Texas

TECHNOLOGY COUNTS 2008

STEM

The Push to Improve Science, Technology, Engineering, and Mathematics

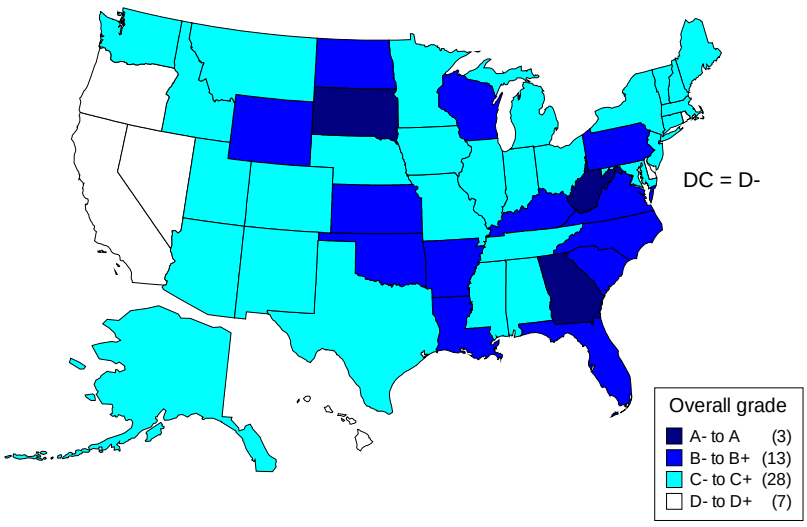
A Special State-Focused Supplement to *Education Week*'s
Technology Counts 2008

EPE RC RESEARCH CENTER

Overall Grade on State Technology Leadership

The nation earns a grade of C-plus for leadership in technology policy and practice, based on an analysis of the 50 states and the District of Columbia. West Virginia earns the only A, while Georgia and South Dakota receive A-minus marks.

Most states demonstrated relatively uneven performance across the areas of access, use, and capacity.



Student Performance in STEM Subjects

	Texas State Average	Texas State Rank	National Average
Achievement Levels			
4th grade math – Percent proficient on NAEP (2007)	40.2%	24	38.6%
8th grade math – Percent proficient on NAEP (2007)	34.7%	21	31.0%
4th grade science – Percent proficient on NAEP (2005)	25.2%	31	27.0%
8th grade science – Percent proficient on NAEP (2005)	23.1%	33	27.3%
Achievement Gains			
4th grade math – Scale score change on NAEP (2003-2007)	+5.0	26	+5.1
8th grade math – Scale score change on NAEP (2003-2007)	+8.8	2	+4.1
4th grade science – Scale score change on NAEP (2000-2005)	+4.7	8	+4.3
8th grade science – Scale score change on NAEP (2000-2005)	+0.4	14	-0.6
Poverty Gap (National School Lunch Program, noneligible vs. eligible)			
Math gap – 8th grade NAEP scale score (2007)	22.5	21	26.0
Science gap – 8th grade NAEP scale score (2005)	26.7	30	28.1
Math-gap change – 8th grade NAEP (2003-2007), negative value = closing gap	-1.3	25	-2.4
Science-gap change – 8th grade NAEP (2000-2005), negative value = closing gap	+0.2	27	-3.5
Achieving Excellence			
4th grade math – Percent advanced on 4th grade NAEP (2007)	5.2%	25	5.5%
8th grade math – Percent advanced on 8th grade NAEP (2007)	6.9%	24	6.6%
4th grade science – Percent advanced on 4th grade NAEP (2005)	2.3%	24	2.3%
8th grade science – Percent advanced on 8th grade NAEP (2005)	2.3%	29	2.9%

Teachers With Majors in Assigned Fields (2003-04)

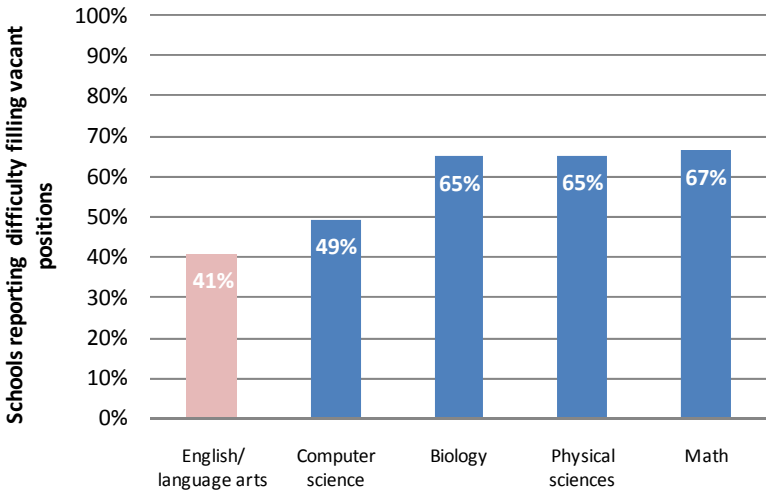
	Texas State Average	Texas State Rank	National Average
Math teachers – Percent in grades 7-12 who majored in math	63%	26	61%
Science teachers – Percent in grades 7-12 who majored in science	80%	17	77%

Note: Teachers with majors in math education or science education were not included in these figures.

Filling STEM Teaching Positions a Challenge: A National Perspective

About two-thirds of schools with vacancies in biology, physical sciences, or math reported difficulty filling those posts.

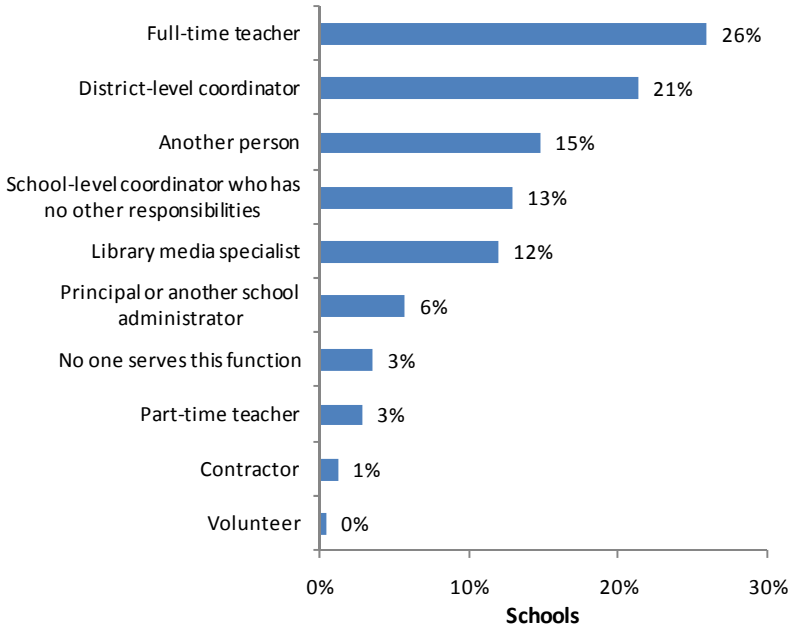
By contrast, only 41 percent of schools experienced difficulty filling English/language arts positions.



SOURCE: EPE Research Center analysis of data from the U.S. Department of Education's Schools and Staffing Survey 2003-04

Technology Assistance for Classroom Teachers

Teachers receive assistance in using technology from a variety of different individuals. In about one-quarter of schools, teachers receive most of their technology help from another full-time teacher. District-level coordinators offer the bulk of support in 21 percent of schools. Principals and school administrators are the main source of this assistance in only 6 percent of schools.



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