

A close-up portrait of a young boy with short brown hair and freckles, looking directly at the camera with a neutral expression. He is wearing a white polo shirt with orange and blue stripes on the collar. On his head is a tall, white, conical paper hat. Printed in black, bold, sans-serif capital letters on the front of the hat is the text "WISCONSIN FALTERS". The background is a blurred outdoor setting with green foliage and a light-colored wall.

WIS  
CON  
SIN  
  
FAL  
TERS

## Economic growth is tied closely to a math-smart culture. This is a problem for the Badger State.

By Eric A. Hanushek and Paul E. Peterson

The nation was transfixed in 2011 when Gov. Scott Walker pushed for major changes in the pay and benefits of public employees, resulting in massive protests at the Capitol. Publicly, the motivation for this was the state's precarious fiscal situation, but the subtext was a move to change the collective bargaining rights of public employees — notably teachers. The media quickly focused on the battle that pitted the governor and his legislative allies against the current employees of the schools.

But that was perhaps the wrong way to view the situation. Little to no mention was made of the state of those schools. Between 1992 and 2011, the improvement in achievement by Wisconsin students was the fourth worst of the 41 states for which data are available.

In that relatively short time, Wisconsin moved from sixth to 14th in the rankings. This signaled a fundamental set of problems ranging from the future earnings of Wisconsin students to the growth and prosperity of the entire state.

And, yes, it has ramifications for the nation as a whole.

The import of achievement for long-run economic outcomes is the subject of our new book, *Endangering Prosperity: A Global View of the American School*. Along with Ludger Woessmann, our colleague from Munich, we have considered not only the performance of the United States from an international perspective but also the position of each state. To understand the implications of achievement for the citizens — and especially the children — of Wisconsin fully, we begin with the national story.

Since the 1960s, researchers have developed the capacity both to measure achievement of U.S. students and to ascertain how this compares to students in other countries. These assessments jointly tell an alarming story. Only 32 percent of U.S. high school students are proficient in math, according to the National Assessment

of Educational Progress, often called “the nation’s report card.” More startling, this puts us in 32nd place in the world among political jurisdictions surveyed by the Program for International Student Assessment.

The percentage proficient in Germany, for example, is 45 percent; in Canada, it is 49 percent; and in Singapore, the highest performing independent nation, it is 63 percent.

The story carries over to the top end of achievement. We have all heard of the need to expand and deepen our STEM education — science, technology, engineering and math. The United States has led the world in innovation, and this in turn has made our country rich. But the percentage of high-achieving math students in the United States — and in most individual states — is shockingly below that of many of world’s leading industrialized nations.

All that might be mere cocktail chatter were math skills not so critical for the nation’s economic productivity. Variations in math and science skills translate into dramatic differences in economic growth rates.

We’ve simulated what would happen to the U.S. gross domestic product if we improved student achievement over the next 20 years to levels currently seen in our international competitors. The chart on Page 28 traces the

Between 1992 and 2011, the improvement in achievement by Wisconsin students was the fourth worst in the nation.