Alliance between Historically Black Universities and Research Universities for Collaborative Education and Research in Computing Disciplines

Project Summary

This proposal describes a ten institution collaboration that will result in significant, sustained increase in enrollment and graduation of African-Americans in graduate level computing degree programs and entry into research-oriented careers. Our program, based upon the combined experience of committed partners, will strengthen undergraduate computing programs, create and maintain research experiences for undergraduates, and support ongoing research and teaching partnerships among faculty members. These activities will increase African-Americans’ entry into computing research careers, support new faculty in maximizing their career potential, and produce a steady progression of role models for undergraduate students, indirectly increasing the participation of African-Americans in computing professions more generally.

The plan detailed in this proposal promotes research-based effective practices within several institutions experienced in developing and maintaining productive partnerships. The PIs are experienced in facilitating relationships between research universities and Historically Black Colleges and Universities (HBCUs) and avoiding potential pitfalls. Evaluation, a key component of the plan, will furnish ongoing feedback for implementation and will carefully document and disseminate the processes that are effective and ineffective for reaching our goals. These practices will be broadly disseminated, increasing the likelihood that other partnering institutions can successfully adopt them to attain similar outcomes.

The HBCU participants in this proposal are: North Carolina A&T State University (lead), Bennett College, Dillard University, Jackson State University and Norfolk State University. The research universities are Colorado, Georgia Tech, and Virginia Tech. North Carolina State and United Negro College Fund Special Programs provide consulting to the alliance. Many relationships already exist between the HBCU and research partners, as well as excellent experience in leading national alliances such as North Carolina’s Alliance for Minority Participation, and the National Center for Women & IT.

Intellectual Merit

The Alliance is built upon a three pronged approach:

- Strengthen undergraduate computing and information technology programs at HBCUs
- Institutionalize two-way research and graduate education, and teaching, partnerships
- Create pathways for HBCU students to pursue faculty careers

It includes carefully conceived approaches including a dual feeder model that allows some HBCU undergraduates to pursue masters study at a research intensive HBCU before going on to Ph.D. study at a research university, and ways to create true two-way research partnerships that include faculty from HBCUs and research universities partnering on research teams and graduate student supervision. Assessment and evaluation is integrated from the outset, using a highly experienced evaluation group.

Broader Impacts

The aim of the alliance is broadening participation in computing by African-Americans. It will:

- Increase the diversity of computing graduates entering the workforce and faculty careers
- Increase the quality of computing programs at HBCUs
- Increase the ability of research universities to work effectively with diverse populations
- Increase the diversity of the professoriate and the ability of HBCUs to attract excellent faculty
- Create lasting partnerships between HBCUs and research universities
- Create partnerships with industry in support of the goals of broadening participation in computing