

\$250 million for science and math education

—by Nick Anderson

President Obama announced a \$250 million public-private effort in January to improve science and mathematics instruction, so that the Nation can better compete in key fields with global economic rivals.

With funding from high-tech businesses, universities, and foundations, the initiative seeks to prepare more than 10,000 new math and science schoolteachers over five years and provide on-the-job training for an additional 100,000 science, technology, engineering, and math instructors.

It effectively doubles, to more than \$500 million, a philanthropic campaign for STEM education which Obama launched last November. Separately, the government spends about \$700 million a year on elementary and secondary education in the STEM (Science, Technology, Engineering, and Mathematics) fields through agencies such as NASA, the National Science Foundation, and the U.S. Department of Education. It is unclear, however, how much federal spending can grow in a time of rising budget deficits.

"There is a recognition we can't do everything," said John P. Holdren, director of the White House Office of Science and Technology Policy. "We really need all hands on deck from the private and the philanthropic sectors because the government can't foot the whole bill for this."

Business and government leaders have sounded alarms over science and math education in recent years as concern has mounted that the United States may be losing the technological edge that fueled its economy in the 20th century. The Nation's universities are still known as world leaders, but the performance of its K-12 schools has come under scrutiny. International math testing in 2007 found that U.S. fourth-graders trailed counterparts in some areas of Europe and Asia and that U.S. eighth-graders lagged behind those from a handful of Asian countries. Similar results were found in science.

To address the issue, Obama has sought to make science and math education a national cause. The \$4 billion "Race to the Top" federal grant competition for education reform funding gives states bonus points for proposals that stress STEM instruction. January's announce-

ment, described by administration officials and executives from businesses and foundations, shows a mobilization on several fronts.

Intel Corp., based in Santa Clara, Calif., and the Intel Foundation are committing \$200 million in cash and in-kind support over 10 years for expanded teacher training and other measures. For instance, the company will offer an intensive 80-hour math course to help U.S. elementary school teachers (who are usually generalists) to develop more targeted expertise.

"There's a lot of research that says if the teacher has that content knowledge, they can spark excitement," said Shelly Esque, Intel vice president for corporate affairs.

The Woodrow Wilson National Fellowship Foundation, a nonprofit organization in Princeton, N.J., will expand a program which places math and science teachers with advanced degrees in hard-to-staff schools in Indiana, Michigan, and Ohio. With \$40 million in foundation and state funding, the program will train 700 teachers over three years.

"We're really trying to be part of turning around the state, closing the achievement gap and having more kids go on to college," said Sterling K. Speirn, president and chief executive of the W.K. Kellogg Foundation, in Battle Creek, Mich., which is aiding the effort.

Other elements of the initiative include a \$13.5 million expansion of a university-based program called UTeach which aims to deliver 7,000 expert teachers by 2018; a commitment from public universities to prepare 10,000 math and science teachers a year, up from 7,500 annually; and efforts by NASA and PBS to promote effective math and science teaching.

"If we're going to be economically competitive and continue to innovate and create jobs, we have to get much, much better in STEM education," said Education Secretary Arne Duncan. "There's a huge sense of urgency." —<http://washingtonpost.com/education>.

For more information about the STEM Education Coalition go to <http://www.stemedcoalition>. To learn about the "Race to the Top" Competition, access: <http://www.whitehouse.gov/the-press-office/fact-sheet-race-top>