Most students (77%) in the California Community Colleges (CCC) state they intend to earn a degree, transfer to a bachelor's degree program, or both, but four years after enrolling, only 23 percent successfully do so, including those who completed system-approved certificates. One of the most significant obstacles to transfer is completing transfer-level courses in English and math.

Until 2019, students were often required to first complete one or more developmental education (remedial) courses in these subjects, and many never finished (see “What is Developmental Education?” on p. 2). Students could spend years in sequences of developmental education courses, using limited financial aid awards and personal resources without earning degree- and transfer-applicable credits and delaying enrollment in transfer-level courses—if they did not drop out first.

In addition, a series of research studies questioned the accuracy of test-based placement methods, pointing to the annual costs to students and taxpayers, which totaled hundreds of millions of dollars, and casting doubt on the efficacy of developmental education as preparation for transfer-level coursework.

To increase the proportion of community college students completing transfer-level English and math courses and moving along the path to degree completion in California, lawmakers and system leaders have taken a series of progressively focused actions encouraging colleges to place most incoming students directly into transfer-level courses in these subjects instead of developmental courses below transfer level (see “Developmental Education Legislative Landmarks” on p. 3). Many colleges responded by significantly increasing the proportion of English and math courses offered at the transfer level, often pairing them with noncredit or low-credit cocurricular or corequisite support classes that provide instruction and tutoring to students who need extra assistance.

Overall, the share of entering students completing transfer-level English and math courses has grown substantially in the years following these reforms.
What is Developmental Education?

Developmental education—also known as remedial education, basic skills, or foundational skills—refers to courses (generally in English and mathematics) designed to prepare students to complete the coursework needed for associate’s degrees and transfer to bachelor’s degree programs. These courses that count towards degrees are generally referred to as college-level or transfer-level courses. In the California Community Colleges (CCC), instruction in English as a second language is usually considered separate from developmental education.

Until 2019, CCCs typically administered standardized tests to incoming students and assigned those who scored below a specific cutoff to a developmental course one or more levels below transfer level. The majority of students were referred to developmental education. For example, 80 percent of CCC students who started in the 2009–10 academic year were placed in developmental education in English, math, or both. As a result, California lawmakers and college and system leaders adopted policies to improve developmental education placement and instruction methods and to increase students' enrollment in transfer-level English and math courses (see “Developmental Education Legislative Landmarks" on p. 3).

Understanding the Developmental Education Experiences of Adult Learners

Developmental reform efforts have largely focused on placement leveraging students’ high school achievements; however, it is important to assess how older students, who are further from their high school years, have fared under these reforms. In this study, we compare outcomes for adults 25 and older (who constitute over 40% of CCC students) and those for traditional-age students under 25. (Adults make up only 20% of first-time, non-special-admit students enrolled for credit, however, so a smaller proportion may need to take transfer-level courses.)

We find adult students are now about as likely as their younger counterparts to complete transfer-level English courses within a year of first enrolling in such courses, and they are approaching parity in completing transfer-level math courses. However, many adult students never make it as far as their first English or math course. Perhaps as a result, a smaller proportion of adult students overall complete transfer-level English and math courses within a year of first enrolling for credit. We provide details of these findings in the following sections.

Defining the Demographics

- Adult learners or adult students
  Ages 25 and older

- Traditional-age students
  Under 25
Developmental Education Legislative Landmarks

State lawmakers enacted a series of laws regarding developmental education placement, enrollment, and instruction in the California Community Colleges. The following timeline outlines key provisions of these laws, enacted between 1986 and 2022.

**Assembly Bill 3**
Seymour-Campbell Matriculation Act of 1986
Formalized and standardized the developmental education assessment and placement process across the system’s colleges to help students meet their educational goals.10

**Senate Bill 1456**
Required colleges to assess first-time students for college readiness before registration, established student support, and emphasized equity in placement.

**Assembly Bill 1805**
To receive Student Equity and Achievement Program funding, colleges were required to inform students of their right to access transfer-level coursework and to be transparent about their placement policies and results.

**Assembly Bill 1809**
Introduced the Student Centered Funding Formula, which partially based community college funding on students completing transfer-level English and math in their first year.12

**Senate Bill 1143**
Established the Student Success Task Force, whose recommended developmental education reforms were enacted as part of Senate Bill 1456.11

**Assembly Bill 705**
Required colleges “maximize the probability that a student will enter and complete transfer-level work in English and math within one year” and prioritize high school achievement in course placement. Prohibited developmental course requirements that lengthen time to degree without strong evidence of student need.

**Assembly Bill 1705**
Clarified college responsibilities for student course placement, including that colleges must place and enroll most students in transfer-level classes and provide access to student support. Clarified that the one-year completion window starts at the enrollment of transfer-level courses, required use of multiple measures to determine placement, restricted practices that would lead to unnecessary developmental courses, and enhanced CCC Chancellor’s Office authority for enforcement.
Adult Learners and Traditional-Age Students Achieve Similar Success in Transfer-Level English; Gap Closing in Math

In the last decade, similar shares of both adult students and traditional-age students have completed transfer-level English courses within one year of first enrolling in the subject, with the adult learners’ completion rate rising from 42 percent in 2012–13 to 67 percent in 2021–22 and the rate for traditional-age students rising from 48 percent to 66 percent (figure 1). During this period, adult students initially trailed traditional-age students in completing transfer-level English courses by six percentage points and ended up leading by one percentage point.

For math courses, the adults’ completion rate increased from 19 percent in 2012–13 to 50 percent in 2021–22.

The traditional-age students’ transfer-level math course completion rate also improved over the same period, from 28 percent to 55 percent. So, while adults still lag behind traditional-age students in math, they have narrowed the gap from nine percentage points to five percentage points over the past decade.

In short, adult students are now about as likely as traditional-age students to complete transfer-level English courses, though not as likely to complete transfer-level math courses, within one year of attempting their first course in the subject.13

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**Figure 1: Among students who enrolled in any English or math course, adult students complete transfer-level English courses at similar rates as traditional-age students but are still catching up in math**

Percentage of students who completed transfer-level English and math courses within one year of initially enrolling in the subject at any level (by age group, 2012–13 through 2021–22)

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional-age Students</td>
<td><img src="img1.png" alt="Graph" /></td>
<td><img src="img2.png" alt="Graph" /></td>
</tr>
<tr>
<td>Adult Students</td>
<td><img src="img3.png" alt="Graph" /></td>
<td><img src="img4.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

**NOTE:** We refer to adult students as students ages 25 and older and traditional-age students as those under 25. Results are based on data for all full-time and part-time students who first enrolled in any level of English or math course in the corresponding academic year, regardless of what year they first enrolled in community college. Depending on the year, results for English courses are based on 73,544–157,220 traditional-age students and 15,129–69,428 adult students, and results for math courses are based on 71,823–136,806 traditional-age students and 14,371–70,108 adult students.

**SOURCE:** California Community Colleges Chancellor’s Office. Transfer-Level Gateway Completion Dashboard, accessed August 21, 2023.
Completion of Transfer-Level Courses in the First Year Is Increasing for All Students, but Adults Increasingly Lag Behind

Completion of both transfer-level English and math courses in the first year of enrollment is included in the CCC Student Success Metrics Dashboard and the Student Centered Funding Formula as a student success strategy (see “What is Developmental Education?” on p. 2, and “Developmental Education Legislative Landmarks” on p. 3, respectively). As depicted in figure 2, first-year completion rates of both transfer-level math and English courses increased for both traditional-age students and adult students from 2011–12 through 2020–21. This increase was followed by a dip for each group and subject in 2021–22.

In the most recent year of data available, a larger percentage of traditional-age first-year students completed transfer-level English courses in 2021–22 (42%) compared with adult students (12%), a difference of 31 percentage points (calculated using unrounded values). This difference has grown since 2011–12, when 18 percent of traditional-age first-year students and 4 percent of adult first-year students completed transfer-level English courses (a 14 percentage point difference).

First-year completion of transfer-level math courses follows a similar pattern, with both groups’ rates rising and the gap between them growing from eight percentage points in 2011–12 to 21 percentage points in 2021–22.

**Figure 2: A higher proportion of traditional-age students complete transfer-level English and math courses in their first year than do adult students, and the gap is widening**

Completion of transfer-level English and math courses in first year of credit enrollment in district (by age group, 2011–12 through 2021–22)

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional-age Students</th>
<th>Adult Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011–12</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>2013–14</td>
<td>26%</td>
<td>11%</td>
</tr>
<tr>
<td>2015–16</td>
<td>35%</td>
<td>15%</td>
</tr>
<tr>
<td>2017–18</td>
<td>42%</td>
<td>18%</td>
</tr>
<tr>
<td>2019–20</td>
<td>42%</td>
<td>21%</td>
</tr>
<tr>
<td>2021–22</td>
<td>47%</td>
<td>22%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional-age Students</th>
<th>Adult Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011–12</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>2013–14</td>
<td>14%</td>
<td>1%</td>
</tr>
<tr>
<td>2015–16</td>
<td>21%</td>
<td>4%</td>
</tr>
<tr>
<td>2017–18</td>
<td>21%</td>
<td>5%</td>
</tr>
<tr>
<td>2019–20</td>
<td>26%</td>
<td>6%</td>
</tr>
<tr>
<td>2021–22</td>
<td>31%</td>
<td>7%</td>
</tr>
</tbody>
</table>

NOTE: We refer to adult students as students ages 25 and older and traditional-age students as those under 25. Results are based on data for all full-time and part-time first-year students who initially enrolled for credit in a community college district in the corresponding year. Cohorts range in size: 210,359–275,717 for traditional-age students and 48,180–103,514 for adult students, depending on the year.

Policymakers: Laud Success to Date but Monitor to Ensure Equitable Outcomes

Recent reforms ushered in dramatic increases in students of all ages enrolling in and completing transfer-level courses in English and math in the CCC, and legislation taking effect in 2023 holds hope for further gains.\textsuperscript{16} Adults who make it to the starting line of English and math enrollment perform about as well as traditional-age students in completing transfer-level English courses and have narrowed the gap in math. And growing proportions of both adult students and traditional-age students complete transfer-level courses in their first year of enrollment.

However, there is one disparity between adult students and their traditional-age counterparts that asks for more attention: most adult students do not enroll in any level of English or math course in their first year of community college, and the difference in this first-year enrollment between younger and older students is increasing over time. It is not clear if that disparity is a problem to be solved or just a difference in the way older students approach higher education. A smaller percentage of adult students state a goal of transfer or earning a degree compared with traditional-age students,\textsuperscript{17} and students may overstate their educational objectives in these statements of intent.\textsuperscript{18} On the other hand, some argue that colleges play an important role in raising (but sometimes also lowering) students’ educational ambitions.\textsuperscript{19}

California education leaders need further research into disparities across age groups, particularly research covering multiple years of enrollment and exploring whether adults delaying taking transfer-level math and English courses impacts their educational outcomes or reflects different goals. State, college, and system policymakers have a responsibility to understand how reforms impact students differently based on their circumstances and to consider students’ particular needs, making it possible for all students to succeed.

Acknowledgments

This report was made possible through support from the Bill & Melinda Gates Foundation and the College Futures Foundation. Carolina Ayala contributed to the legislative history, with support from the Institute for Education Sciences’ Pathways to the Education Sciences Research Training fellowship program at Sacramento State. We thank Elizabeth Zeiger Friedmann and Michal Kurlaender of Wheelhouse: The Center for Community College Leadership and Research at the University of California, Davis School of Education for analyzing individual-level data to broadly confirm our preliminary analyses. We appreciate the insights of the community college students and faculty who shared their experiences with developmental education and provided context for our results. We thank Kathy Booth, Kathy Reeves Bracco, Erik Cooper, David Drummer, Marisol Cuellar Mejia, Katie Hern, John Hetts, Yang Hu, Valerie Lundy-Wagner, Mojdeh Mehdizadeh, Mallory Newell, Vikash Reddy, Kimberly Rogers, David Salman, Jack Scott, Myra Snell, and members of the AB 705 Coalition for their thoughtful suggestions on earlier versions of this brief and its analyses. All errors are our own.
Data, Methods, and Limitations

The data used in this study were obtained from two dashboards that aggregate individual-level data from the CCC Chancellor’s Office. Data regarding the proportions of students completing transfer-level English and math courses within a year of first enrolling in the respective subjects (figure 1) are from the Transfer-Level Gateway Completion Dashboard. The population consists of all students who enrolled in at least one credit-bearing English or math course. The data span the ten years from 2012–13 through 2021–22. The dashboard measures only the first two attempts to complete each transfer-level course, so it may slightly underestimate the actual completion rate within one 12-month period. For example, students who complete a course during the summer term following two unsuccessful attempts the previous fall and spring semesters— or students who attend the few colleges that use quarter system academic calendars and who complete in their third quarter— would not be counted as having completed.

Data on the proportions of first-year students completing transfer-level English and math courses (figure 2) are from the Student Success Metrics Dashboard. The population is first-year full-time and part-time students who first enrolled for credit in a community college district in the 2011–12 through 2021–22 academic years. Students were included whether or not they enrolled in English or math courses. The outcomes of interest are the proportions of students who completed transfer-level English and math courses in their first year of credit enrollment in community college.

All calculations were performed using unrounded data. Because the results are based on the entire population of students rather than a sample, no standard errors or other measures of variance or statistical significance are reported.

Researchers at Wheelhouse: The Center for Community College Leadership and Research at the University of California, Davis School of Education repeated an earlier version of some of these analyses using individual-level data and found broadly similar results.

The results presented in this brief reflect a limited perspective on student success in transfer-level courses and should not be taken to imply a definitive relationship between students’ age and subsequent outcomes.

Notes


3. Johnson, H., Cuellar Mejia, M., & Rodriguez, O. (2016). Preparing students for success in California’s community colleges. Public Policy Institute of California. https://www.ppic.org/publication/preparing-students-for-success-in-california’s-community-colleges. Transfer-level courses in the CCC are approved for transfer to The California State University or University of California system and may also count toward an associate’s degree. Other community college courses, such as intermediate algebra and vocational courses in career and technical education fields, may apply to an associate’s degree but are not transfer level. See p. 51 of California Community Colleges Chancellor’s Office (CCCCO). (2019). Program and course approval handbook. 7th ed. https://www.asccc.org/sites/default/files/CCCCO_Report_Program_Course_Approval-web-102819.pdf

14. A key difference is that the Transfer-Level Gateway Completion Dashboard measure used in this brief (p. 4) tracks completion for a full year (two semesters, or three quarters, plus summer), whereas the Student Centered Funding Formula provision applies only until the end of the academic year in which the student started. In other words, students who first enroll in winter or spring terms have less than a year for transfer-level English and math course completion to affect their districts’ funding.

13. Among transfer-seeking students, after controlling for other factors, adults who started in a transfer-level math course in fall 2020 were nine percentage points more likely than traditional-age students to successfully complete the class in one term. Cuellar Mejia, M., Rodriguez, O., Johnson, H., & Perez, C. A. (2021). Getting there: How California’s AB 705 is (and is not) transforming community college remediation and what needs to come next. Public Advocates. https://accelerationproject.org/Portals/0/Documents/Still_Getting_There_Final.pdf


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Notes


12. Steenhausen, P. (2022). The 2022–23 budget: Analysis of major CCC proposals. Legislative Analyst’s Office. https://lao.ca.gov/Publications/Report/4531#Student_Centered_Funding_Formula. The legislature has extended the hold harmless provision through at least 2024–25. Under that provision, districts cannot receive less funding than they would have under the previous formula. Additional details can be found at the Student Centered Funding Formula Dashboard and resources page.


14. A key difference is that the Transfer-Level Gateway Completion Dashboard measure used in this brief (p. 4) tracks completion for a full year (two semesters, or three quarters, plus summer), whereas the Student Centered Funding Formula provision applies only until the end of the academic year in which the student started. In other words, students who first enroll in winter or spring terms have less than a year for transfer-level English and math course completion to affect their districts’ funding.
Notes


17. For example, among those who applied to the CCC through a systemwide web portal and enrolled in 2021-22 as non-special-admit students, 119,339 of 256,794 adult applicants (46%) and 255,639 of 392,517 traditional-age applicants (65%) stated a transfer or degree goal. Calculated from California Community Colleges Student Success Metrics Dashboard, metric IDs SM 340SW and SM 340SZ.


