



Adopt national standards to help children compete

■ U.S. needs uniform goals to prepare lagging students

By ALAN I. LESHNER and JO ELLEN ROSEMAN

OFFICIALS in 46 states and the District of Columbia agreed June 1 to move toward uniform learning goals in reading and mathematics for children nationwide. The effort, led by the National Governors Association and the Council of Chief State School Officers, was applauded by U.S. Secretary of Education Arne Duncan.

Sadly, science was left out, and education leaders in Texas — along with Alaska, Missouri and South Carolina — have so far declined to support the plan.

A Texas Education Agency spokeswoman told Education Week that the state recently invested in new testing materials and textbooks, after approving revised English and math standards. Changing plans might cost up to \$3 billion, she said.

But the situation actually underscores what happens when each state adopts radically different educational standards. Publishers must create multiple versions of textbooks to reflect a hodgepodge of learning goals. Inconsistent expectations mean that a Texas student who excels in science might fall behind if the family moves.

It's a mistake to overlook the central role of science in every aspect of modern life, particularly the economy. From pre-school through high school, we need to teach science more effectively so that all students are prepared for the science- and technology-based 21st century economy. Virtually all future jobs will require at least some familiarity and comfort with science and technology.

We have to do better by children. Some 34 percent of all U.S. fourth graders, and 43 percent of eighth graders, scored below basic achievement levels in science on the U.S. Department of Education's most recent national report card. In a 2007 report, U.S. 15-year-olds ranked 21st among students in 30 developed nations, behind Iceland and ahead of the Slovak Republic, on the Programme

for International Student Assessment. Even among college freshmen, nearly 30 percent need remedial science and math classes.

Our top-performing science students are still among the world's elite. But other young people are lagging. That's bad for the U.S. economy: McKinsey & Co. consultants say that closing the science gap between U.S. and international students could have increased America's gross domestic product by \$1.3 trillion to \$2.3 trillion in 2008. Closing the racial gap in science scores among U.S. students might have added another half-trillion dollars, the firm reported.

One promising strategy for improving science-learning standards will soon be reintroduced by Sen. Chris Dodd, D-Conn., and Rep. Vernon Ehlers, R-Mich. Their SPEAK Act ("Standards to Provide Educational Achievement for All Kids") would encourage states to adopt national science standards set by the National Assessment Governing Board. With the No Child Left Behind Act due for revision,

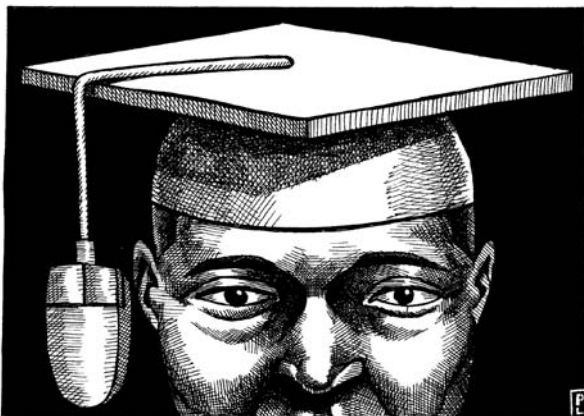
the SPEAK Act suggests an effective template for establishing science-education guidelines.

Preparing a science-literate workforce will require more than uniform standards. Adequate funding will also be key. Already, the government has begun to distribute \$100 billion in stim-

ulus funds to help schools build important programs, keep teachers on the job and modernize facilities.

America also must improve teacher pay and classroom support, provide consistently high-quality textbooks, and make science "cool" again. President Barack Obama, his education secretary and bipartisan leaders in Congress are showing leadership, but they need encouragement and support to persist.

Voluntary, nationwide education standards in science, along with reading and math, are the next logical step, promising dividends for tomorrow's workforce and for our economy. Texas should get on board, too.



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