

California State University, Dominguez Hills

ABSTRACT

Project Title: STEM Teachers in Advanced Residency, or STAR

Absolute Priority 2 Competitive Preference Priorities 1A and 1B, 2A and 2B

Project Description: STAR will prepare highly qualified secondary science and math teachers for the Los Angeles Unified School District (LAUSD), a high-need LEA with documented need for STEM teachers. Residents will earn a master's and preliminary credential in 15 months and be hired by LAUSD in high-need schools that enrolls large percentages of low-income, minority students with low achievement in math and science. STAR will significantly enhance CSUDH's residency pathway, developed via TQP 2009 grant, with higher stipends, industry internships, exposure to varied teaching styles, and more extensive clinical experiences.

STAR activities include recruiting strategies that will attract many participants from groups traditionally underrepresented in STEM. CSUDH will redesign curriculum to emphasize 21st Century skills, technology, content literacy, new generation science standards and common core state standards, and deliver rigorous, blended credential and master's coursework that integrates theory and practice. Participants will complete a yearlong residency with trained master teachers in one of 10 high-need partner secondary schools. STAR includes additional clinical experiences in CSUDH's innovative Lab School. One semester, residents will spend two afternoons a week in internships with researchers or industry to gain applied knowledge. They will attend monthly professional learning community meetings in cohorts with their mentor teachers. CSUDH will specially design a new two-year induction program that participants will pursue with support from a master teacher to earn a full credential. As 1st- and 2nd-year teachers, they will attend the monthly Professional Development Academy, which will be optional for residents and teachers in partner schools, for in-depth exploration of key issues. Graduates will be prepared to teach students of varying achievement levels the Common Core math standards and Next Generation Science Standards. CSUDH and LAUSD will institutionalize and sustain the successful aspects of STAR so that the project's benefit extends beyond the grant period.

Project objectives and expected outcomes: CSUDH's STAR project will produce **105 highly qualified math or science teachers** with skills matched to the needs of students in the high-need LAUSD. Residents who complete STAR will be hired and remain as teachers in high-need schools for 3 or more years. Students of participants in STAR will outperform students of nonparticipating math and science teachers—matched by experience—in comparison secondary schools in LAUSD without recent graduates of the CSUDH credential programs. CSUDH and LAUSD will develop and sustain the project's partnerships and institutionalize its reforms. The residency program and the Lab School will train math and science teachers specifically for the challenges of high-need urban schools. These qualified math and science teachers will improve achievement in math and science.

Special project features: One-semester internships and 3 years of clinical experiences in Lab School. Lab School will meet 80 hours over 4 weeks in the summer and every other Saturday during the school year on a partner middle and high school campus. Residents will join instructional teams with veteran and novice (STAR 1st- and 2nd-year) teachers. Teams will conduct intensive cycles of plan-teach-assess-reflect with students who vary from low to high levels of achievement.

Partners: California State University, Dominguez Hills; Los Angeles Unified School District; Troops to Teachers; and ENCORPS.