



## **APLU INCLUDES** **A Collective Impact Approach** **to Increase the Diversity of STEM Faculty**

### **Overview**

Under its National Science Foundation (NSF) INCLUDES pilot grant, the Association of Public and Land-grant Universities (APLU) will undertake activities aimed at becoming a national alliance to help its members **increase the number of STEM faculty at APLU member institutions from underrepresented and traditionally underserved groups: women, members of minority racial and ethnic groups, persons with disabilities, and persons from low-socioeconomic backgrounds**. INCLUDES is the NSF acronym for (Inclusion across the Nation of Communities of Learners of Underrepresented Discoveries in Engineering and Sciences). The program aims to create alliances and partnerships to broaden participation in the STEM workforce by improving access to STEM education and career pathways at a significant national scale.

The APLU's INCLUDES pilot project will connect member institutions and expert partner organizations to learn and work in concert to expand the diversity of STEM faculty through three objectives:

- Develop a set of diagnostic tools and practices to help institutions more effectively recruit, hire, retain, and support faculty from traditionally underrepresented populations within STEM.
- Identify and begin implementation of a series of transformative institutional activities aimed at increasing participation along the STEM pathways toward the professoriate in order to grow a more diverse pool of STEM students who can eventually become professors.
- Evaluate the adequacy and coverage of current data sources and metrics available to track the progress and success of STEM students from entry into postsecondary education through the professoriate.

Drawing on literature and projects supported by the NSF, APLU will bring together leading scholars, national partners, and senior university leadership to develop and enact suites of evidence-based and emerging practices to accomplish its three objectives. Capitalizing on its history of convening its members and stimulating their action, APLU will extend current

understanding of innovative promising practices to broaden participation of traditionally underserved populations within STEM disciplines. APLU's project will increase the understanding of how these transformative activities can be leveraged by multiple institutions to achieve a sustained and collective impact. This project promotes a pathways approach; emphasizing repeated exposure and multiple routes to the STEM professoriate versus a more static and linear pipeline model. Finally, this project will increase understanding and evidence base for implementing transformative activities that when used together may be shown to result in gains that are greater than the results of their individual implementation.

Together, APLU's more than 230 members constitute virtually all U.S. public research universities. Public research universities prepare and award 65% of the nation's science and engineering doctorates and APLU members employ 1.2 million faculty and staff. Thus, APLU's proposal to increase the diversification of STEM faculty has the potential for several significant broader impacts. First and foremost, despite limited success in increasing the pool of diverse faculty candidates, many researchers have argued the lack of transformation to institutional hiring practices continues to limit the representation of diverse populations within postsecondary faculties. Findings and promising practices resulting from APLU's project to develop and pilot transformative hiring practices to broaden participation in the STEM faculties will be disseminated publicly and are likely to be widely adopted by APLU's members and the greater postsecondary community.

Additionally, broadening the participation of traditionally underserved populations in STEM faculty careers will facilitate an increased interest and success of STEM students from underrepresented groups through experiences with a more nationally representative faculty. This collaborative approach engages senior APLU-member institutional leadership to work together to achieve collective broadening participation goals within and across multiple institutions.

### **Partners**

APLU has assembled a group of national partners that have agreed to work with the association during the pilot program. These organizations all have strong records of success in distinct portions of the STEM pathways. Many of the partners are already working with networks of multiple institutions to broaden their impact, while others are experts in a particular key area with potential for expansion.

***The American Association for the Advancement of Science.*** The American Association for the Advancement of Science (AAAS) is the largest general science organization in the world. AAAS Education and Human Resources staff run programs for science students and professionals to nurture talent, build careers, and build the STEM workforce. Dr. Shirley Malcom, Director, Education and Human Resources Programs, will be the principal partner.

***The Center for the Integration of Research, Teaching, and Learning.*** The Center for the Integration of Research, Teaching, and Learning (CIRTL) is a preeminent organization

preparing the future STEM faculty. The current CIRTL Network comprises 46 diverse research universities, representing one-third of the Ph.D. production of the United States. Dr. Robert Mathieu, Professor of Astronomy at the University of Wisconsin, CIRTL Leadership Team, will be the principal partner.

***Collaborative on Academic Careers in Higher Education.*** The Collaborative on Academic Careers in Higher Education (COACHE), based at the Harvard Graduate School of Education, is a research-practice partnership working with universities to address issues of faculty hiring, support and satisfaction. Across the past decade, they have worked with over 250 colleges, universities, and systems, including dozens of NSF ADVANCE awardees and more than 80 APLU members. Dr. Kiernan Mathews, the Executive Director and Principal Investigator for COACHE, will be the principal partner.

***Big Ten Academic Alliance (formerly the Committee on Institutional Cooperation).*** The Committee on Institutional Cooperation (CIC) is a leading higher education consortium and includes the 14 members of the Big Ten Athletic Conference and the University of Chicago. Among many collaborative projects within CIC, two projects emphasizing the recruitment and progression of underrepresented minority candidates to faculty positions, are currently underway. Ms. Charity Farber, Senior Program Manager, will serve as the principal partner.

***The Council of Graduate Schools.*** The Council of Graduate Schools (CGS) is a national organization dedicated to the advancement of graduate education and research. It serves over 500 North American university members and its members are the principal source for preparation of faculty in this country. Dr. Suzanne Ortega, President, will serve as the principal partner.

***The Florida Education Fund's McKnight Doctoral Fellowship Program*** was founded in Florida to provide greater educational advancement for underrepresented groups. With support from McKnight Program, 521 doctoral students have earned their Ph.D.'s, with many now in faculty roles. Dr. Lawrence Morehouse, President and CEO, will serve as the principal partner.

***Southern Regional Education Board State Doctoral Scholars Program.*** The Southern Regional Education Board (SREB) is an organization of sixteen southern states dedicated to improving education levels through policy and practice. The SREB State Doctoral Scholars Program was initiated to address barriers in graduate education, to overcome them, and to diversify the faculty. Dr. Ansley Abraham, Director of the Doctoral Scholars Program, will serve as the principal partner.

***University of California Office of the President.*** University of California, Office of the President (UCOP) has launched many projects across its 10 campuses, including UC Recruit, a web-based recruitment system that significantly streamlines the faculty recruitment and application process by automating procedures that had previously been very labor-intensive. Dr. Susan Carlson, Vice Provost, Academic Personnel and Programs, will serve as the principal partner.