



NEWS Texas/Southwest

Texas study finds 39 model high schools in math, science

Common traits include larger class sizes, more certified teachers

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AUSTIN – A select group of Texas high schools – including eight in the Dallas area – is chalking up impressive results in math and science by utilizing slightly larger classes and paying teachers in those subjects more money than other teachers, according to a report released Wednesday.

The study by the Texas Public Policy Foundation, a conservative think tank, examined scores on several major tests – the TAKS, ACT, SAT and Advanced Placement exams – to come up with 39 high schools that have been largely successful in teaching math and science to their students.

Many of the schools have a large percentage of low-income students and enrollments range from rural and small (148 pupils) to urban and very large (4,872 pupils).

Researchers for the foundation, which is influential with state Republican leaders, conducted the study to identify the "best practices" that the high schools have in common so they can be shared with other schools.

Citing lackluster math and science performance in Texas high schools, the report said it is fortunate that "a number of Texas high schools are shining examples of places where students are achieving success in math and science."

Using standardized test and college entrance exam data from the Texas Education Agency, researchers noted that the 39 schools not only scored well in math and science, but also demonstrated "significant gains" over time. A total of 28 campuses were cited for math achievement and 29 for science achievement – including 18 that did well in both subjects.

Jamie Story, lead researcher, said the test score results also were adjusted for student body demographics, percentage of limited English-speaking students and geographic location. One of the "best practice" high schools has a student body that is nearly 85 percent low income.

Two Dallas high schools on the list – Carter and Wilson – have student bodies that are about 55 percent low income. Turner High School in Carrollton, also on the list, is 56 percent low income.

Among the common characteristics of the 39 best practice schools are:

- Class size – all had slightly larger classes in math and science – about 10 percent more students – than the average high school class in those subjects. That translated into an extra two to three students per class.
- Teacher pay – Math and science teachers at best practice schools typically earned about \$3,000 a year more than other teachers at their schools. School districts paid those supplements using incentive pay or special stipend programs.
- Teacher certification – all had a high percentage of teachers certified in math and science. Only 3.8 percent of math teachers were teaching out of their field – compared with 14.3 percent statewide – and only 1 percent of science teachers were out of field – compared with 28 percent statewide.
- Spending per student – The best practice schools annually spent an average of \$994 per student less than the state average – cited in the study as \$7,229. The schools also spent more of their funds on instruction (68.4 percent) than the statewide average (57.8 percent).
- TAKS preparation – time spent preparing for the annual Texas Assessment of Knowledge and Skills was about half that of the average school in Texas. Best practice schools also targeted TAKS preparation to low-performing students.

The foundation also made a series of recommendations that researchers said can be implemented by school districts under current law. They included greater use of stipends to pay math and science teachers, and new district policies that reduce the amount of class time spent on TAKS preparation.

Richard Kouri of the Texas State Teachers Association said the finding that most of the schools have a high percentage of certified math and science teachers may be the most critical of all the best practices cited in the report.

"It all starts with having certified math and science teachers," he said.

BEST PRACTICE HIGH SCHOOLS, DALLAS AREA

School	District	Subject
Carter	Dallas	Math

Science & Engineering	Dallas	Math
Wilson	Dallas	Science
Creekview	Carrollton-FB	Math
Turner	Carrollton-FB	Math and Science
Berkner	Richardson	Science
Richardson	Richardson	Math and Science
Lewisville	Lewisville	Math

*Based on test scores on TAKS, ACT, SAT and AP exams

SOURCE: Texas Public Policy Foundation