

Recognizing and Supporting School Meal Programs as a Critical Nutrition Safety Net: Lessons from COVID-19

Research Brief, January 2022

Introduction

The provision of healthful school meals to youth nationwide through the United States Department of Agriculture (USDA) National School Lunch (NSLP) and School Breakfast Programs (SBP) plays an essential role in protecting children's nutritional health and in addressing food insecurity,¹⁻⁸ particularly for school-aged children living in poverty. These programs are a critical component of the U.S. nutrition safety net. They serve nearly 30 million U.S. children, most of whom qualify for free or reduced-price meals (FRPM) based on their household income.⁹

School closures due to the COVID-19 pandemic, however, significantly disrupted children's access to school meals in 2020 and 2021.¹⁰⁻¹² School food service authorities (SFAs), which are responsible for planning, sourcing, preparing, and serving school meals, had to rapidly convert their usual on-site meal service operations to more flexible and mobile strategies to distribute meals to students directly in the community. These changes were enabled by a series of Congressionally authorized waivers of several program requirements through USDA.*

This switch to community-wide, mobile distribution of meals resulted in unprecedented challenges for SFAs as they balanced efforts to keep workers safe and distribute as many meals as possible. This also resulted in substantial financial losses. The main source of revenue for SFAs is USDA meal reimbursements (i.e., payments for meals served) and declines in meal service during COVID-19 led to declines in revenue.¹²

Understanding the strategies SFAs used to implement community distribution programs for school meals and identifying what kinds of support are needed for success can inform better planning for future crises that may cause disruptions to school meals. This understanding may also shed light on ways to improve implementation of this critical safety net program during regular, non-disaster operations. This brief summarizes the results from a mixed-methods (qualitative and quantitative) study¹³ that investigated how food service directors from 12 of the largest SFAs in the United States tackled the challenge of providing school meals when school was out and how this "stress test" on the school meal system revealed ways to potentially strengthen the financial model for SFAs in the future.



*To learn more about the specific waivers, please visit: <https://frac.org/wp-content/uploads/nationwide-waivers.pdf>

The Evidence

This study used both qualitative and quantitative methods. Open-ended interviews were conducted with representatives from 12 of the largest urban school food service programs in the country. Key themes were identified related to how these programs implemented school meals during school shutdowns. Detailed financial data was also collected to quantitatively analyze how costs and revenues changed during the pandemic. These two approaches were combined to examine whether qualitative themes about implementation were linked with better or poorer financial health.

Key findings from the analysis follow:

- 1. School food authorities had to contend with an incredibly complex task** that entailed figuring out how to take their typically single-site meal service operations and shift them into meals-to-go distribution mechanisms, while keeping staff COVID-safe and attempting to meet the needs of multiple stakeholders at the same time. They did this all while often being locked into pre-existing vendor contracts that allowed them limited flexibility to innovate and shift what they were serving.
- 2. There was no one-size-fits-all approach to maximize the ability of school meal programs to reach families in need.** Districts tried multiple strategies to provide meals (such as setting up multiple community sites and using buses or vans to drop off meals at delivery points), but in some cases they could not overcome structural barriers that made it difficult for families to pick up meals (such as neighborhood safety concerns or parental work hours).
- 3. A lack of communication and coordination with other community organizations providing meals sometimes led to competing efforts.** Similarly, with the introduction of Pandemic Electronic Benefit Transfer (P-EBT) benefits to FRPM-eligible families, which distributed the cash value of missed school meals on EBT cards to be used by individual families to purchase food at grocery stores, SFAs reported seeing even fewer families utilizing meals-to-go.
- 4. Determining the free or reduced-price meal eligibility of each child showing up for a meal during community distribution added unnecessary complexity** and also resulted in prolonged interpersonal contact at a time when the risk of COVID-19 transmission was high. When the requirement to determine eligibility was removed via a USDA waiver allowing programs to serve meals to all children under 18 regardless of income status (in May of 2020), districts reported a much more seamless delivery of meals.



We were called on a Friday afternoon at about 4:00 p.m. and told that the school district was closing and that Monday morning we needed to open up and we needed to be able to feed families. So we had just about 48 hours to change our whole method of distribution.”

“The first part was really trying to pivot and get prepackaged meals that we could then package in bundles to hand out every day. We couldn’t even pivot to the once a week or two-to-three-day model because the logistics of the volume of it was just too high. We either have to double or triple the number of sites open in order to get the volume to do more packages in fewer days. And that we couldn’t do. Because at the time, it was just too risky to have that many staff members working and we wanted to limit our exposure.”



Funding needs to be probably looked at a little differently. You kind of got your regular mode of what you’re doing, like if you have a captive audience, but if you don’t have a captive audience when it’s crisis emergency mode, we got to be able to pivot quickly to say, ‘We just need you to fund us for our expenses.’ I mean, obviously, we’re going to try with the help of whomever else. Right. But this current per meal model is awful. It’s awful for this crisis. It just doesn’t work.”



You’re just like, we’re going to work through this. I have a positive attitude, right? We going to work through it. I don’t know how yet. But the thing is we’re going to feed kids and we don’t want to turn people away.”

5. Increased debt due to reduced reimbursable meals.

The urban SFAs in this study saw increased debt during the pandemic, but not because of extra expenses (such as increased personal protective equipment (PPE) or higher food costs). Instead, SFAs were faced with a ballooning average cost per meal due to their need to bear the same overall operating costs as pre-pandemic, while at the same time having drastically reduced numbers of meals taken (Figure 1). Meanwhile, USDA reimbursements for each meal taken, which are the majority source of revenue for urban districts, only increased slightly. During regular school years, the participating districts regularly broke even; but during the pandemic, this mismatch between expenses per meal and reimbursements per meal meant the programs experienced increased debt (Figure 2).

6. School food service directors' and team members' passionate commitment to making sure their students were fed and to promoting healthier nutrition for their students helped to buffer school food service staff against the stressors of operating during the pandemic, both financial and logistical. School food service directors see themselves as critical to the nutrition safety net—and they are.



Figure 1.

Changes in median meals (breakfasts and lunches) served per student per week across 12 large urban districts during COVID-19.

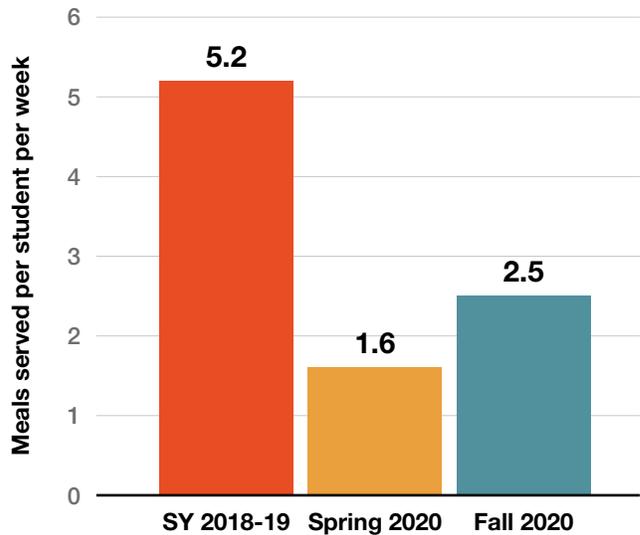
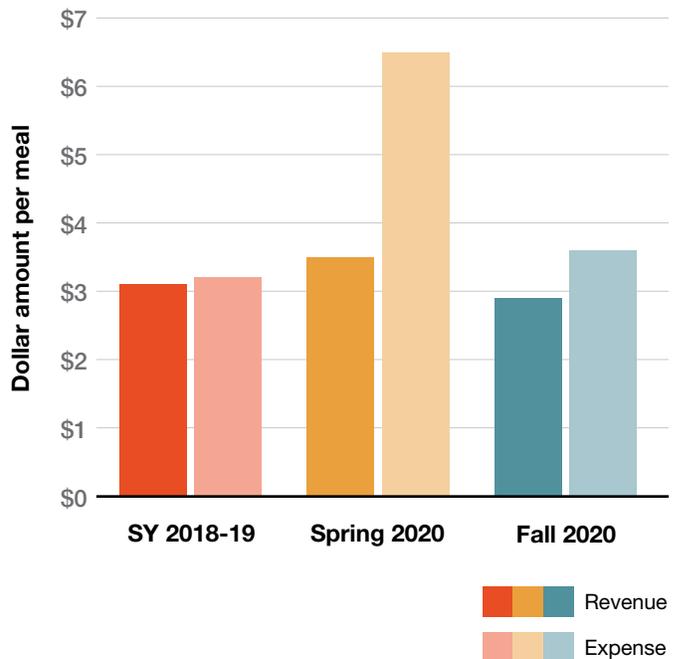


Figure 2.

Comparison of median revenues and expenses per meal across 12 urban districts, before and during COVID.



Conclusions

School food service programs are a linchpin of the federal nutrition safety net, providing crucial nutritional support to tens of millions of U.S. youth. While our study's findings are limited by our small, targeted sample of large urban school districts, and thus cannot be used to draw conclusions about the specific and unique challenges that may be faced by suburban and rural districts, several conclusions can be drawn from this analysis:

- The funding structure of school meal programs needs to be reviewed to ensure that these critical safety net programs are adequately supported.
- Additionally, as other researchers have suggested,^{14,15} national, tribal, territorial, and state emergency declarations, school closure announcements, and emergency preparedness plans should develop clear guidance for SFAs to distribute school meals in community settings. These plans should incorporate the voices and perspectives of SFA leaders. Such plans should involve coordination between SFAs and other entities that provide emergency food service during disasters, such as food pantries and other charitable food organizations.
- Finally, these plans should outline how to estimate likely meal service needs and costs and ensure financial support when SFA meal service declines; in particular, plans should estimate declines in school meal uptake that are likely to occur when P-EBT benefits are distributed.

Policy Implications

As we face potential disruptions to school meal service in the future (due to other pandemics or natural disasters), ensuring that school food authorities are adequately prepared and supported to implement their school meal delivery programs efficiently and safely will be critical for both children's health and preserving the functionality of these programs. The following congressional actions are recommended to support the distribution of healthy school meals during crises:

1. Support the development of model national, tribal, territorial, and state emergency declarations, school closure announcements, and other disaster preparedness plans for future pandemics or other crises that disrupt access to school meals.
2. Foster year-round coordination between school meal programs and other charitable food distribution organizations within communities, including communication and outreach specific to natural disaster situations.
3. Authorize SFAs to distribute free meals to all children at the start of a disaster. The requirement to check income eligibility during a crisis adds unnecessary complexity and increases the risk of transmission of pathogens between individuals.
4. Authorize changes to the financial model of school meal programs so that they are not solely dependent on meal reimbursements. SFAs' ability to serve as critical safety net programs is compromised when they have no financial safety net. Because SFAs are currently expected to raise their own revenue entirely through selling meals or getting reimbursed for meals, they cannot weather financial shocks brought on by declines in meal service.

Key findings from the study



Revenue only covered half of operating expenses during COVID-19 due to dramatic declines in meal uptake and reimbursements

Financial challenges



Reliance on per-meal reimbursement for operating budget



Unable to recoup additional emergency costs



In most cases, prohibited from reducing staffing levels



Minimal forms of other financial support (e.g., grants)

Implementation challenges



Rapidly shift from standard operations of preparing fresh food to serving shelf-stable food



Limited and late guidance from USDA, resulting in poor communication to families



Quickly develop innovative strategies for distribution



Meet the needs of stakeholders with sometimes conflicting priorities



Keep food service workers and students safe



Lack of flexibility in pre-pandemic food vendor contracts

Opportunities



- ✓ Adopt universal school meals
- ✓ Use a funding model that does not rely solely on per-meal reimbursements for revenue
- ✓ Strengthen communication between school food directors and other actors within the emergency food system to foster a cohesive and coordinated approach
- ✓ Develop a comprehensive disaster management plan for nutrition and charitable food programs

Author/Reviewer Names and Affiliations

Prepared by: Erica L. Kenney, ScD, MPH^{1,2}; Sheila Fleischhacker, PhD, JD, RDN³; Jane Dai, MPH⁴; Rebecca S. Mozaffarian, MPH, MS¹; Katie Wilson, PhD, SNS⁵; Jeremy West, SNS⁵; Ye Shen, MSPH⁴; Caroline G. Dunn, PhD, RDN^{3,6}; Sara N. Bleich, PhD³

1. Department of Nutrition, Harvard TH Chan School of Public Health, 665 Huntington Ave, Boston, MA 02115
2. Department of Social and Behavioral Sciences, Harvard TH Chan School of Public Health, 677 Huntington Ave, Boston, MA 02115
3. Georgetown University Law Center, 600 New Jersey Ave, NW, Washington, DC 20001
4. Department of Health Policy and Management, Harvard TH Chan School of Public Health, 677 Huntington Ave, Boston, MA 02115
5. Urban School Food Alliance, 1612 K Street NW, Suite 200, Washington, DC 20006
6. Health Resources and Services Administration, U.S. Department of Health and Human Services

Suggested Citation

Kenney EL, Fleischhacker S, Dai J, Mozaffarian RS, Wilson K, West J, Shen Y, Dunn CG, Bleich SN. Recognizing and Supporting School Meal Programs as a Critical Nutrition Safety Net: Lessons from COVID-19. Durham, NC: Healthy Eating Research; 2022. Available at: <https://healthyeatingresearch.org>.

Funding Acknowledgement

This study was funded by Healthy Eating Research, a national program of the Robert Wood Johnson Foundation through a special rapid-response research opportunity focused on COVID-19 and the federal nutrition programs to inform decision-making regarding innovative policies and/or programs during and after the COVID-19 pandemic.

References

1. Gundersen C, Kreider B, Pepper J. The Impact of the National School Lunch Program on Child Health: A Nonparametric Bounds Analysis. *J Econom*. 2012;166(1):79–91.
2. Fox MK, Gearan E. School Nutrition and Meal Cost Study: Summary of Findings. 2019. Available from: https://fns-prod.azureedge.net/sites/default/files/resource-files/SNMCS_Summary-Findings.pdf
3. Liu J, Micha R, Li Y, Mozaffarian D. Trends in Food Sources and Diet Quality Among US Children and Adults, 2003-2018. *JAMA Netw Open*. 2021 Apr;4(4):e215262.
4. Kenney EL, Barrett JL, Bleich SN, Ward ZJ, Craddock AL, Gortmaker SL. Impact of the Healthy, Hunger-Free Kids Act On Obesity Trends. *Health Aff (Millwood)*. 2020 Jul;39(7):1122–9.
5. Johnson DB, Podrabsky M, Rocha A, Otten JJ. Effect of the Healthy Hunger-Free Kids Act on the Nutritional Quality of Meals Selected by Students and School Lunch Participation Rates. *JAMA Pediatr*. 2016 Jan;170(1):e153918.
6. Kinderknecht K, Harris C, Jones-Smith J. Association of the Healthy, Hunger-Free Kids Act With Dietary Quality Among Children in the US National School Lunch Program. *JAMA*. 2020 Jul;324(4):359–68.
7. Au LE, Gurzo K, Gosliner W, Webb KL, Crawford PB, Ritchie LD. Eating School Meals Daily Is Associated with Healthier Dietary Intakes: The Healthy Communities Study. *J Acad Nutr Diet*. 2018 Aug;118(8):1474–1481.e1.
8. Schwartz AE, Rothbart MW. Let Them Eat Lunch: The Impact of Universal Free Meals on Student Performance. *J Policy Anal Manag*. 2020;39(2):376–410.
9. NATIONAL SCHOOL LUNCH PROGRAM: PARTICIPATION AND LUNCHESES SERVED. Washington, DC; 2019. Available from: <https://fns-prod.azureedge.net/sites/default/files/resource-files/slsummar-12.19.pdf>
10. Dunn CG, Kenney E, Fleischhacker SE, Bleich SN. Feeding Low-Income Children During the Covid-19 Pandemic. *N Engl J Med*. 2020 Apr;382(18):e40.
11. Kinsey EW, Hecht AA, Dunn CG, Levi R, Read MA, Smith C, et al. School Closures During COVID-19: Opportunities for Innovation in Meal Service. *Am J Public Health*. 2020 Nov;110(11):1635–43.
12. School Nutrition Association. School Nutrition Meals Served and Reimbursements During the COVID-19 Pandemic. Arlington, VA; 2021. Available from: https://schoolnutrition.org/uploadedFiles/News_and_Publications/Press_Releases/Press_Releases/School-Nutrition-Meals-Served-and-Reimbursements-During-the-COVID-19-Pandemic.pdf
13. Kenney EL, Dunn CG, Mozaffarian RS, Dai J, Wilson K, West J, et al. Feeding Children and Maintaining Food Service Operations During COVID-19: A Mixed Methods Investigation of Implementation and Financial Challenges. *Nutrients*. 2021;13(8). Available from: <https://www.mdpi.com/2072-6643/13/8/2691>
14. Patten EV, Spruance L, Vaterlaus JM, Jones M, Beckstead E. Disaster Management and School Nutrition: A Qualitative Study of Emergency Feeding During the COVID-19 Pandemic. *J Acad Nutr Diet*. 2021 Apr.
15. McLoughlin GM, Fleischhacker S, Hecht AA, McGuirt J, Vega C, Read M, et al. Feeding Students During COVID-19-Related School Closures: A Nationwide Assessment of Initial Responses. *J Nutr Educ Behav*. 2020 Dec;52(12):1120–30.

About Healthy Eating Research

Healthy Eating Research (HER) is a national program of the Robert Wood Johnson Foundation. Technical assistance and direction are provided by Duke University under the direction of Mary Story PhD, RD, program director, and Megan Lott, MPH, RDN, deputy director. HER supports research to identify, analyze, and evaluate environmental and policy strategies that can promote healthy eating among children and prevent childhood obesity. Special emphasis is given to research projects that benefit children and adolescents and their families, especially among lower-income and racial and ethnic minority population groups that are at highest risk for poor health and well-being and nutrition related health disparities. For more information, visit www.healthyeatingresearch.org or follow HER on Twitter at [@HERResearch](https://twitter.com/HERResearch).

About the Robert Wood Johnson Foundation

For more than 45 years the Robert Wood Johnson Foundation has worked to improve health and health care. We are working alongside others to build a national Culture of Health that provides everyone in America a fair and just opportunity for health and well-being. For more information, visit www.rwjf.org. Follow the Foundation on Twitter at twitter.com/rwjf or on Facebook at facebook.com/RobertWoodJohnsonFoundation.



Robert Wood Johnson Foundation