

# Discovering the Needs Assessment of Qualified STEM Teachers for the High-Need Schools in South Texas

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With the arising concerns of the shortage of certified STEM teachers in South Texas, the faculties from the departments of Electrical Engineering and Computer Science, Teacher & Bilingual Education, and Mathematics at Texas A&M University-Kingsville (TAMUK) conducted a needs assessment through Student/Teacher surveys. The assessment results indicated that many of the students would like to teach STEM subjects including Computer Science in the high need schools, and most of the teachers thought the K-12 STEM education was inadequate and professional development for STEM teachers was insufficient, and they would like the universities to provide training or professional development for STEM teachers.

These assessment results have been utilized for the proposal of National Science Foundation's Robert Noyce Teacher Scholarship Program. Under the award along with the findings of the needs assessment, TAMUK will contribute to help the area school districts to reach their goal hiring qualified STEM teachers and improve students' knowledge and performance in STEM subjects. Over the next five years, TAMUK is expected to recruit, prepare, and retain 24 new highly qualified STEM teachers for high-need schools in South Texas. This will broaden

participation of underrepresented groups in STEM disciplines by preparing teachers who will strengthen the teaching and learning of STEM subjects.

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