

Snapshot: **Alternative Indicators of College Readiness in Math: Can We Better Identify Who Needs Developmental Education?**

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Each fall, approximately 20,000 new enrollees at the City University of New York (CUNY)—more than half of all freshmen who start college at CUNY—are assigned to developmental education in at least one subject, most often mathematics. Developmental education policy has high stakes for students. Traditional developmental courses do not advance students toward a degree, but they do take time and consume financial resources.

Therefore, identifying which students are ready for college-level work and which would benefit from taking developmental courses is a critical task for universities. However, recent research suggests that current practices are not as effective as they could be in identifying which students should be placed into developmental courses and that many students assigned to developmental math courses could pass regular college-credit math courses. CUNY currently relies on several standardized tests to assign students to developmental courses, but these tests have proven to be relatively weak indicators of college performance.

Our Study

Inspired by emerging research and practices in other university systems, CUNY is considering incorporating high school grades and other academic indicators into developmental education placement decisions. We used administrative data available through The New York City Partnership for College Readiness and Success to assess the potential value of using several measures of preparation other than test scores to predict college math performance. Specifically, we investigated the strength of overall high school GPA, high school math course grades, and math course-taking in grade 12 as indicators of math college readiness.

We estimated logistic regression models predicting whether or not a student passes his or her first credit-bearing college math course as a function of our indicators of interest and a set of demographic and course-related controls. The study focused on students who entered 9th grade in 2006, graduated from a New York City public high school in 2010, enrolled at CUNY immediately, and took a credit-bearing math course without needing prior developmental work (N=8,094).

Findings and Implications

We found that overall GPA and math grades are significant predictors of passing college math, above and beyond current placement criteria and other control factors. Taking a math course in grade 12, on the other hand, does not play a significant role in predicting who passes when other factors are controlled for.

Our finding that high school grades are strong predictors of college grades is in line with previous research and suggest that CUNY should explore the feasibility of using high school grades to improve decisions about whether students should start in credit-bearing or remedial math courses.

Read the full working paper:

http://steinhardt.nyu.edu/research_alliance/publications/alternative_college_readiness_math_indicators

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