

Education

Is more physical education at school linked to higher student math scores?

By **Perry Stein** February 9

The amount of time students spend doing physical activity in school appears to be linked to higher standardized math scores in D.C. schools, according to a new American University study that examined the success of the city's [Healthy Schools Act](#) and found that schools offering more physical activity had significantly better math success.

The law, passed in 2010, requires D.C. public and public charter schools to adhere to requirements for what food must be served and how much physical activity should be built into each school week. The schools received funding as part of the legislation and were required to report how they implemented the program.

“This finding demonstrates that students’ academic performance improves when there’s a balance between time spent on physical education and time spent on learning,” said Stacey Snelling, dean of American University’s School of Education.

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Since the Healthy Schools Act was passed, the District’s schools have been [required](#) to incrementally increase the amount of physical education offered to elementary and middle school students each year. In the 2014-2015

school year, elementary school students should have received an average of at least 150 minutes per week, while middle school students should have received an average of at least 225 minutes.

Schools across D.C. struggled to meet those targets for physical education, but those that provided about 90 minutes each week saw higher standardized math scores, according to the report.

The study divided the city's elementary schools into four groups based on how much physical education they offered: the lower 25 percent, lower-middle 25 percent, upper-middle 25 percent and upper 25 percent.

The researchers then took the average DC CAS math proficiency score from the 2012-2013 school year for each of these four groups and found that schools offering more physical activity posted higher math scores. The upper 25 percent had an average of 151 minutes of physical education and saw an average math proficiency rate of 56.66. The lower 25 percent had an average of 29 minutes of physical education per week and an average math proficiency rate of 47.53. Some of the findings also were published in the academic journal *Appetite*.

Sarah Irvine Belson, one of the authors of the report, said schools offering the most amount of physical education time are distributed relatively evenly throughout the District and are not clustered in wealthier neighborhoods.

Researchers graded each school on how it implemented various aspects of the legislation — including building school gardens, serving healthy lunches and offering ample physical education time — on a 33-point scale. They found that, despite socioeconomic differences, there were no significant variations in how schools performed on the 33-point-scale across the District's eight wards.

The researchers said there are limitations to the findings: The data is based on schools' self-reporting, which leaves room for error, and many schools have opened and closed during the five-year study period, yielding some data inconsistencies.

The D.C. Healthy Schools Act was passed to combat the area's obesity rate, which varies greatly by ward. In Ward 3 — a wealthier area in the upper northwest part of the District — there was an obesity rate of 11.8 percent in 2012, [according to](#) government data. In Ward 7, a poorer ward east of the Anacostia River, the obesity rate was more than 36 percent.

D.C. Council member Mary M. Cheh (D-Ward 3), who authored the original 2010 legislation, applauded the report's findings Tuesday, adding that although schools effectively provided more nutritious lunches, there is still more room for more physical activity.

“When children are fed and they are not hopping all around because their hungry, they’re better learners, and that’s translated throughout,” Cheh. “I was impressed with the findings.”

Perry Stein covers D.C., Maryland and Virginia.
