

News Release

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79 Public University Leaders Sign Letter to President Obama Pledging to Address National Shortage of Science and Mathematics Teachers

41 Public Research Universities Pledge to Double the Number of Graduates of Science and Mathematics Teacher Preparation Programs by 2015

WASHINGTON, DC (January 6, 2010) —Public research university leaders representing some 120 universities today pledged to address the national shortage of science and mathematics teachers through the Science and Mathematics Teacher Imperative (SMTI), sponsored by the Association of Public and Land-grant Universities (APLU), in a letter presented to President Barack Obama.

In the letter, signed by leaders from 79 public research universities or university systems, the university presidents and chancellors “pledged to substantially increase the number and diversity of high-quality science and mathematics teachers we prepare, and to build better partnerships among universities, community colleges, school systems, state governments, business and other stakeholders.”

Thirty-nine institutions and three university systems have also pledged to at least double the number of science and mathematics teachers graduated by 2015.

“Together, our institutions committing to the [Science and Mathematics Teacher Imperative](#) will strive to increase the number of new science and mathematics teachers we prepare to more than 10,000 annually by 2015, for an additional 7,500 new teachers over the next five years,” the university leaders wrote.

The letter concludes: “In sum, we are committed to addressing this critical national need for more and better science and mathematics teachers. Through SMTI we have come together to learn from leading innovative programs, define and assess the quality of our efforts, understand how to better partner with school systems, and challenge ourselves to improve relentlessly our activities.”

The letter was hand delivered to The White House by Lee T. Todd, Jr., president of the University of Kentucky; Bernadette Gray-Little, chancellor of the University of Kansas; William “Brit” Kirwan, chancellor of the University System of Maryland; Philip P. DiStefano, chancellor of the University of Colorado at Boulder; Peter McPherson, president of APLU; and Howard Gobstein, executive officer and vice president and co-director, Science and Mathematics Teacher Imperative at APLU.

“America’s leadership tomorrow depends on how we educate our students today, especially in science, math and engineering,” said President Obama. “That’s why I’m pleased to announce the expansion of our “Educate to Innovate” campaign today and applaud the several new partnerships launched that will help meet our goal of moving American students from the middle to the top of the pack in science and math achievement over the next decade.”

SMTI, launched by APLU in November 2008, encompasses 121 public research universities in 41 states and the District of Columbia—including 11 university systems. Combined, these institutions currently

prepare more than 7,500 science and mathematics teachers annually—making it the largest Science, Technology, Engineering and Mathematics (STEM) new teacher initiative in the country.

“Public research universities have a central role to play in educating science and mathematics teachers,” said APLU President Peter McPherson. “We enroll more undergraduate science, mathematics and engineering students than any other type of U.S. university and, moreover, many of our universities have large colleges of education. This combination is just right for public research universities to make a major contribution to meeting the call by President Obama and Education Secretary Duncan to raise American students to the top of the pack in science and mathematics achievement.”

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

University of Kentucky

“Our nation’s economic competitiveness is at risk if we are unable or unwilling to address the shortage of qualified science and mathematics teachers,” said Todd. “We must rebuild our ability to prepare the world’s most educated and scientifically and mathematically literate workforces if we are to continue among the world’s most secure and competitive economies. Recruiting and preparing new teachers and providing access to ongoing education research will be critical to solving our science and mathematics teacher challenge.”

The University of Kentucky and its partners are at the forefront of this effort with the Kentucky P20 Innovation Lab and a strategic plan and systemic alignment of curriculum from pre-school through graduate education. The plan includes recruiting and preparing STEM teachers, providing ongoing professional development, extensive education research and, significantly, translating research findings into the classroom.

University of Kansas

In Kansas, declining interest in teaching combined with high levels of attrition is posing a challenge as the current teaching force nears retirement.

“The education workforce in Kansas is rapidly graying, with many of our highly qualified teachers nearing retirement,” said Gray-Little. “Trends are combining to escalate the deficit of qualified science and mathematics teachers, leading us to wonder who will prepare the next generation of science and mathematics teachers who will in turn inspire future generations of science, technology, engineering and mathematics professionals.”

The UKan Teach program, sponsored by the KU Center for Science Education, in its first two years already has seen enrollment grow from 33 to 157 students. By 2014, the university projects enrollment of 430 students with an annual graduation rate of 120 science and mathematics teachers each year. The program is modeled after the nationally renowned UTeach program.

University System of Maryland

“Higher education has a critical responsibility in preparing a competitive workforce for the 21st century,” said Kirwan. “In Maryland, we have called upon both the public and private sector to develop a statewide agenda to address science and mathematics education.”

The University System of Maryland’s ambitious agenda includes tripling the number of highly qualified STEM teachers produced by the state’s 11 public universities from 120 to 360 by 2015. Also, \$20 million in National Science Foundation grants has funded professional development programs for biology, chemistry, physics, and earth/space science teachers; provided summer training opportunities in research laboratories at USM institutions; and enabled university faculty, graduate students and high school teachers to form learning communities to review curriculum and explore inquiry-based instruction in high schools and colleges.

University of Colorado at Boulder

The University of Colorado at Boulder stands alone in the breadth of its integrated campuswide STEM initiatives that transform the way undergraduate courses are taught. CU-Boulder’s Learning Assistant Program, replicated at 12 other institutions, has worked aggressively to recruit and prepare future K-12 science and mathematics teachers. To date, 444 STEM majors have participated in the program, helping to improve introductory courses in 10 departments and to impact more than 8,000 CU students each year.

CU-Boulder is also only one of 13 teacher education programs in the nation awarded a grant in 2007 by the National Math and Science Initiative (NMSI) to model its CUTeach program after the nationally renowned UTeach program. Additionally, Distinguished Professor and Nobel laureate Carl Wieman launched the Science Education Initiative in 2006 to incorporate research findings on effective science instructions in classrooms at CU-Boulder.

“In recent years, a good number of public research universities have begun to address the issue of science and mathematics education and teacher preparation,” said DiStefano. “Working through SMTI will enable our institutions to significantly impact science and mathematics education in our states and across the nation. It is a matter of economic security and global competitiveness.”

ABOUT THE ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

Founded in 1887, the [Association of Public and Land-grant Universities \(A•P•L•U\)](http://www.aplu.org) 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).

ABOUT THE SCIENCE AND MATHEMATICS TEACHER IMPERATIVE

The Association of Public and Land-grant Universities (APLU) launched the [Science and Mathematics Teacher Imperative \(SMTI\)](http://www.aplu.org) in November 2008 to increase the number and diversity of high-quality middle and high school science and mathematics teachers in the United States. 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.