



California Association of Science Educators

This case study highlights how an effective coalition can be mobilized to address an important teaching and learning need. We worked with our client and several strategic partners to successfully advocate for dedicated state funding for professional development for science teacher instruction aligned to the California Next Generation Science Standards (CA NGSS). We pursued several options to achieve this objective, including legislation, allocation through the state budget process, and State Board of Education policymaking. We were ultimately successful in achieving the inclusion of dedicated funding for science instruction in the final version of the 2022-23 California state budget and approval of a State Board policy to include a science indicator on the California School Dashboard.

The Challenge

California, recognized around the world for its STEM-focused tech sector, adopted the California Next Generation Science Standards (CA NGSS) in 2013. These standards are designed to help students learn science through engaging, hands-on lessons that can be interwoven with and reinforce standards in math, English language arts and English language development. To deliver on the promise of these standards, most science teachers need professional development to help them provide instruction that engages students.

Even though research shows that the single greatest in-school factor in students' learning is the quality of their classroom instruction, as of 2022, California had not invested in professional development for science teacher instruction aligned to the new NGSS standards. The need is clear. The results of statewide assessments show that just a third of California students meet the state's standards in both math and science, and that there is a significant inequitable gap in science and math achievement. The school closures and shift to distance learning due to the COVID pandemic upended student learning and left many science teachers challenged to support their students' progress outside of the classroom.

Science instruction experts and a wide range of education advocates agreed that dedicated funding to support science teacher professional development aligned to the NGSS was critically needed in California.

The Plan

The Ball Frost Group was engaged by California Association of Science Educators (CASE), which leads the promotion of high-quality, equitable science education through advocacy, collaboration, and communication, to address the need for a statewide investment in high-quality science instruction. The science educators partnered with the California Partnership for Math and Science Education, the Exploratorium, and joined with the Education Trust-West to develop an advocacy strategy for 2022.

Because science and mathematics instruction are commonly integrated, the advocates for professional development for science teachers saw common cause with those advocating for better STEM instruction for all students. This led to the mobilization of a broad coalition that included leading advocates for equity, science and math educator networks, county offices of education, and institutions of higher education.

The coalition had a great resource to anchor the case they were making to the Legislature for the need to invest in professional development for math and science instruction – a report titled **Equitable Science and Mathematics Education: Blueprint for Action**. The coalition shared this report with members of the Governor’s Office, State Board of Education staff, the Legislature and legislative staff in spring 2022.

The coalition hosted a webinar for legislative and state agency and department staff and education beat reporters to introduce the Blueprint and showcase the broad support for better math and science instruction. The webinar featured opening remarks by Assembly Member Blanca Rubio, author of [Assembly Bill 2565](#), which was the opening salvo on this topic in the 2021-22 legislative session.

In her remarks during the webinar, Assembly Member Rubio emphasized the importance of high-quality science instruction for all students to more equitably excite and prepare student for careers in STEM fields. The webinar also included a preview of a report published by the Public Policy Institute of California (PPIC) examining the deeply concerning impact of COVID on science instruction in California. This PPIC report, [The Impact of COVID-19 on Science Education, Early Evidence from California](#), was later published in June 2022.

With the advantage that a surplus was forecast for the California state budget, the coalition found that there was early interest among members of the Legislature to invest in high quality science and math instruction. With Assembly member Rubio’s support, the coalition engaged with other members serving on the legislative education budget subcommittees and to the Newsom administration and California Department of Finance to negotiate moving the concepts from AB 2565 into the state budget.

The coalition’s proposal was reflected in Gov. Gavin Newsom’s [revised May budget](#), which included \$85 million for a statewide math and science educator network and an additional \$300 million to school districts to fund educators’ participation in science and math professional learning. However, the Legislature’s version of the budget had reallocated this funding into a very large discretionary block grant to be used for salaries only.

From May through the end of June, the coalition’s mission was to ensure that the funding stayed in the budget, and that it would be allocated in a way that did not dilute the purpose or make the funding inaccessible for use with proven professional learning networks with a track record of success.

To build the case for the approach in the May Revision, an [op-ed](#) co-authored by Christopher J. Nellum, executive director of The Education Trust-West, Peter A’Hearn, president of the California Association of Science Educators, and Shari Dickstein-Staub, director of the California Partnership for Math and Science Education, was successfully published in EdSource. The op-ed was shared widely with Legislators and legislative staff, and through coordinated social media messages that helped to amplify the coalition message and advocacy efforts.

The Outcome

The coalition was ultimately successful in ensuring that dedicated funding for science and mathematics instruction was included in the final version of the 2022-23 California state budget.

Budget language:

To support educators in providing effective STEM instruction that engages and inspires students, the Budget includes \$85 million one-time Proposition 98 General Fund to create Pre-K through 12 grade educator resources and professional learning to implement the Next Generation Science Standards, the California Math Framework, the California Computer Science Standards, and the math and science domains of the California Preschool Learning Foundations. These funds will also support the alignment of other state STEM educator support initiatives (i.e., UC Subject Matter Projects, Early Math Initiative, etc.) with this work, to create a cohesive statewide continuum of instructional supports for all STEM educators.

The Budget also provides \$35 million one-time Proposition 98 General Fund, available over three years, to continue the work of the Educator Workforce Investment Grant program in the areas of computer science, special education and support for English Learners.

This coalition continues to advocate together to ensure that students benefit from improvements in science instruction. In spring 2022, the coalition called on the California State Board of Education (SBE) to include a science indicator on the California School Dashboard.

The SBE approved the reporting of the California Science Test (CAST) results in the Dashboard at their September 2022 meeting. The link to these data acknowledges the importance of science instruction and student progress in this subject area. For the 2023 Dashboard, the California Department of Education (CDE) intends to provide the link to each school/LEA's CAST results. Beginning in 2024, the CDE will have access to two years of results from the 2021–22 and 2022–23 CAST assessments that were based on the revised blueprint for accountability purposes and can develop options toward inclusion of this test on the Dashboard