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## DID SCHOOL LUNCH REFORMS HELP CURB INCREASES IN CHILDHOOD OBESITY RATES?



School lunches shouldn't make kids unhealthy or overweight. But they did. Now, a [new study](#) suggests that the 2010 federal Healthy Hunger-Free Kids Act and the momentum leading up to it may have helped put a stop to that by reducing calories and increasing nutritional levels for the meals served via the 77-year-old National School Lunch Program.

Conducted by [Therese Bonomo](#) and NEPC Fellow [Diane Whitmore Schanzenbach](#), both of Northwestern University, and published in May as a working paper of the National Bureau of Economic Research, the study examines how changes in the nutritional quality of school meals between 1991 and 2010 may have impacted obesity among students who attended kindergarten in 2010 and grade 5 in 2016.

“The National School Lunch Program (NSLP) serves meals to over half of the nation’s school-aged population each school day, so improvements to the nutritional quality of school meals could have important impacts on obesity,” the researchers write.

Bonomo and Schanzenbach found that between 1998-99 and 2009-10, the average number of calories in elementary school lunches declined by five percent (37 calories each day). For middle school lunches, the decline was three percent (22 calories each day). The number of calories in high school meals remained the same. Interestingly, the researchers also found that low-poverty schools served higher-calorie meals than high-poverty schools.

The 2010 Healthy Hunger-Free Kids Act called for changes in the nutritional content of the

meals, with an emphasis on serving lean proteins, a variety of vegetables, whole grains, and lower-sodium food. Bonomo and Schanzenbach note that the amount of saturated fat and cholesterol in school meals did in fact decline.

Although the new standards led to [highly-publicized complaints](#) about unappetizing and uneaten food, researchers subsequently found that food waste abated over time.

Students who qualify for free or reduced-price meals differ in important ways from those who do not. Since their meals are very low-cost or free, it can be challenging to find an adequate comparison group of otherwise similar peers who qualify for free/reduced-price lunch but still bring food from home. To address such challenges, Bonomo and Schanzenbach restricted their main analysis to comparing outcomes for students who eat school meals even though they do not qualify for free or reduced prices with non-qualifying peers who bring lunch from home. The federal data they draw upon contains body weight and height measurements taken by school staff.

A [previous study](#) by Schanzenbach, published in 2009, found that, for non-poor students who started kindergarten in 1998-99, eating school meals (as opposed to bringing lunch from home) was associated with a two percentage point annual increase in the odds of becoming obese in elementary school.

By contrast, the more recent analysis found no statistically significant association between eating school meals and becoming obese.

“In recent years, the growth in obesity rate among 6 to 11 year-olds has leveled off, after climbing rapidly between 1980 and 2000,” Bonomo and Schanzenbach note. They continue:

It is possible that changes in the school lunch program have contributed to this flattening. While our data do not allow us to speak directly to the [Healthy Hunger-Free Kids Act] reforms and their role in changing the quality of school meals, we find some direct evidence that school meals became healthier over our study time period, as measured by calories and other dietary metrics, prior to the implementation of [the reforms] . . . [T]his evaluation of recent impacts of the school lunch program suggests that recent changes to the program have reversed the earlier, troublesome relationship between school lunch participation and obesity.

Bonomo and Schanzenbach emphasize the need for further research. For example, their study did not include middle or high school students. Nor did their analysis extend to the pandemic years, when [Centers from Disease Control and Prevention data](#) suggests, among 2- to 19-year-olds, body mass index increases nearly doubled relative to the pre-pandemic period, as children stayed home to avoid getting sick or spreading the virus.

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