



Science and Mathematics Teacher Imperative

The Association of Public and Land-grant Universities (A·P·L·U) launched the Science and Mathematics Teacher Imperative in November 2008 to increase the number and diversity of high-quality middle and high school science and mathematics teachers in the United States.

In building the SMTI initiative, APLU has galvanized university leadership to action, sought to encompass the successful programs already in place on member campuses, sought to track progress with metrics and program assessments, and sought to collaborate effectively with national efforts of the education sector, private sector, and state and federal governments.



Today, SMTI encompasses 121 public research universities in 41 states—including 11 university systems. Combined, these institutions prepare more than 7,500 science and mathematics teachers annually—making it the largest STEM new teacher initiative in the country.

GALVANIZE UNIVERSITY LEADERSHIP TO STRENGTHEN COMMITMENT TO EXCELLENCE IN STEM TEACHING AND TEACHER PREPARATION

As part of their commitment to SMTI, 39 public research university and three university system presidents have pledged to at least double the number of science and mathematics teachers their institutions prepare annually. Even if severe state fiscal conditions force some revisions, these APLU-member universities are at the forefront of SMTI efforts to enhance science and mathematics teacher preparation.

INSTITUTIONS

Alabama A&M University
Ball State University
Boise State University
California Polytechnic State University, San Luis Obispo
California State University, Fresno
California State University, Fullerton
Colorado State University
Cornell University
Florida International University
Florida State University
Georgia State University
Indiana University-Purdue University Indianapolis
New Mexico State University
Northern Arizona University

San Francisco State University*
The University of Montana
The University of Memphis
University of Cincinnati
University of Colorado at Boulder
University of Colorado Denver
University of Georgia
University of Houston
University of Idaho
University of Illinois at Chicago
University of Kansas
University of Kentucky
University of Maryland College Park
University of Missouri – Kansas City
University of New Mexico
University of North Carolina at

Charlotte
University of North Texas
University of South Carolina – Columbia
University of South Florida
University of Tennessee, Knoxville
University of Texas at Arlington
University of Utah
University of Wyoming
Virginia Tech
Wichita State University

SYSTEMS

California State University System*
University of California System
University System of Maryland

DRIVE STRATEGIC IMPROVEMENTS TO TEACHER PREPARATION

The nation lacks a comprehensive source of information about effective programs and practices to prepare science and mathematics teachers. SMTI staff are developing an assessment instrument that will assist with identifying, describing and analyzing model practices in the preparation of science and mathematics teachers. Dubbed the Teacher Preparation Analytic Framework, development has been funded by grants from the Carnegie Foundation of New York and the National Science Foundation.

At the same time, SMTI is inspiring institutional change and strengthening science and teacher preparation under a \$1.5 million grant from the National Science Foundation. Twenty-six public universities are sharing institutional plans for strengthening science teacher preparation and engaging in the identification of common challenges as well as successful strategies and solutions.

TEACHING PERSONNEL NEEDS ASSESSMENT TOOL

One of the principal goals of SMTI is to help participating member universities respond to the needs of their states and the nation for science and mathematics teachers. SMTI staff are developing a set of online tools to outline the steps states can take to carry out a more precise and rigorous analysis of the supply and demand of science and mathematics teachers. This new tool is expected to launch in early 2010.

ABOUT THE ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES (A·P·L·U)

Founded in 1887, the Association of Public and Land-grant Universities (A·P·L·U) is an association of public research universities, land-grant institutions, and many state public university systems. A·P·L·U member campuses enroll more than 3.5 million undergraduate and 1.1 million graduate students, employ more than 645,000 faculty members, and conduct nearly two-thirds of all academic research, totaling more than \$34 billion annually. As the nation's oldest higher education association, A·P·L·U is dedicated to excellence in learning, discovery and engagement. For more information, visit www.aplu.org (Formerly known as NASULGC).