

## **Fast track to STEM teaching in state with federal grants**

**BY Kathryn Baron**  
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Five alternative teacher certification programs in California that won millions in federal grants are on track to train nearly 800 math and science teachers and place them in high-poverty, hard-to-staff schools.

The [California Teacher Corps](#), which represents more than 70 of the state's alternative certification programs, said the projects, which began with planning grants in 2011-12, will receive about \$18 million over five years from [Transition to Teaching](#), a competitive grant program run by the U.S. Department of Education. Its goal to recruit and train teachers in science, technology, engineering and math (known as STEM fields). Particularly in high-needs schools, California continues to face a shortage of fully trained STEM teachers.

The idea behind alternative routes is to entice mid-career professionals in math, science and technology, who may be looking for a change, into the teaching profession, said Corrine Muelrath, executive director of the California Teacher Corps. It may be someone who was downsized out of a job, said Muelrath, or "someone who always wanted to be a teacher but went down a different path."

The programs are more attractive than traditional teacher certification programs to people going through a job transition because they typically accelerate people into the classroom and pay them for learning to teach while they're earning their credentials.

The winning projects are based in one school district and four universities.

- Cal State Dominguez Hills' [Transition to Teaching Project](#) plans to enroll 225 students over five years who will take online classes while putting those lessons into practice working side by side with master teachers in Saturday and summer laboratory schools for students from more than a dozen southern California districts.
- Cal State Fullerton is partnering with nine southern California school districts on the [AIMS \(Autism, Inclusion, Mathematics Core and Science Innovation\) Scholar Project](#) to train math, science and special education teachers from underrepresented ethnic groups. They plan to enroll 30 people a year for each of the first three years from paraprofessionals, mid-career professionals and recent college graduates.
- Holy Names University has developed an undergraduate-graduate residency program for special education and STEM teachers, also known by the acronym AIMS, for a project called the [Autism, Inclusion, Math and Science Program](#), which operates in

collaboration with Oakland Unified, West Contra Costa and Hayward Unified school districts.

- Oakland Unified School District seeks to continue efforts to create a diverse teacher workforce by expanding its [Teach Tomorrow in Oakland: Project STEM](#) to recruit, prepare, place and retain local educators, such as elementary school teachers, to become credentialed in a STEM discipline and move into secondary schools. Project STEM students enrolled in credential programs at Holy Names University in Oakland and Cal State East Bay are eligible for tuition discounts at those colleges.
- The University of San Francisco, in partnership with San Francisco Unified School District, Stanford University, United Educators of San Francisco, Community Initiatives, and AmeriCorps, has designed the [San Francisco Teacher Residency](#) program to train aspiring teachers to work in urban public schools teaching math, science and Spanish bilingual literacy.

Muelrath said alternative certification programs are more individually tailored to the unique needs of students living in high-poverty neighborhoods and attending schools with a history of high teacher turnover. “The alternative certification candidates are getting ongoing support and they’re starting their own classroom, so what they’re learning about becoming a teacher is embedded in their day-to-day practice,” she said.

California needs more than 33,000 new STEM teachers within a few years (and that’s a conservative estimate according to a 2007 [report](#) by the Center for the Future of Teaching and Learning), but the state is running about 30 percent behind on meeting that goal. Even among the current teacher workforce, the Center found that between 9 and 10 percent of high school math and science teachers are underprepared. Those figures are higher at low-income schools. That’s why one critical requirement of credential students who go through a Transition to Teaching program is that they must remain in the high-needs schools where they’re placed for at least three years.