensure that faculty do not rely on "remedial pedagogy" to teach developmental courses. Also, as noted by one faculty member, if AB 705 is implemented well, more students will directly access college-level English. This shift will require additional professional development to prepare teachers to support diverse learners and has implications for scheduling and staffing more freshman composition courses.

[25] While we do not disaggregate the data by disability and English Learner status, to account for the role these factors may play in the outcomes we examine, our regression analyses controls for whether a student was ever reported to have at least one primary disability and whether they ever enrolled in an English as a Second Language course (see Technical Appendix Table B1 for more information on these variables).

[26] On October 24, 2017, Chancellor Eloy Ortiz Oakley issued a memo announcing the end of the project that aimed to create a systemwide common placement test (known as CCCAssess) for math, English, and ESL. This decision came about in part due to repeated delays and challenges with implementation and mounting evidence suggesting that standardized exams are not effective in accurately assessing and placing students (California Community Colleges Chancellor's Office 2017). The common assessment system project originally came about via legislative proposal AB 743 (Block), which was approved by the governor on October 8, 2011 (California Legislative Information 2011).

Conclusions and Recommendations

The outlook for successfully reforming developmental education at California's community colleges is bright. The legislature, the Chancellor's Office, college officials, faculty, and the philanthropic community are all working together to achieve better student outcomes. Recently passed legislation (AB 705) will improve the accuracy of how students are assessed and placed into developmental education, which will likely increase the number of students who can enroll directly into college-level coursework. The Chancellor's Office has issued an ambitious set of new goals in its *Vision for Success* that, if realized, will dramatically improve completion rates in college-level courses and increase the number of transfer-eligible students (California Community Colleges Chancellor's Office n.d.). And in our discussions with college faculty and officials, we observed thoughtful educators working hard to more accurately place students and to improve developmental English courses and student outcomes.

Some of these reforms are already showing results. We find that one-semester acceleration not only dramatically reduces the amount of time students spend in remediation but also prepares students adequately for college composition. Specifically, students in one-semester acceleration passed college composition at comparable rates as students who started developmental education just one level below college composition. They also performed better than students who started developmental education two or more levels below college composition—adding to the body of evidence that supports this strategy for improving early academic outcomes. Nevertheless, most developmental English students—whether they took accelerated courses or not—do not go on to complete college-level English. It will be necessary to continue implementing reforms to assessment and placement, while making sure that successful reforms to course pathways reach more students. We offer the following recommendations to encourage further progress:

New assessment and placement policies should be evidence-based and consistent across the system. AB 705 will lead to systemwide reforms and requires the use of high school records in assessing and placing students. If colleges are able to more accurately assess students' abilities, goals, and non-academic obstacles to success, students are more likely to be placed in the courses that best suit their needs and offered appropriate supports. The Chancellor's Office has established an implementation team and time line for providing guidance to all colleges as they seek to implement AB 705, and the Board of Governors will develop a list of approved assessment instruments. The implementation team should seek to create consistency across colleges in assessment and placement, focusing on evidence-based metrics to maximize successful completion of college composition within one year.

For students who still need remediation in English, colleges should expand one-semester acceleration. Doing so could lead to sharp gains in completion rates of college composition, but in 2016–17, only a small number of colleges implemented this reform at scale. The encouraging news is that enrollment in accelerated courses is increasing faster than in any other type of developmental English course, and the positive effect of acceleration remains strong at colleges that have gone to scale. Even so, the majority of students in one-semester acceleration do not successfully complete college composition, and outcomes vary across colleges. Efforts to establish and implement best practices in one-semester acceleration, including curricular and pedagogical strategies, should be promoted systemwide.

Colleges should look for additional ways to improve pathways for developmental English students. One promising approach is the co-requisite model, in which students enroll directly in college-level English while receiving concurrent supports. Despite encouraging early results and faculty enthusiasm, only eight colleges in California had implemented a co-requisite approach by 2016–17. It remains to be seen if and when co-requisite

approaches will be fully scaled in California. Another promising approach to improving student outcomes is the Guided Pathways Initiative, intended to restructure course sequencing and student support services toward a more student-centric model. Developmental education reform is a key part of this transformation, and Governor Brown earmarked $150 million for the initiative, along with pilot funding for 20 colleges, in his recent budget proposal.

Colleges should keep multi-course sequences in English only if these approaches are shown to benefit students. Currently, most students in developmental English are required to take at least two courses before college composition. Even though research finds that shorter sequences improve student outcomes, the number of students who start in multi-course sequences remains far larger than the number of those in accelerated courses. Our findings—that improved outcomes hold across ethnic, gender, and income groups—support the continued expansion of accelerated pathways. Nevertheless, some faculty members in our interviews noted that certain student groups—particularly English Learners and students with disabilities—may benefit from longer sequences. More research is needed to determine if these or other student groups truly benefit from longer developmental sequences.

Colleges should emphasize reducing equity gaps. Some colleges seem to have a better track record than others at reducing long-standing achievement gaps for underrepresented student groups. Faculty reported that curricular and pedagogical strategies, such as a thematic approach, culturally responsive teaching, and collaborative group activities are helpful in keeping students engaged with the class and addressing achievement gaps. Additional research could shed light on how those colleges reduced gaps and how to bring those practices to scale. Funding from the state via student equity grants can help support these efforts. While these reforms are promising, there is a lot of room for improvement. In particular, more research is needed to look at longer-term student outcomes, including earning an associate degree or certificate, or transferring to a four-year university.

As California's community colleges adopt and scale up wide-ranging reforms to developmental education, our results suggest that shortening English sequences—and in particular promoting one-semester acceleration—could improve outcomes for many students. However, additional research is necessary to guide implementation and to ensure that reforms help narrow equity gaps. Continued improvements to developmental education will allow many more thousands of students in California to reach their academic goals and ultimately succeed in the labor market.

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