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The Research & Planning Group
for California Community Colleges

Curricular Redesign and Gatekeeper Completion:

A Multi-College Evaluation of the California Acceleration Project

Summary

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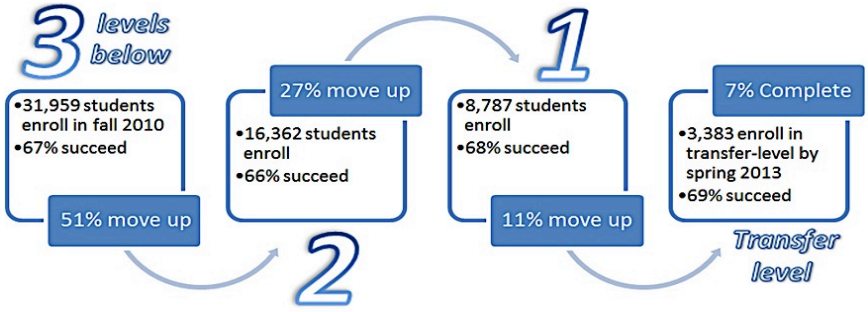
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Executive Summary

The Problem

Large numbers of students are being placed into long remedial or basic skills sequences from which few emerge. Across the California Community College system, only 7% of students beginning at three levels below transfer-level successfully complete transferable math within three years. The comparable number for English is only 19%.



Statewide progression of students in math from three levels below transfer to transfer-level math from fall 2010 through spring 2013.

The Intervention

The California Acceleration Project (CAP), an initiative of the California Community Colleges' Success Network (3CSN), provided training in the development of accelerated English and math pathways. While there was variation in the specific models implemented, all participating colleges reduced students' time in remediation by at least a semester; made no changes to the transferable college-level course (only remediation was redesigned);); and aligned remediation with the college-level requirements for college composition and statistics (science specific math such as pre-calculus was not included). Most also employed a set of CAP instructional design principles for creating "high-challenge, high-support classrooms."

The Study

The RP Group tested the hypothesis that *students in accelerated pathways complete the transfer-level gatekeeper course at a rate higher than comparable students who participate in the traditional sequence.* This hypothesis was examined by contrasting the completion of the transfer-level gatekeeper course by accelerated students relative to comparable students who were enrolled in the traditional English and math basic skills sequences in the 2011-2012 academic year, CAP's pilot year. Students were followed through spring 2013.

Main Findings

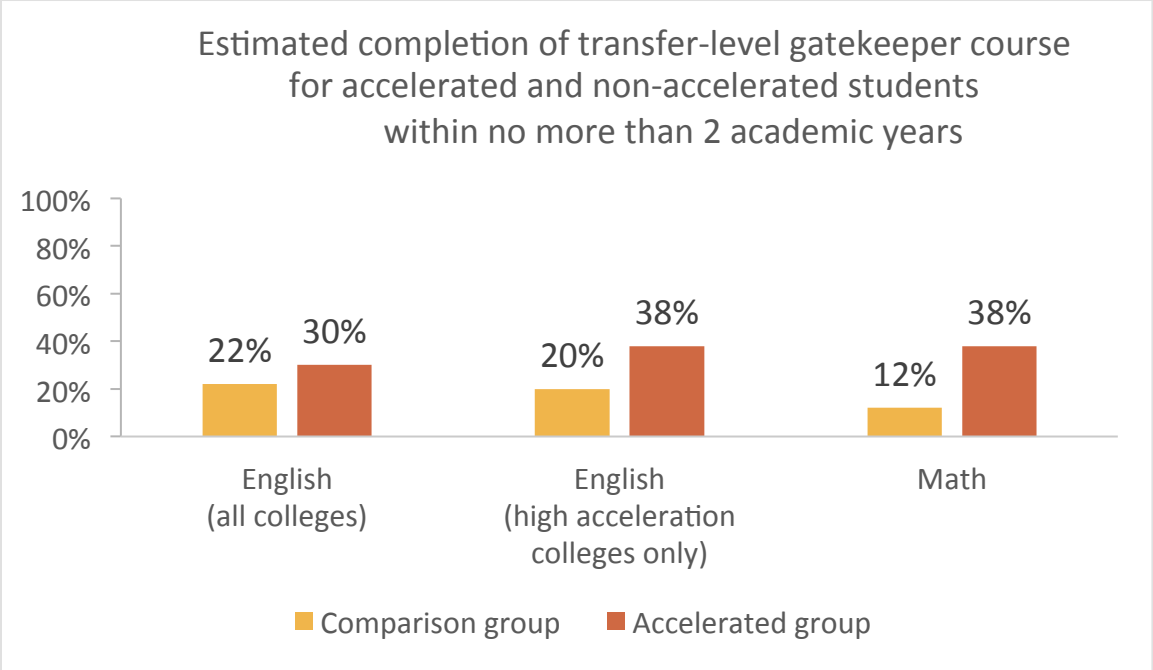
Acceleration effects were large and robust: This study found that accelerated pathways had an overall effect of increasing the odds of completing transfer-level gatekeeper courses for students at all levels of the developmental sequence. After controlling for an array of potentially confounding demographic and academic variables, students' odds of completing a transferable college-level course were 1.5 times greater in accelerated English models overall and 2.3 times greater in high-acceleration models. Students' odds of completing a transferable math course were 4.5 times greater in accelerated pathways than for students in traditional remediation. While not all of the accelerated pathways for English showed significant positive effects, no pathways showed significant negative effects.

Acceleration worked for students of all backgrounds: A diverse range of students in the analysis showed higher outcomes in accelerated pathways regardless of demographics such as ethnicity, gender, financial need, disability status, and prior English as a second language course taking.

Acceleration worked for students at all placement levels: Accelerated pathways were associated with increased odds of sequence completion for students placed at all levels of the basic skills sequence in both math and in English.

Implementation Mattered: Variation in how the 16 participating colleges realized acceleration was an important factor. English acceleration pathways were parsed into low-acceleration and high-acceleration pathways. Low-acceleration pathways imposed additional coursework and/or strong institutional filtering processes and tended to show little or no acceleration effect.

Results



Overall, the data suggested that English and math acceleration had a strong and positive association with completion of the transfer-level gatekeeper course. Students in accelerated pathways in the colleges studied completed transfer-level coursework at higher rates than did students in traditional developmental pathways. The acceleration effect was found even after controlling for a host of potentially confounding variables, including GPA (in non-related courses), place in the sequence, gender, and ethnicity. The estimated unique effect of acceleration is shown in the figure above (using marginal means from regressions). The completion rate in an accelerated pathway for Math was 38%, while the comparison group in the traditional sequence had an estimated 12% sequence completion rate. While English acceleration had a large and significant effect (30% accelerated completion rate vs. 22% for the comparison group), it was clear that the observed effect was largely being driven by the high-acceleration pathways, which boast an estimated completion similar to that seen in the accelerated math pathways and suggests the importance of implementation for achieving successful outcomes.

About the Study

The study tracked the progress of students from colleges that participated in the first year of the college's CAP implementation through spring 2013 for one to one and a half years after the intervention semester. The evaluation included 16 colleges and 48,450 students: 2,489 accelerated students and 45,961 comparison students. Comparison student data was drawn from students who had enrollments in developmental math and/or English in the same term as the accelerated students.

Data for this evaluation came primarily from the Chancellor's office (COMIS data) combined with assessment/placement data sourced directly from each participating college. A lead faculty member or researcher at each CAP college also completed an implementation survey that provided information on the specific ways in which acceleration was realized at each site. The full technical report is available at www.rpgroup.org/cap.

Stakeholders

CAP (http://cap.3csn.org/) is part of the California Community Colleges Success Network (3CSN). The project promotes and supports a community of practice centered on accelerated pathways for English as well as math. CAP provides training, advice, and support to faculty who are interested in implementing accelerated pathways at their local community college. This study was jointly funded by California Community College Success Network (3CSN) and a private grant from the Walter S. Johnson Foundation.

The RP Group Staff Biographies



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Dr. Hayward is embedded in the daily work of improving institutional effectiveness and student success at Irvine Valley College as the Director of Research, Planning and Accreditation. He received his Bachelor's in Journalism from Boston University and his Ph.D. in Human Development from the University of California, Irvine. He has taught statistics, research methods, and psychology to graduate and undergraduate students. In his capacity as a Senior Researcher for the RP Group, he has been involved in a number of prominent statewide projects including the Transfer Velocity Project, the Student Success Scorecard, and the Basic Skills Cohort Progress Tracker.



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Mr. Willett is Director of Planning, Research, and Knowledge Systems at Cabrillo College and a Senior Researcher with the RP Group. He received a B.A. in Psychology UC Santa Cruz and an M.S. in Environmental Studies from San José State University. He was the Director of Research for Cal-PASS and HI-PASS (linked K-12 and high education data systems for California and Hawai`i, respectively) and Director of Research for Gavilan College where he also taught Field Ecology. He is experienced with large relational data bases, predictive modeling using traditional and machine learning/data mining techniques, and geographic information systems (GIS) analyses.