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JOHN W. GARDNER CENTER for Youth and Their Communities

Math Articulation Between the San Francisco Unified School District and the City College of San Francisco

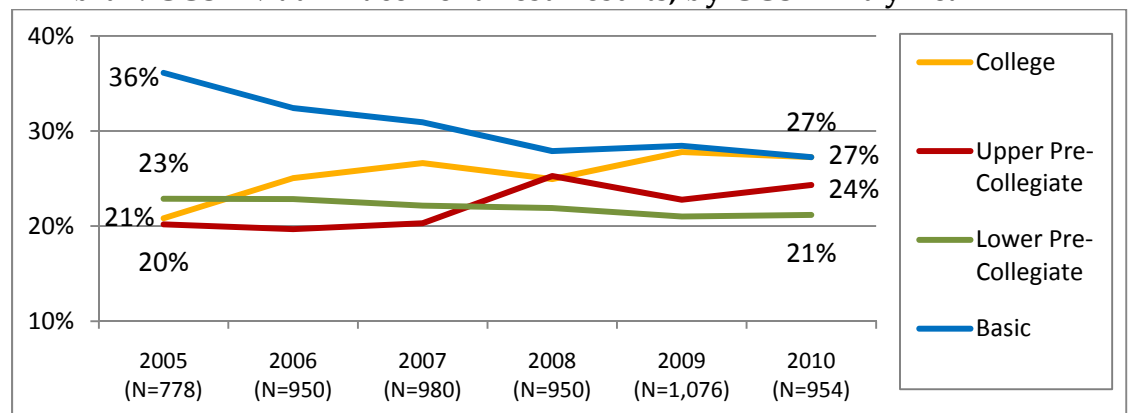
Background

San Francisco's Bridge to Success (BtS) initiative brings together the City and County of San Francisco, the San Francisco Unified School District (SFUSD), the City College of San Francisco (CCSF), and key community organizations to promote postsecondary success for underrepresented students. At the request of math teachers from SFUSD and CCSF, the John W. Gardner Center for Youth and Their Communities (JGC) at Stanford University used its Youth Data Archive to conduct this analysis, which focuses on the relationship between students' high school math performance at SFUSD and their performance on CCSF's math placement test for incoming students.

Placement Test Results for SFUSD Graduates Attending CCSF

This analysis followed 5,689 students who were enrolled as first-time SFUSD 9th graders from 2000-01 through 2005-06, graduated from SFUSD in four years, attended CCSF within three years after graduating, and took CCSF's math placement test upon graduating. CCSF students take the ACCUPLACER® math placement test, and results are used to assign students into one of four categories: college-level, upper pre-collegiate (i.e. Intermediate Algebra), lower pre-collegiate (i.e. Elementary Algebra), or basic (i.e. Arithmetic). Exhibit 1 shows that placement test results for SFUSD students have improved over time, as 27% of SFUSD's four-year graduates placed at college level in 2009-10, compared to 21% in 2004-05. The percentage of four-year high school graduates placing at the basic level decreased from 36% to 27% over the same time period.

Exhibit 1. CCSF Math Placement Test Results, by CCSF Entry Year



Key findings include:

- Three groups of students were most likely to place college-level at CCSF:
 - Students who scored Proficient or Advanced on the Summative Math or Algebra 2 California Standards Test (CST);
 - Students who were assessed as “college-ready” or “conditionally college-ready” on the Early Assessment Program (EAP);
 - Students who passed an AP Calculus or AP Statistics course at SFUSD.
- Students were more likely to place college-ready if they had consistently higher grades through all their math courses, including Algebra 1 and Geometry, and if they continued to take math through 12th grade.
- Just 17% of students who passed Algebra 2 with a grade of A, B, or C and 49% of students who passed Trigonometry or Pre-Calculus placed into college-level math at CCSF.
- Students at different high schools did not perform the same on CCSF’s placement test, even when they took similar math courses and received similar grades. CST results were better predictors of college-level placement on CCSF’s math placement test than course grades.

A gap in student performance across schools may be a result of inconsistent standards, the relative effectiveness of particular pedagogy, curricula or textbooks, differences in class size, the availability of higher-level course offerings, student’s test-taking skills or confidence, access to extracurricular test prep courses, or any number of other factors that could be further explored.

From Findings to Action

These results highlight a key challenge: graduating from high school does not necessarily indicate college-readiness. CCSF has found that most students who place below college-level do not ever reach a college-level math (or English) course that would allow them to graduate or transfer to a four-year institution. Secondary and postsecondary institutions should work together to improve course alignment and share effective teaching practices. Care must be taken so that standardized tests that evaluate students at only one point in time, such as placement tests for college freshmen, are effective measures and do not negatively impact student outcomes by preventing student progression through their postsecondary coursework in a timely manner. CCSF is currently discussing a number of possible approaches to altering placement test policies and developmental courses sequences in order to increase student success.