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9614 Hillview Drive • Dallas, Texas 75231-1527 • 630 215 4120 • rfoshay@world.oberlin.edu

## PRESS RELEASE

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### FOR IMMEDIATE RELEASE

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#### **STEM Is Generating a Lot of Smoke, But Is There Any Fire?**

Rob Foshay, PhD, CPT

WASHINGTON, DC, March 8, 2006: Concerns over global competitiveness are attracting considerable attention in Washington these days, and much of the discussion centers on America's inadequate supply of scientists and engineers. This, in turn, has led to a renewed focus on education in science, technology, engineering, and math (STEM). But, when it comes to STEM, is it true that where there's smoke, there's fire?

Maybe — but maybe not, according to a panel of experts convened by the Software and Information Industries Association (SIIA) for a policy briefing today. Panelists included Julia Warner, of the staff of rep. Vernon Ehlers (R-MI), Co-Chair of the House STEM Education Caucus; Susan Traiman, Director of Education and Workforce Policy of the Business Roundtable; and Jodi Peterson of the National Science Teachers Association and Co-Chair of the STEM Education Coalition.

Panelists agreed that awareness of the global competitiveness issue is at a tipping point, due in part to the influence of Tom Friedman's book, *The World Is Flat*, and partly to the realization that the American supply of scientists, engineers, and students in these fields depends on immigration; if that supply is cut off (as it was after 9/11), the domestic supply would be inadequate to meet the demand. Large companies are protecting themselves by establishing offshore research facilities, but small companies are feeling the pinch. However, projections of the labor shortfall are not reliable.

Discussions are still at an early stage in the Senate, and the issue has drawn relatively little attention so far in the House (perhaps because this is an election year). The Senate agenda on global competitiveness is being shaped by a National Academies report on STEM (*Rising Above the Gathering Storm*, available at <http://www.nap.edu/catalog/11463.html>) as well as by other policy studies. So far, four draft bills have been submitted. Most have bipartisan support. STEM education is part of the global competitiveness agenda in the Senate, but panelists agreed that the needs for improved STEM education at the K-12 level are not widely understood on the Hill. Panelists agreed that there is a need for local school districts and the public to educate their representatives on the needs for STEM education.

Despite the President's comments in his State of the Union address, the administration's priorities for education haven't changed: reading first (under NCLB), then math. Presumably, science ought to receive attention after the NCLB-required testing starts nation-wide in 2007-8. There is practically no talk about technology education at the secondary school level, nor is there a connection to funding of technology infrastructure in schools.

The panelists agreed that the STEM education initiative probably would not result in any major new programs. Instead, the over 200 existing programs (many from NSF), and the math research review panel (now in formation at US ED), would receive increased scrutiny with the intent of eliminating those programs that can't show results and expanding those programs that are showing success.

Panelists also agreed that the shortage of highly qualified STEM teachers at the K-12 level were not likely to be affected substantially by current efforts, such as the plan to train additional teachers for advance placement courses (now in the Senate's PACE bill), or the teacher programs at the National Labs (which only affect 300 teachers). There has been some talk, according the panel, of a differential pay scale for STEM teachers, but always with recognition of the controversial nature of the idea. One interesting development came from a Defense appropriations bill, which included a provision which some interpret as giving the Secretary of Education authority to define a standard for a rigorous high school science curriculum. However, novel approaches to teaching STEM curricula (such as use of games) face considerable skepticism unless they can demonstrate results through high quality research.

Panelists concluded that in the present deficit budget climate, STEM education initiatives would be funded only to the extent that they are able to compete for funding against other worthy priorities. So while the panelists agreed that the buzz surrounding STEM is substantial, none were willing to predict just what the impact would be on funding priorities in the current budget year or the next.

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