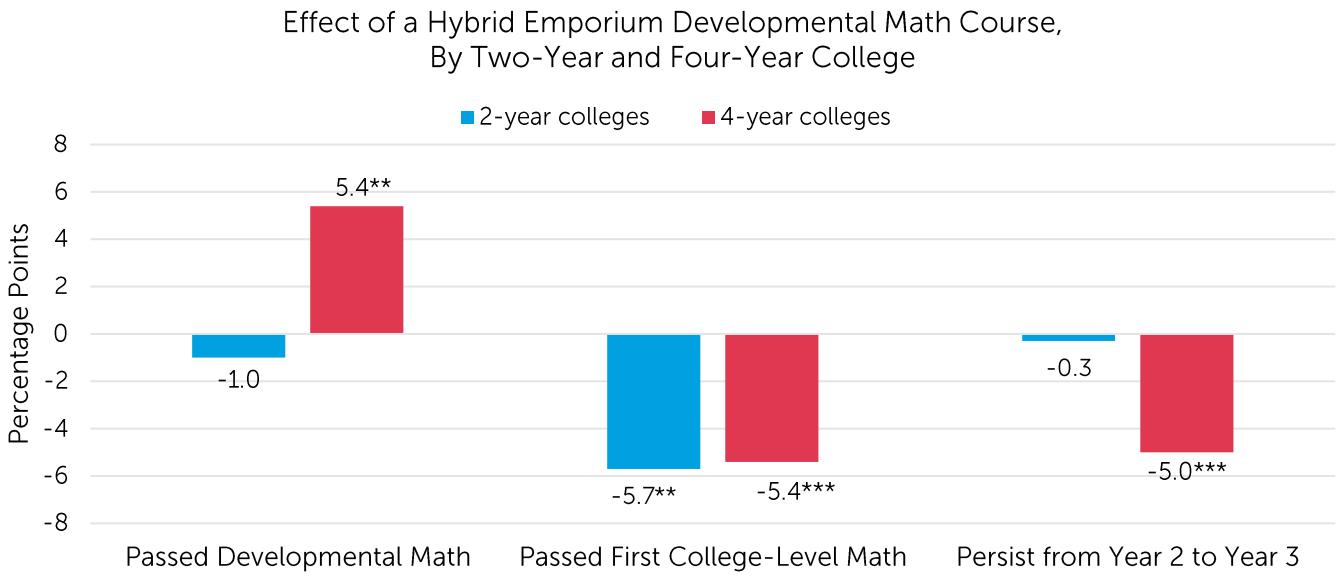
POINTS OF INTEREST
from STRONG START TO FINISH

Effects of Computer-Based Math Remediation

A hybrid emporium developmental math course helped some students complete developmental math requirements, but not college-level math.



Source: Boatman, A. (2019). Computer-based math remediation: Evidence from technology-centered instruction in two-year and four-year colleges. A CAPR Working Paper. Notes: Statistical significance represented with asterisks. *$p < .05$, **$p < .01$, ***$p < .001$.

Using nine years of data, this study compared outcomes for students who enrolled in traditional developmental math courses with students enrolled in a hybrid emporium model. In hybrid emporium course sections, students primarily learn content and skills at their own pace through a computer-based platform; during class time, faculty facilitate individual learning rather than guiding whole-class instruction.

Using a difference-in-differences approach, the study found that community college students enrolled in a hybrid emporium model were 5.7 percentage points less likely to pass their first college-level math course. At four-year institutions, students assigned to hybrid emporium sections saw similar negative college-level course outcomes and also negative longer-term persistence outcomes. However, students in hybrid emporium sections at four-year colleges were 5 percentage points more likely to pass their developmental math requirements. This Points of Interest shows that assignment to hybrid emporium developmental math had different effects at two- and four-year institutions; the approach did help students in four-year colleges complete their developmental math requirements, but this positive impact did not carry through to college-level math.

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