NSF INCLUDES: Building upon CAHSI’s Success to Establish a Networked Community for Broadening Participation of Hispanics in Graduate Studies

Abstract

A partnership of institutions and organizations from public and private sectors, all with an established record in advancing Hispanics in higher education, will form a networked community across regions of the U.S. with significant Hispanic populations to collectively adapt and adopt proven practices and apply them throughout the higher education system of 2-year colleges and baccalaureate-, master’s-, and doctorate-granting universities. The partnership builds on the successful NSF-funded Computing Alliance of Hispanic-Serving Institutions (CAHSI) that has emerged as a significant pipeline of new recruits into computing graduate studies, industry, and the professoriate throughout this nation. With a mere 4% STEM Master’s and 3% STEM doctorate degrees awarded nationwide to Hispanics in 2012-2013, the desperate need to reach parity is clear. The shared purpose and bold vision of the effort is to achieve parity in the number of Hispanics who complete computation-based graduate studies. The focus will be on targeting the pool of talented students at Hispanic-Serving Institutions (HSIs) who, for various reasons, do not choose to continue on STEM educational and career pathways. The efforts will focus on transitioning Hispanic students from associate degree programs to baccalaureate programs, and from baccalaureate programs (regardless of where they began their studies) to completion of graduate degrees.

The project will establish a common agenda that guides the vision and strategy for collective impact, conduct data collection to longitudinally track student movement across campuses, and launch a multi-site pilot to test feasibility of the full-scale plan and process for change. While prior research has identified strategies for increasing graduate program completion rates for underrepresented minorities, little attention has been paid to the role of HSIs in reducing attrition. Attention to HSIs is a critical element in developing successful pathways to STEM careers. The networked community will involve social scientists across the different regions in research on Hispanic graduate program completion, to complement existing research on undergraduate completion. Developing a comprehensive, scalable model for cross-institutional advancement of students, in particular the combination of a bilingual and bicultural student body with unique needs, is critical to grow the STEM pipeline. Through a pilot, the project will engage 2-year colleges and universities to begin the initial investigation on the impact of building strong student identity, student belonging, advocacy, and preparation on accelerating the number of students entering, persisting in the major, and considering, entering, and ultimately completing graduate studies in computational areas.