



July 6, 2023

Dr. Linda Darling-Hammond, President
California State Board of Education
1430 N Street, Suite 5111
Sacramento, CA 95814

RE: Comments Regarding Item 11: Adoption of the 2023 Mathematics Framework for California Public Schools, Kindergarten Through Grade Twelve

Dear Members of the State Board of Education,

On behalf of Just Equations, I appreciate the opportunity to comment on the *2023 Mathematics Framework for California Public Schools* (Mathematics Framework). If implemented effectively, the framework will support increasing math opportunity for California students, including enabling more underrepresented students to deepen their mathematical proficiency and take advanced math courses. In addition to comments we submitted—in conjunction with other education advocacy and research organizations—supporting adoption of the framework, we would like to express specific support for the following recommendations:

- The adoption of culturally responsive teaching strategies to broaden engagement with mathematical depth and address the need to enhance equity in mathematics learning and achievement.
- A balanced approach to acceleration to provide equitable access to higher-level mathematics—including entry points in middle school and high school—where appropriate without rushing students through curricula absent a chance to master the content (which contributes to learning declines), as recommended by the National Council of Teachers of Mathematics.

- The integration of data science/literacy as a continuum throughout the curriculum and the addition of high school data science options, which expand opportunities for students and address parental demands for more relevant math courses.
- Recognition of the importance of expanding access to calculus courses for students preparing to major in STEM fields.

In tandem with the framework, we believe further steps are necessary to ensure equitable math opportunity in California:

1. A minimum graduation requirement of three years of mathematics to replace the current state requirement of two years, ensure all students are learning mathematics through the majority of their high school years, and minimize disparities in mathematics access across schools.
2. Data collection and analysis to monitor and respond to racial and ethnic disparities in middle school and high school math coursetaking (within and across schools), including with respect to implementation of the Math Placement Act of 2015.
3. Further investigation of strategies to address the patterns of math course tracking by race—including strengthening counselor and family awareness of advanced course opportunities—and elevation of those approaches that prove most successful.
4. Longitudinal research into outcomes of students in various third and fourth year math courses to understand the relationships between various courses and students' postsecondary outcomes and further address concerns raised about newer course options.

Sincerely,

A handwritten signature in black ink that reads "Pamela S. Burdman". The script is fluid and cursive, with the first name "Pamela" being more prominent than the last name "Burdman".

Pamela Burdman
Executive Director, Just Equations