Grant Title: INNOVATIVE TECHNOLOGY EXPERIENCES FOR STUDENTS AND TEACHERS (ITEST)

Funding Opportunity Number: NSF 12-597. CFDA Number(s): 47.076.


Area of Research: ITEST supports the research and development of innovative models for engaging K-12 students in authentic experiences that build their capacity to participate in the science, technology, engineering, and mathematics (STEM) and information and communications technology (ICT) workforce of the future.


Amount: Scale-up and Resource Center projects: Up to $2 million. Strategies and Research projects: Up to $1.2 million. The requests should be appropriate to the duration and scope of the Scale-up, Strategies, or Research project. Estimated Number of Awards: 20.

Length of Support: Research & Scale-up projects: 3-5 years. Strategies & Resource Center projects: Up to three years.

Eligible Applicants: Unrestricted.

Summary: The ITEST program is funded by H-1B visa revenues in direct response to the need to ensure a high-quality future STEM and ICT workforce that can meet U.S. technology needs. The goals of the ITEST program are as follows: (1) to develop, implement, study, and evaluate interventions that encourage K-12 students to develop interest in and to be prepared for careers in the STEM and ICT workforce of the future; (2) to produce research findings that build knowledge about approaches, models, and interventions involving K-12-aged children and teachers that are most likely to increase the nation's capacity and innovation in the STEM and ICT workforce of the future; (3) to equip teachers with the resources to ensure that their students consider choosing and are prepared to enter the STEM and ICT workforce of the future. NSF is especially interested in supporting investigators to identify established or emerging STEM or ICT areas of focus and create new strategies, scale-ups, or research projects within those areas that may yield further development of innovation or capacity within the STEM workforce of the future. Projects may also provide the opportunity for students to learn and practice essential skills. ITEST invests in four types of projects: Strategies, Research, Scale-up, and Resource Center projects. The goal of ITEST Strategies projects is to design, implement, and evaluate interventions that support K-12 students' engagement in authentic, relevant experiences that reflect the skills, knowledge, and practices represented in the STEM and ICT workforce and motivate students to pursue STEM and ICT career trajectories. The goal of ITEST Research projects is to produce empirical findings and research tools that contribute to knowledge about which approaches, models, and interventions with K-12 students and teachers are most likely to increase capacity in the STEM and ICT-intensive workforce of the future. The goal of ITEST Scale-up projects is to apply strategies to enhance student or teacher knowledge of, or disposition toward, STEM and ICT careers that have evidence of effectiveness under routine conditions to a broader audience for the purpose of learning effective steps in expanding the adoption of successful innovations in school and out-of-school settings. Scale-up projects can include expanding existing designs, implementations, and tests of research and theory-based models or models based in best practice and professional expertise, to engage, motivate, and prepare students to be participants in the STEM and ICT workforce of the future. One Resource Center will be funded to provide technical support for all ITEST projects and have responsibility for national dissemination of program models, materials, and best practices.

Detailed Information: