



New Study of the California Acceleration Project

LARGE AND ROBUST GAINS IN STUDENT
COMPLETION OF COLLEGE ENGLISH AND MATH



This evaluation found strong evidence that accelerated curriculum can be developed at multiple college sites in a short period of time with good results, particularly for those accelerated pathways that articulate directly with transfer-level gatekeeper courses.

A NEW STUDY by the Research and Planning Group for California Community Colleges has found that accelerated models of remediation are producing “large and robust” increases in student completion of gatekeeper English and math requirements at community colleges across California. Effective accelerated pathways led to completion gains among all students, regardless of preparation level, socioeconomic status, or demographic group.

The findings are important because remedial course sequences have been identified as a key barrier to college completion. Across California, 70-90 percent of community college students are designated underprepared for college and assigned to remedial courses in English, math, or both. According to the most recent Student Success Scorecard, just 41 percent of these students went on to transfer or complete a certificate or degree within six years statewide, a substantially lower completion rate than among students designated college prepared.

“This study shows that by redesigning remedial curricula, community colleges can produce much better results with underprepared students,” says Linda Collins, Executive Director of LearningWorks, an Oakland-based organization focused on linking research and policy. “We can increase completion without compromising our mission to provide broad access to higher education.”

The RP Group study examined student outcomes at 16 community colleges piloting accelerated remediation models in 2011-12 as part of the California Acceleration Project (CAP), an initiative of the state-funded professional development network 3CSN. The 16 colleges redesigned their curricula to reduce students’ time in remedial courses by one or more semesters as well as better align those courses with college-level requirements. In math, colleges piloted redesigned remedial courses for students intending to take statistics to fulfill their math requirements (i.e. those in non-math-intensive majors). Participating faculty received professional development through a year-long program focused on teaching in accelerated models. At all 16 colleges, the content and rigor of the college-level courses were unchanged - only the remedial preparation was redesigned.

The study focused on student completion of transferable gatekeeper math and English courses among 2,489 students taking accelerated remedial courses (1,836 in English, 653 in math), comparing accelerated students with students in traditional remedial pathways, and following them for either one and a half or two years (depending on student cohort). The study is one of the first to examine whether accelerated approaches that had been successful at individual colleges could be scaled up across multiple institutions.

Using statistical methods to control for any pre-existing differences in student characteristics, the RP Group’s quasi-experimental evaluation found significantly higher completion rates among students in accelerated remediation:

- In English, students’ odds of completing a college-level course were 2.3 times greater in high-impact models of acceleration than students in traditional remediation.
- Students’ odds of completing a college-level math course were 4.5 times greater than students in traditional remediation.

“From an administrative or policy perspective that is concerned with the efficacious use of scarce resources in order to increase college completion, improving English and math sequence completion rates is of great interest,” wrote Craig Hayward and Terrence Willett, the researchers who conducted the study. “From the perspective of a student or a family member, the ability to move quickly and smoothly through the required English and math sequences is a boon.”

The need for remediation reform

Nationwide, most community college students are placed into remedial courses and required to take one or more semesters of non-credit-bearing coursework in reading, writing, and/or mathematics. And though these courses were intended to prepare students for success at the college level, the majority of students placed into remediation do not go on to complete college-level requirements in English and math, rendering them ineligible for key longer-term goals (degree completion, transfer

to a four-year university). Indeed, the lower students start in remedial course sequences, the worse their outcomes.ⁱ

Across California, 99,370 community college students started remedial courses in English in 2010, and 136,768 started remedial courses in math. Among those required to take a three-course remedial sequence in English, 19 percent went on to complete a college-level course in three years. In math, the corresponding figure is just 7 percent. Students of color are particularly impacted within traditional remedial sequences, because they are disproportionately placed into the lowest levels of the curriculum.ⁱⁱ

The RP Group's study adds to a growing body of research showing improved student completion rates in accelerated models of remediation. Some of these studies have relied upon descriptive data, raising questions about whether the differences in accelerated outcomes are due to differences in the type of students enrolling in accelerated and non-accelerated curricula.ⁱⁱⁱ The RP report is one of several recent third-party evaluations that utilize controls for pre-existing differences between accelerated and non-accelerated students and find substantially higher outcomes for accelerated students.^{iv}

Highlights from the study

In a particularly interesting feature of the study, the RP Group examined the impact of acceleration on a variety of student subgroups. The evaluation found significant completion gains for students from all ethnic groups, low-income students, students who had taken ESL courses, students who had not graduated from high school, students with low GPAs, and students with disabilities. Assessing the impact of accelerated remediation by curricular level, they found that in both English and math, students saw significant gains, regardless of whether they were designated one, two, three, or four levels below college. In addition, students in the lowest levels saw the largest relative increases in their completion.

"The implication is that students from an array of skill ranges can be prepared for success in transfer-level English or statistics," wrote Hayward and Willett. "No specific placement level

was associated with negative outcomes, indicating that these accelerated pilots adhered to a 'do no harm' principle."

Another interesting finding from the study: not all models of acceleration are equally effective at boosting completion rates. Participation in CAP required that colleges shorten remedial course sequences by at least a semester, but in English, there was wide variation in how colleges implemented this principle. In some models, termed "high acceleration" by the researchers, students were able to move directly into the college-level course after successfully completing the accelerated semester. These pathways showed "large increases in student completion." In other models ("low acceleration"), students' time in remediation was reduced, but they still faced additional remedial coursework or administrative hurdles before enrolling in the college-level course. The researchers note that the low acceleration models "tended to show little or no acceleration effect."

The accelerated models implemented in CAP have a compelling advantage over other educational interventions designed to improve remedial course outcomes. While many interventions are considered cost-prohibitive to offer at scale, the study found that most CAP colleges did not provide accelerated students with costly wrap-around support like special counseling, tutoring, or financial assistance. Instead, the improved student outcomes were achieved largely through changes to instruction, supported by professional development to participating faculty. This suggests that accelerated remediation may be a highly sustainable strategy, in that it can be scaled up to serve more students without significant additional costs to colleges.

"This evaluation found strong evidence that accelerated curriculum can be developed at multiple college sites in a short period of time with good results, particularly for those accelerated pathways that articulate directly with transfer-level gatekeeper courses," write Hayward and Willett. "And while the scale of these accelerated pathways is currently only small to medium, growth to include a high proportion of eligible students seems quite feasible."



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ENDNOTES

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