



Kentucky losing math numbers game

By Jim Waters

A learning gap in school leads to a success gap in life.

So take a look at student math scores from Paducah to Pikeville. You won't like what you see. And it's getting worse.

The math performance of students across the commonwealth since the introduction of the much-ballyhooed Kentucky Education Reform Act in 1990 resembles the downward slopes of the triangles I wrestled with in Mr. Leach's freshman geometry class.

In 1992, Kentucky fourth-graders served up a math-proficiency rate on the National Assessment of Educational Progress only 4 percent less than the national average. The size of that gap now: 8 percent.

Even the Kentucky School Boards Association, a group not known for rocking the boats of overpaid, incompetent "educrats," gets it. The association issued a statement supporting Senate Joint Resolution 19, which addresses key failures of Kentucky's approach to teaching math.

In its statement of support, the association wrote that "narrowing and deepening content standards to ensure crucial knowledge" is needed to "prepare our students for the 21st Century workforce and competition in the global economy."

The Senate resolution addresses a big problem. For years, faux-mathsters hiding out in Kentucky classrooms have been teaching students everything but the basics. This adds up to 35 percent of recent high school graduates being required to take remedial math classes in Kentucky colleges and universities.

The resolution, approved by the Senate Education Committee, directs the Kentucky Department of Education to revamp math standards so that students learn, for example, how to do long division in their pointy little heads — without the help of calculators.

"Countries that perform the best on all the international tests don't take the mile-wide, inch-deep approach Kentucky has used for many years," said Richard Innes, education analyst for the Bluegrass Institute. "Instead they focus, focus, focus to make sure kids learn the basics before moving on."

Singapore offers a good example.

Alice Gabbard of the Kentucky Center for Mathematics told senators that while Singapore standards only cover little more than half of the material on the International Math and Science Test, that country's students have some of the world's best math scores.

Gabbard said that the Kentucky's system emphasizes teaching as many "big ideas" as quickly as possible. But it doesn't ensure students get the basics to support those big ideas. After all, how can students succeed in algebra if they don't know their multiplication tables?

Beyond scores, psychologists find that students who do well in math early on are more likely to become successful scientists and engineers.

Research in the October issue of *Psychological Science*, a trade journal, followed the careers during a 25-year period of 1,500 youths who scored in the top 1 percent in math on the SAT. Those scoring the highest on the SAT math test showed the most scientific creativity as adults – earning patents or writing peer-reviewed scientific publications.

Let's do the math: We've got psychologists, the school boards association, a math expert and the state Senate saying that revising math standards to ensure students learn the basics makes sense — and other countries do it successfully.

So why isn't this happening in Kentucky? The answer is as simple as 2+2: the bureaucracy is dragging its feet. Elaine Farris, Kentucky's interim education commissioner, told reporters that she agrees with the concept of the Senate resolution, but "we would need a lot more time."

It just doesn't add up: The gaps continue to multiply, yet education leaders want "a lot more time" to fix the problem.

Frustrated at the lack of results from the state's education bureaucracy, Senate leaders are willing to use the force of government to get the commissioner and the state board of education to do what they should have already done – a long time ago.

— *Jim Waters is director of policy and communications for the Bluegrass Institute, Kentucky's free-market think tank. Reach him at jwaters@freedomkentucky.com. Read previously published articles at www.bipps.org.*