



June 7, 2009

## Dick Riley: It's time to do school differently

*By Dick Riley*

As U.S. secretary of education, I often spoke of the importance of a quality math and science education to every student's learning experience. In those days, we talked about the need for every student to compete and succeed in the new information-based society.

Now, the stakes are even higher. Indeed, our future as a nation depends on our commitment to ensuring that every student — not just the select few — achieves far higher levels of math and science learning.

We've learned in this economic crisis that the old ways of doing business just don't work anymore. We know we must do banking differently; we must approach the business of making cars differently; we must see our place in the global community differently; and we must begin a renewed effort aimed at innovative reform of the education system for our students and for the future economic prosperity of this nation.

In short, it's time to "do school differently."

To do that, we have to ask ourselves, "What kinds of schools and systems of education are necessary to transform mathematics and science education and deliver it equitably to all students? And in doing so, we must begin a new journey to accelerate innovation at every level and jump-start our future.

One way to begin such a journey is with the facts. We know that changes in the global economy already are beginning to require the ability to analyze and problem-solve in ways we could not have even imagined a few decades ago.

In 2007, the Bureau of Labor Statistics projected that 54.7 million American jobs would open during the decade from 2004 to 2014, and that more than half of them would require a college degree. Of those jobs, the ones that are predicted to produce the highest wages are those that require the skills gleaned through quality math and science instruction in our public schools, as well as in our colleges and universities.

We also know that at the same time, in 2004, wage declines for those with only a high school education put this group below the middle 50 percent of family incomes in the United States for the first time since we began tracking such data.

I could cite a litany of statistics, but the evidence is clear and compelling. And "doing school differently" to respond to these changes must be built on a new, national mobilization that makes our collective advantage in the world our number one priority.

We must make certain that every man, woman and child in the United States has the science, technology, engineering and math skills to allow them to contribute to and gain from the country's future productivity, and to understand policy choices, and participate in building a sustainable future. These are skills essential to all, regardless of their chosen professional path.

We must take a closer look at schools that are succeeding and recognize that they are doing so because of high expectations for every student, effective engagement of students, parents and teachers, and a level of personalization that meets every student's learning style.

We have to replicate, where possible, the innovative, entrepreneurial approaches that are altering the marketplace for functions such as teacher recruitment, data management and professional development. These and other ways of doing school differently are changing the way many school districts do business and advancing the notion that old ways of carrying out core operations are not good enough.

We must insist that our colleges and universities are at the table as full partners to the K-12 community, that science rich institutions are fully accessed and integrated into core math and science curriculum, and that the business and philanthropic community are pushing math and science education to the fore at every opportunity.

And we must do all we can to bolster the efforts of the states and the U.S. Department of Education to develop common standards across the country, in order to ensure that students in every state are able to compete globally on a level playing field.

These are not new concepts. What must be new is the level of intensity with which we approach these new economic realities with focus on innovation, collaboration and mobilization at every level.

On Wednesday, the Carnegie Corporation of New York – Institute for Advanced Study Commission on Mathematics and Science Education will kick off this national mobilization and will hear from our bold new U.S. Secretary of Education Arne Duncan, as well as the business, philanthropy, labor, civic and education communities about new efforts aligned to our shared vision for American education.

The challenges we are facing demand transformational change at all levels — from the classroom to the boardroom and beyond. It's time for us to embrace this new understanding and get to work doing what we know we must to secure the future for every American family and community.

## Additional Facts

Dick Riley served as U.S. secretary of education from 1993-2001 and as governor of South Carolina from 1979-87. He is a member of the Carnegie Corporation of New York board of directors.

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