



SFUSD SAN FRANCISCO
PUBLIC SCHOOLS

PRESS RELEASE

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Historic shifts in Math show promise
Students significantly more likely to pass Algebra the first time

September 14, 2017 (San Francisco) - New SFUSD data show that students who took Common Core Algebra 1 in ninth grade were 83 percent less likely to have to repeat the course than students who took Algebra 1 in eighth grade. The comparison between current juniors and seniors marks SFUSD's transition to its current approach to secondary math instruction.

This new analysis comes on the heels of a report released by SRI International last year regarding SFUSD's Science, Technology, Engineering and Math (STEM) Learning Initiative. The SRI report showed that SFUSD's eighth grade students were testing ahead of peers in other school districts in math performance.

"We are seeing that the changes SFUSD made to its math curriculum three years ago are dramatically increasing student comprehension and mastery of Algebra," said SFUSD's Chief Academic Officer Brent Stephens. "The thoughtful progression of math topics builds from Common Core Math 8 to Algebra 1, and students are now dedicating time to important math topics that were rushed under the former standards and instructional practices."

"Far too many children across the US were graduating with limited understanding of math. Mathematicians, STEM industry leaders and math teachers came together to reinvent how math should be taught. SFUSD learned from and built on the well-researched recommendations of the Common Core. Our early analysis is showing great proof that students are benefiting from these historic shifts," said Superintendent Dr. Vincent Matthews.

Dramatic increase in student comprehension

SFUSD's Research, Planning and Assessment Department reviewed longitudinal data for the number of SFUSD high school students repeating Algebra prior to SFUSD's transition to its current approach.

It found that SFUSD students who took Algebra 1 in 8th grade in 2014 (the last year it was offered as a stand-alone course to eighth graders) had a repeat rate of 40 percent. By contrast, current 11th graders, all of whom likely took Common Core Math 8 in eighth grade and Algebra 1 for the first time in 9th grade, had an Algebra 1 repeat rate of only 7 percent.

Common Core Math 8 better preparation than stand-alone Algebra for 8th graders

Last year, SRI International analyzed responses to a Mathematics Assessment Resource Service (MARS) task in which students developed a linear model and had to both solve for the answers and explain their thinking.

The report showed SFUSD had a greater percentage of high-performing students and fewer low-performing students than the comparison group derived from 8,629 diverse students from 34 different school districts. The SFUSD group included tasks completed by 599 students from 10 different SFUSD schools.

SFUSD's secondary math program

The SFUSD Math Core Curriculum is designed for all students to meet the Common Core State Standards (CCSS) for Mathematics.

In order to graduate from SFUSD, students are required to complete CCSS Algebra 1, CCSS Geometry and CCSS Algebra 2 (students may choose to take a compression class that combines Algebra 2 and Precalculus).

Students are advised to complete those required courses before entering 12th grade, so they have the option to enroll in other math courses in 12th grade. This recommended course sequence provides students the best possible opportunity to learn grade-level mathematics deeply, and is both rigorous and developmentally appropriate.

SFUSD's Math Department adopted its new course sequence plan for middle and high school mathematics starting in August 2014, paving the way for new Common Core State Standards in Math.

“By concentrating on a clear set of math skills and concepts, Common Core Math provides students with the knowledge and skills they need to be prepared for mathematics in college, career, and life,” said Jim Ryan, Executive Director of STEM for SFUSD. “ Various pathways provide all students the opportunity to make sense of rigorous math in ways that are creative, interactive and relevant.”

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