

CITIZEN SCIENTIST RESIDENCY PATHWAY

PR Award #: U336S180012

Organization Name: California State University Bakersfield

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Project Model: Pre-bac Model

Competitive Preference Priorities: (1) *Promoting STEM Education, and (2) Promoting Effective Instruction in Classrooms and Schools*

Requested Total Award Amount: \$4,923,517.54

Project Description: The Citizen Scientist Residency Pathway will address preparation of teachers by leveraging the learning and existing partnerships from three teacher residency programs to create pathways for the preparation of 240 post-baccalaureate multiple subject science, technology, engineering, and math, with an emphasis on computer science (STEM-C), credential completers and 240 single subject STEM-C credential completers over five-years as part of a fifth-year initial licensing program.

Project Expected Outcomes: The Citizen Scientist Residency Pathway, in collaboration with campus and district partners, has three core goals: 1) Develop a pathway to increase the capacity of multiple subject credential and single subject credential Residents to design, facilitate, and assess high quality, civic-focused STEM-C pedagogy and curricula in high-needs schools; 2) Sustain a pipeline of credentialed teachers who are committed to teaching civics-focused STEM-C curricula and pedagogy in high needs school districts by creating tailored recruitment, retention, and induction processes; and 3) Co-create and co-implement curriculum, pedagogy, and sustainable multi-stakeholder partnership structures for professional development to support teacher leaders, site administrators, superintendents, and university faculty's use of research-based best practices in the domains of teacher recruitment, retention, and induction, with an emphasis on the intersections of STEM, civics, and computer science teaching and learning.

Project Special Features: The Citizen Scientist Project will focus on the preparation of teachers for high needs K-12 schools composed of majority English Language Learners and minority populations through several partnerships. In particular, the Citizen Scientist Project addresses the need for highly qualified STEM-C educators who are able to create and facilitate interdisciplinary STEM-C lessons that engage local issues and help students translate STEM-C concepts into civic action, with an emphasis on the development of digital civic infrastructure.

Project Partners: California State University, Bakersfield (CSUB) Department of Teacher Education, CSUB Department of Computer and Electrical Engineering and Computer Science, The Kegley Institute of Ethics (KIE), Bakersfield City School District (BCSD), Kern High School District (KHSD), and Greenfield Union School District (GUSD).