

RESEARCH BRIEF #22

May 12, 2020

Let Them Eat Lunch: The Impact of Universal Free Meals on Student Performance

Amy Ellen Schwartz and Michah W. Rothbart

Maxwell Syracuse University

The National School Lunch Program (NSLP) is the second largest nutrition assistance program in the U.S., subsidizing over 30 million meals each school day at a federal cost of \$14 billion annually. Traditionally, NSLP provides free or reduced-price meals for eligible low-income students. A growing number of schools (and districts) have adopted "Universal Free Meals" (UFM), providing free lunch and breakfast for all students, regardless of income. This brief summarizes the findings from our recent research on the impact of extending free school lunch to all students, regardless of income, on academic performance in New York City (NYC) middle schools.

KEY FINDINGS

- Universal Free Meals (UFM) increases school lunch participation among middle school students from both poor <u>and</u> non-poor families.
- UFM improves test scores in English language arts and math.
- There is no evidence that UFM has negative effects on student weight. There is some evidence that UFM reduces obesity.

We used longitudinal student data from New York City public schools to estimate the effect of UFM on obesity and academic achievement among middle school students. We found that UFM improves educational outcomes for middle school students. Specifically, UFM leads to significant increases in school lunch participation and improved English language arts and math test scores, especially for kids from non-poor families. We also found suggestive evidence of improved weight outcomes.

UFM increases school lunch participation for kids from both non-poor and poor families

Findings for kids from non-poor families suggest price matters for students whose families have household incomes exceeding 185 percent of the federal poverty line. Findings for the poor—who largely would experience no direct change in price—suggest that stigma plays a role in school lunch participation decisions as well. As for unintended consequences, there is no evidence that the reduction in the price of school lunch leads to a decrease in participation in school breakfast due, perhaps, to a substitution effect. (Breakfast was already free in NYC public schools.)

UFM increases test scores for kids from both non-poor and poor families

Results point to positive effects of UFM on the test scores of middle school students—from both poor and non-poor families—with the largest increases for students from non-poor families. The positive impacts on test scores among kids from non-poor families suggest that even students who are not certified eligible for free or reduced-price meals may face budget or nutritional constraints that limit academic performance (at least in high-cost cities like NYC). See Figure 1.

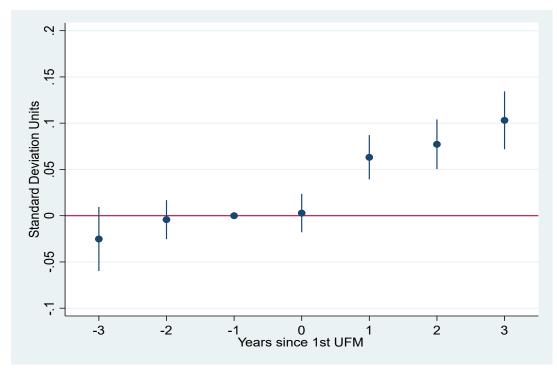


Figure 1. In the years after Universal Free Meals (UFM) adoption, math scores increased

Data: Sample is 222,481 NYC public school students who attended middle school (grades 6-8) in 2010-2013. Data includes observations for these students between grades 3 and 8 (2007-2013). Notes: The Y-axis shows the regression adjusted mean performance standardized by grade and year. The X-axis shows the years before and after first UFM exposure. Error bars represent 95% confidence intervals. The model includes controls for student limited English proficiency, special education status, student grade level, and year.

There is No Evidence that UFM Increases Obesity

We found no evidence that UFM or school lunch participation itself increases student weight, or the incidence of obesity, overweight, or even underweight. Instead, the preponderance of negative, but largely insignificant, coefficients on obesity, overweight, and BMI models suggest possible improvements in obesity and weight outcomes due to UFM and NSLP.

Recommendations for Policy and/or Practice

Our evidence from NYC suggests UFM is an inexpensive and effective way to improve academic achievement among urban schoolchildren. District and school leaders nationwide should consider adopting this program. Recent policy changes to the NSLP make it easier for districts and schools to adopt UFM under the Community Eligibility Provision of the Healthy, Hunger-Free Kids Act of 2010. State officials may want to remove barriers (such as fiscal constraints) that block local officials from doing so.

Data and Methods

This study draws on rich longitudinal student- and school-level data, for all NYC public elementary and middle school students from 2010 to 2013 and student-transaction-level data on meal participation for a large subset of students. We use changes in student exposure to UFM over time to estimate the impact of UFM on academic achievement, school lunch participation, and weight outcomes. For specific details about the data and the modeling approach, please see the full publication here.

References

- 1. U.S. Department of Agriculture, Food and Nutrition Service. (2018). Federal cost of school food programs. Washington, DC. Available at https://fns-prod.azureedge.net/sites/default/files/pd/cncost.pdf.
- Schwartz, A.E. & M.W. Rothbart. 2019. Let them eat lunch: The impact of universal free meals on student performance. *Journal of Policy Analysis and Management*. https://doi.org/10.1002/pam.22175.

Acknowledgements

The authors acknowledge support from The Tufts/UConn RIDGE Program and the National Institutes of Health, Eunice Kennedy Shriver National Institute of Child Health and Human Development (grant 5R01DK097347-02). The authors thank the NYC Department of Education for providing data and for their support, especially the Office of School Food, Dennis Barrett, Stephen O'Brien, and Armando Taddei. For data support, advice, and suggestions, they thank Meryle Weinstein, Emily Gutierrez, Zac McDermott, Siddhartha Aneja, Michele Leardo, Sarah Cordes, Joanna Bailey, and Brian Elbel. The authors also thank seminar participants at the University of Connecticut, the University of Virginia, the University of Hong Kong, the Andrew Young School at Georgia State University, the Maxwell School at Syracuse University, Federal Reserve Bank of Cleveland, Federal Reserve Bank of New York, and participants at the APPAM, AEFP, and NTA conferences for useful comments on previous drafts. The opinions expressed are those of the authors and do not represent views of the National Institute of Health, the U.S. Department of Agriculture, or the NYC Department of Education.

About the Authors

Amy Ellen Schwartz is a Professor of Economics, Public Administration and International Affairs and the Daniel Patrick Moynihan Chair in Public Affairs at the Syracuse University Maxwell School of Citizenship and Public Affairs. (amyschwartz@syr.edu) Michah W. Rothbart is an Assistant Professor of Public Administration and International Affairs at the Syracuse University Maxwell School of Citizenship and Public Affairs. (mwrothba@syr.edu)

The mission of the Lerner Center for Public Health Promotion at Syracuse University is to improve population health through applied research and evaluation, education, engaged service, and advocating for evidence-based policy and practice change.