

# STATE STANDARDS AND CURRICULUM: BRIDGING THE GAP

## **HIGH SCHOOL MATHEMATICS TRAJECTORIES:**

### **CONNECTING OPPORTUNITIES TO LEARN WITH STUDENT PERFORMANCE**

Neelam Kher, William Schmidt, Richard Houang, and Zhiwen Zou, April 2007

This study is part of a comprehensive (K-12) mathematics and science reform initiative focusing on high school mathematics curriculum. Students' opportunities to learn mathematics content in two geographically diverse school districts were studied to determine if these are linked with student performance in mathematics. All high school students and their mathematics teachers in both districts provided data for this study. Preliminary findings suggest that different curriculum content trajectories offer very different opportunities to learn within and between school districts, and that these differing opportunities to learn content are linked to levels of student performance in mathematics.

## **PRESCHOOL CURRICULUM: WHAT'S IN IT FOR CHILDREN AND TEACHERS**

Albert Shanker Institute, 2009 (IN POCKET)

Education Secretary Arne Duncan recently indicated that the quality of preschool education would be considered in the competition for the Race to the Top funds. This recent report from the Albert Shanker Institute discusses how the research into how young children learn can help to improve the quality of preschool programs.

## **TIMSS RESULTS PLACE MASSACHUSETTS AMONG WORLD LEADERS IN MATH AND SCIENCE**

Massachusetts Dept. of Elementary and Secondary Education, December 09, 2008

### **BRIGHT SIGN FOR TECH IN MASS.: SCIENCE, MATH PUPILS NEAR TOP INTERNATIONALLY**

James Vaznis, *The Boston Globe*, December 10, 2008

Massachusetts students significantly outperformed their peers nationwide on the 2007 TIMSS, a prestigious math and science exam, putting the state on an elite international tier. In many cases, the state's impressive showing put Massachusetts in the same league with Hong Kong, Taiwan, and Singapore—academic heavyweights that have long made US policy-makers fearful of losing an economic competitive edge. The results mirror the state's strong showing on national standardized tests in math and science.

## **MSU SCHOLARS HELP MINNESOTA BECOME GLOBAL LEADER IN MATH**

Michigan State University, December 9, 2008

### **STANDARDS HELP MINNESOTA VIE WITH TOP NATIONS**

Sean Cavanagh, *Education Week*, January 21, 2009

One of only two U.S. states to participate in the 2007 TIMSS assessment, Minnesota was found to be scoring at or near the level of many of the highest-performing countries on that exam, and its scores in some categories have jumped significantly since it first took part in 1995. Officials credit the setting and refinement of academic standards (a process that was helped by Michigan State University scholars)—as well as efforts to translate them for teachers—as prime factors behind the progress.

**MINNESOTA MATH AND SCIENCE TEACHER ACADEMIES**  
SciMathMN

**MINNESOTA TIMSS: EVIDENCE WE ARE MOVING IN THE RIGHT DIRECTION**  
Mike Lindstrom, SciMathMN

These materials from SciMath MN include a brief slide presentation and a description of a new statewide teacher professional development program.