

Jena Wallander
February 18, 2018

Review of the Literature

Public Health Significance

Regular breakfast consumption has been associated with improved mental performance, psychosocial and behavioral health, and academic achievement in school age children (Victoria et al, 2008). The literature has measured mental performance in a variety of ways. A 2012 study noted enhanced “neural network activity involved in processing numerical information” when children ate breakfast (Pivik et al). School breakfast consumption has been associated with improved attendance, reductions in depression and anxiety, and decreased school nurse visits (Hartline-Grafton, 2017). Additionally, consistent consumption via school breakfast was associated with significant academic achievement and increases in nutrient intake (Frisvold, 2015).

20% of United States children were living in poverty in 2016, and 13% of U.S. households from 2013-2016 were food insecure (Food Research and Action Center, 2016). Food insecurity plays a major role in children obtaining the nutrients they need for health and well-being. According to Gu and Tucker, children of low-income families have decreased access to healthy food outside of school (2016). Participation in school meals such as the School Breakfast Program and National School Lunch program have been shown to reduce food insecurity and lifted 1.3 million people above the poverty line in 2016 (Hartline-Grafton, 2017). Provision of school breakfast has the potential to reduce food insecurity in these populations in two ways: first, students that participate ensure morning food consumption; and second, the

school's role in providing the meal frees parents or caregivers financially to provide food outside of school hours (Fletcher and Frisvold, 2017).

History of National School Lunch and School Breakfast Programs

Before the creation and implementation of what is known today as the National School Lunch Program (NSLP) in 1946, school feeding programs were implemented at the city and community level, and programs varied from school to school (Gunderson, 1971). By 1921 in Chicago, all the city-area high schools and 60 elementary schools were implementing school feeding programs via the Chicago Board of Education, with a reported 31,000 meals served to students daily (Gunderson, 1971). In the 1930's states and school boards started to shift to providing lunch at no cost or reduced cost to low-income students: depression-era financial impacts led to an increase of low-income students both unable to pay for school meals and also without access to healthy meals at home, which lead to widespread national concerns about malnourishment (Gunderson, 1971). At the same time, decreased demand for agricultural products was causing large commodity surpluses, and at this point the United States Government took federal action to solve these two problems (Gunderson, 1971). In 1936, the United States Department of Agriculture (USDA) began purchasing surplus commodities and diverting them to schools and other federal assistance programs (Gunderson, 1971). The program expanded rapidly into the 1940's but did see significant utilization declines due to the economic boosts from World War II (Gunderson, 1971). Further declines were prevented by additional federal expenditure expansion enacted into law throughout the 1940's and the shift to cash subsidization for products; however, these expansions were enacted on a yearly basis and not viewed as sustainable (Gunderson, 1971).

The National School Lunch Act (NSLA) of 1946 was the first comprehensive federal child nutrition program enacted by legislation in the nation's history: it established the program's permanence and established the schools' roles in guiding nutrition education for students and their families by requiring provision of school meals that met dietary standards of the time (Gunderson, 1971). Schools participating in the program had to meet several federal guidelines:

- (1) Serve lunches meeting the minimum nutritional requirements prescribed by the Secretary;
- (2) Serve meals without cost or at reduced cost to children who were determined by local school authorities to be unable to pay the full cost of the lunch, and not to segregate or discriminate against such children in anyway;
- (3) Operate the program on a non-profit basis;
- (4) Utilize as far as practicable the commodities declared by the Secretary to be in abundance and to utilize commodities donated by the Secretary; [and]
- (5) Maintain proper records of all receipts and expenditures and submit reports to the State agency as required.

Gunderson, 1971

In 1962, the NSLA was amended to allocate funding to schools based on student participation rate in school lunch programs per state and on an "assistance need rate" for states with a high amount of low-income families (Gunderson, 1971).

The Child Nutrition Act (CNA) of 1966 further amended and expanded the NSLA and also established a free and reduced price pilot school breakfast program. Schools were selected for the program on the basis of "extreme need" (Gunderson, 1971), and also established in this legislation was the provision that students could not be segregated based on an inability to pay for the meal (Gunderson, 1971). The CNA also consolidated authority and provision of the program to be fully administered by the USDA (Gunderson, 1971). In 1969, President Johnson

established the USDA Food and Nutrition Service, a subset agency of the USDA to administer federal child nutrition programming (Gunderson, 1971).

After the initial pilot program in the 1960's, school breakfast was expanded and specific meal reimbursement was adopted in 1973 ("School breakfast program," 2013). In 1975, the School Breakfast Program (SBP) received official federal authorization as an entitlement program ("School breakfast program," 2013). Over the years, the program was expanded to address growing participation.

The Healthy Hunger-Free Kids Act (HHFK) was landmark legislation passed in 2010 that significantly reformed federal child nutrition programs (USDA Food and Nutrition Service, 2017). It established updated nutrition guidelines for meals and requirements for schools to follow those guidelines to get reimbursed as well as establishing the Community Eligibility Provision (CEP), which allows qualifying schools to provide free meals to all of their enrolled students. CEP is an option available to schools, school districts (also called local education agencies or LEA's), or groups of schools within a school district. Schools and LEAs may apply for the CEP if they have 40% or higher identified students who qualify for free or reduced price meals (Illinois State Board of Education, 2016). Students qualify if their families receive food assistance through the Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF), or if the Illinois State Board of Education (ISBE) determines eligibility separately (Illinois State Board of Education, 2016).

Barriers to Breakfast and Breakfast after the Bell

In 2016, an average of 14.22 million children in the United States participated in the SBP daily (Food Research and Action Center, 2016). In Illinois for the 2015-2016 school year, 47.7%

of students eligible for school breakfast participated in school breakfast, below the national average of 56% (Food Research and Action Center, 2016). Though research has shown that students of all age groups do believe that breakfast consumption is better for their health and academic performance, they often cite lack of time as a barrier to eating breakfast (Hearst et al 2016; Reddan, Wahlstrom, & Reicks, 2002). Another barrier students cite is the fear of being stigmatized, as they associate the school breakfast programs as being provided for low-income students (Egner, Ozna-Frank, & Cunningham, 2014; Leos-Urbel et al, 2013). This stigma is compounded by “lunch shaming,” a practice in which schools punish children who do not have the money to pay for their meals (Lee, 2017). This practice has recently received attention and pushback from major media outlets, leading to legislation efforts to prohibit lunch shaming and mandating schools to have an established policy for these students. Though optional, the CEP is an important way to combat lunch shaming and the stigmas surrounding school lunch and breakfast. Another way to combat these barriers is providing breakfast after the bell.

In Illinois, schools that have 40% or higher eligibility must provide school breakfast, and schools that have 70% or higher eligibility must provide Breakfast After the Bell (BATB), in which schools provide the meal after official instruction time has begun (Illinois State Board of Education, 2016). There are several BATB delivery models that schools can utilize, and schools can also provide the meal before instructional time has begun. These models include “Grab and Go,” “Breakfast in the Classroom,” and “Breakfast after the First,” also known as “second chance.” The Grab and Go model provides the meal in bags or boxes that students can pick up and eat in the classroom or designated areas; Breakfast in the Classroom involves staff delivery of the meal to the classroom after instructional time has begun; and Breakfast after the First is a

model that prolongs breakfast serving time in the cafeteria into instructional time. Illinois schools that serve BATB do not have to utilize these models as long as they are serving after instructional time has begun, but they must notify families about the program before the school year has begun and throughout the school year (Illinois State Board of Education, 2016).

Research supports alternative breakfast delivery and universal free breakfast models, which would be provided to schools through the CEP. Innovative breakfast delivery models have been associated with improved attendance and improved math and reading achievement test scores (Hartline-Grafton, 2017). A 2013 study of the universal free breakfast model in New York City found reduced stigma associated with receiving school breakfast (Leos-Urbel et al). State mandates such as the ones in Illinois were also found to have an effect on increasing healthy food consumption and academic achievement (Frisvold 2015).

Gaps in the literature

Little is known still about the barriers to student participation in school breakfast. Studies have concentrated on rural areas, limiting generalizability. Limited research is available surrounding parent perceptions of school breakfast programs and again that research is concentrated on rural areas. Additionally, more research needs to be done focusing on the efficacy of alternative breakfast delivery models and their impact on academic achievement, cognitive performance, and school attendance, and there is limited research providing an evidence base for selecting one model over another. More research and evidence in support of these models could result in increased buy-in from schools and interest in alternative models as a way to support schoolchildren.

References

- Askelson, N. M., Golembiewski, E. H., Ghattas, A., Williams, S., Delger, P. J., & Scheidel, C. A. (2017). Exploring the Parents Attitudes and Perceptions About School Breakfast to Understand Why Participation Is Low in a Rural Midwest State. *Journal of Nutrition Education and Behavior, 49*(2). doi:10.1016/j.jneb.2016.10.011
- Egner, R., Oza-Frank, R., & Cunningham, S. A. (2014). The School Breakfast Program: A View of the Present and Preparing for the Future-A Commentary. *Journal of School Health, 84*(7), 417-420. doi:10.1111/josh.12164
- Fletcher, J. M., & Frisvold, D. E. (2017). The Relationship between the School Breakfast Program and Food Insecurity. *Journal of Consumer Affairs*. doi:10.1111/joca.12163
- Frisvold, D. E. (2015). Nutrition and cognitive achievement: An evaluation of the School Breakfast Program. *Journal of Public Economics, 124*, 91-104. doi:10.1016/j.jpubeco.2014.12.003
- Food Research and Action Center. *Illinois Demographics, Poverty and Food Insecurity* (Rep.). (2016). Retrieved <http://www.frac.org/wp-content/uploads/sos-il.pdf>
- Food Research and Action Center. *United States Demographics, Poverty and Food Insecurity* (Rep.). (2016). Retrieved <http://www.frac.org/wp-content/uploads/sos-us.pdf>
- Gunderson, G. (1971). (Rep.). Retrieved from <https://fns-prod.azureedge.net/sites/default/files/NSLP-Program%20History.pdf>
- Gu, X., & Tucker, K. L. (2016). Dietary quality of the US child and adolescent population: trends from 1999 to 2012 and associations with the use of federal nutrition assistance programs. *The American Journal of Clinical Nutrition, 105*(1), 194-202. doi:10.3945/ajcn.116.135095
- Hartline-Grafton, H. (2017, December). *The Role of the Federal Child Nutrition Programs in Improving Health and Well-Being* (Rep.). Retrieved <http://frac.org/wp-content/uploads/hunger-health-role-federal-child-nutrition-programs-improving-health-well-being.pdf>

- Hearst, M. O., Shanafelt, A., Wang, Q., Leduc, R., & Nanney, M. S. (2016). Barriers, Benefits, and Behaviors Related to Breakfast Consumption Among Rural Adolescents. *Journal of School Health, 86*(3), 187-194. doi:10.1111/josh.12367
- Lee, M. (2017). U.S. schools rethink 'lunch shaming' policies that humiliate children with meal debts. Retrieved from <https://www.pbs.org/newshour/education/u-s-schools-rethink-lunch-shaming-policies-humiliate-children-meal-debts>
- Leos-Urbel, J., Weinstein, M., Schwartz, A. E., & Corcoran, S. P. (2013). Not Just for Poor Kids: The Impact of Universal Free School Breakfast on Meal Participation and Student Outcomes. *SSRN Electronic Journal*. doi:10.2139/ssrn.1923972
- Philbin, E., & Rosso, R. (2018). *School Breakfast Scorecard: School Year 2016-2017* (Rep.). Retrieved <http://frac.org/wp-content/uploads/school-breakfast-scorecard-sy-2016-2017.pdf>
- Pivik, R., Tennal, K. B., Chapman, S. D., & Gu, Y. (2012). Eating breakfast enhances the efficiency of neural networks engaged during mental arithmetic in school-aged children. *Physiology & Behavior, 106*(4), 548-555. doi:10.1016/j.physbeh.2012.03.034
- Reddan, J., Wahlstrom, K., & Reicks, M. (2002). Childrens Perceived Benefits and Barriers in Relation to Eating Breakfast in Schools With or Without Universal School Breakfast. *Journal of Nutrition Education and Behavior, 34*(1), 47-52. doi:10.1016/s1499-4046(06)60226-1
- School Breakfast Program. (2013, July 26). Retrieved December 05, 2017, from <https://www.fns.usda.gov/sbp/program-history>
- Taylor, J. (2017). Trump administration rolls back Michelle Obama's healthy school lunch push. *National Public Radio*. Retrieved from <https://www.npr.org/2017/05/01/526451207/trump-administration-rolls-back-2-of-michelle-obamas-signature-initiatives>
- United States, United States Department of Agriculture Food and Nutrition Service. *Interim Final Rule: NSLP and SBP Nutrition Standards for All Foods Sold in School as Required by the Healthy, Hunger-Free Kids Act of 2010*. (2013). Retrieved from <https://www.fns.usda.gov/school-meals/fr-062813a>
- United States, United States Department of Agriculture Food and Nutrition Service. *School*

Meals. (2017). Retrieved January 20, 2018, from <https://www.fns.usda.gov/school-meals/healthy-hunger-free-kids-act>

United States, Illinois State Board of Education. *Frequently Asked Community Eligibility Provision (CEP) Questions*. Retrieved from https://www.isbe.net/Documents/nslp_hhfka_ceo_faq.pdf

United States, Illinois State Board of Education. *Illinois Free Lunch and Breakfast Programs*. Retrieved from https://www.isbe.net/Documents/IFL_student_eligible.pdf

United States, Illinois State Board of Education. (2016, August). *Illinois School Meal Service Requirements*. Retrieved from https://www.isbe.net/Documents/schools_mandated_Operate_sbp.pdf

United States, United States Department of Education, Office of Elementary and Secondary Education. *The Community Eligibility Provision and Selected Requirements under Title I, Part A of the Elementary and Secondary Education Act of 1965, As Amended*. (2015). Retrieved from <https://www.isbe.net/Documents/usde-guidance-cep.pdf>

Victora, C. G., Adair, L., Fall, C., Hallal, P. C., Martorell, R., Richter, L., & Sachdev, H. S. (2008). Maternal and child undernutrition: consequences for adult health and human capital. *The Lancet*, 371(9609), 340-357. doi:10.1016/s0140-6736(07)61692-4