

**Food Is Medicine: A Review of Current Government School Lunch**

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### **Abstract**

Nutritious school meals play a critical role in children's overall well-being along with several other factors like family consumption and peer influence. However, there are various problems associated with school lunches: the inability of low-income families to afford nutritious meals, insufficient funding for high-quality lunches, the need for more awareness about proper nutrition, and more. Although several national programs and governmental policies are promoting healthy lunches for child nutrition care, such as the National School Lunch Program (NSLP), School Breakfast Program (SBP), Special Milk Program (SMP), National Farm to School organization, and more, many public schools still do not provide nutritional meals and do not adhere to dietary guidelines, inevitably leading to substandard school food quality. Thus, there is a need for the federal government to consider allocating more funds to create an environment that promotes nutritious diets for youth while also providing oversight to the programs that already exist as they will improve the short-term and long-term health of students.

### **Keywords**

Nutrition, USDA, NSLP, SBP, school lunch, nutrition guidelines, statewide program, nationwide program

### **Introduction**

For all individuals, maintaining good health is of the foremost importance, and having a healthy body is an absolute gift beyond measure. In December of 2007, "Renegade Lunch Lady" Chef Ann Cooper raised her voice in a TED Talk about the need to improve school lunches, which was, and still is, a nationwide issue. Her premise argues that society needs to ensure that children understand the "symbiotic relationship between a healthy planet, healthy food, and healthy kids. And that if we don't do that, the antithesis, although we've heard otherwise, is

we're really going to become extinct because we're feeding our children to death" (Cooper, 2007, 00:50). She further asserts that despite several alternative ways for ensuring children's healthy balanced diets, educating and demonstrating exemplary meals through school lunches should be considered as a primary approach. With her unrelenting ambition to provide nutritious meals to youth in America since the early 2000s, Cooper persists as an active proponent for proper child nutrition in 2024 with her vision of "Healthy School Meals for All." However, one voice alone is not enough to enact lasting change in the current system. Today, federal spending for nutrition assistance care is \$26.9 billion (Economic Research Service, 2024b). According to the United States Department of Agriculture (USDA) Economic Research Service's inflation-adjusted expenditure graph on food and nutrition, funds have been increasing since 2007, when Ann Cooper first delivered her speech; yet, the allocated amount is still insufficient.

The United States has established a few federally funded meal programs in schools to help address the issue of school lunch and nutrition. In 1946, the National School Lunch Program (NSLP) was created under Harry Truman. It still operates today in more than 95,000 public schools and private schools, serving over 28 million students a day (School Nutrition Association, 2024). The School Breakfast Program (SBP), created to support students who are unable to eat breakfast at home, served over 14 million students a day in 2023, with over 11 million free breakfasts (School, 2024). The Special Milk Program provides milk to children in schools that do not participate in other federally funded meal service programs like the NSLP or SBP (Food and Nutrition Service, 2024b). Yet, many states still struggle to provide a nutrient-balanced meal in schools, and children frequently complain about the poor quality of food served daily.

The aims of this study are to outline nationwide and statewide policies regarding current school lunches in the U.S., identify problems within these current policies, and suggest possible solutions to the problems associated with the health of the students. Although children often only eat one meal per day at school, it is inextricably tied to their overall health. School is an active learning environment, and children learn to develop some of their dietary habits through the food they receive from the school cafeteria. Due to this connection between child health and school lunch, the federal government should evaluate the possibility of increasing governmental funding for school lunch programs and enforce stricter guidelines on nutritional intake.

### **Literature Review**

#### **Parameters of Review**

The study utilized search engines Google Scholar and PubMed for research study references and Google for the data collection of facts about governmental policies. The following keywords were used in the search process: nutrition, USDA, NSLP, SBP, school lunch, nutrition guidelines, statewide program, and nationwide program. Twenty-two articles and papers were assessed with six focusing on childhood, teen, and adult health and medical care. The remaining literature centered on school lunch in the United States. The four largest states by population, California, Texas, Florida, and New York, were specifically included in the review, through a study of their lunch programs.

#### **Three Substantial Problems in School Lunch**

As of now, in 2024, there are national regulations set by USDA for a mandatory half-cup serving of fruits of vegetables with every school meal, minimum amount of whole grains, low-fat milk, free water, and limits for calories, sodium, sugar, and unhealthy fat (Food and Nutrition Service, 2024c). Yet, there are still three substantial problems regarding the need for optimizing

nourishment in students. First, some students are from low-income families, so they cannot afford nutritious meals at school. Second, schools do not provide nutritional meals while following all the dietary guidelines the government sets because they have limited funds to support high-quality lunches. Third, students fail to acknowledge the importance of proper nutrition. The decision to focus on these three problems was derived from their strong connections to student well-being in an academic setting, which expanded to addressing the problems of governmental policies due to economic disparity. The first problem is gradually being resolved in many states, especially California, through an ongoing, pervasive policy of providing free lunches regardless of household income. However, the other two problems are yet to be addressed.

### **Current National Governmental Policies Regarding Nutrition and School Lunch**

Administered by the Food and Nutrition Service (FNS) of the USDA, “the National School Lunch Program (NSLP) is a federally assisted meal program operating in public and nonprofit private schools and residential child care institutions. It provides nutritionally balanced, low-cost or free lunches to [eligible] children each school day” (Food and Nutrition Service, 2024a, para. 1). Under this program, the eligibility for free or reduced-priced lunch depends on family household income. This policy successfully supports low-income families in affording meals at school without having to pay full prices. In addition, a School Breakfast Program (SBP) “provides low-cost or free breakfasts to children and typically operates in about 90,000 public and nonprofit private schools” (Economic Research Service, 2024a, para. 1). Similar to the NSLP, the SBP selects eligible students using the federal poverty line to support low-income families. The United States’ effort to support low-income families and decrease the economic gap continues beyond these federal programs. For the schools and childcare

institutions that do not participate in other federally funded programs, there is an alternative program that can be used for assistance. Special Milk Program “reimburses schools and institutions for the milk they serve” (Food and Nutrition Service, 2024b, para. 1). Milk is rich in calcium, which is essential for the bone development of growing children. Additionally, there are various nonprofit organizations that are dedicated to providing nutritious food to students in schools. For instance, a national nonprofit organization named National Farm to School Network, in which all 50 states and 65% of schools nationwide participate, aim to enrich “the connection communities have with fresh, healthy food and local food producers by changing food purchasing and education practices at schools and early care and education settings” (National Farm to School Network, 2021, para. 2). This organization envisions early childhood nutrition instruction and has the ability to enhance student understanding of the need for healthy nutrition. Overall, there are multiple nationwide governmental policies concerned with the health of adolescents, including the National School Lunch Program, School Breakfast Program, and Special Milk Program as well as nationwide organizations promoting healthy school lunches like the National Farm to School Network.

### **Current States School Lunch Policies in California, Texas, Florida, New York**

Using the National School Lunch Program (NSLP) as a cornerstone, many states are enacting further regulations on school lunches to ensure childhood nutrition. California, Texas, Florida, and New York, the four biggest states by population, were examined to assess the impact of state-regulated lunch policies on the largest body of students. Specifically, toward the end of the COVID-19 pandemic at the beginning of the 2022-23 school year, “California became the first state to provide free school meals to any child regardless of whether they were eligible for the free or reduced-price meals as defined by the federal government” (Pryor et al., 2024,

para. 2). Following the exemplary action taken in California, Maine, Massachusetts, and Vermont passed similar policies, making school meals available to every public student at no charge regardless of their household income (Food Research & Action Center, 2024). California has had a positive influence in the States, by demonstrating some positive effects of making lunch free to every student, like increased meal participation.

Texas also uses federal funds gained through the NSLP and SBP to support student meals administered by the Texas Department of Agriculture. They “approve payments and ensure that all meals meet nutritional guidelines” (Every Texan, 2023, para. 3). Similarly, the Florida Department of Agriculture and Consumer Services administers the NSLP and SBP. It “[ensures] that every child in Florida benefits from nutritious meals that foster better learning and a lifetime of good health” (Division of Food, Nutrition, and Wellness, 2020, para. 4). Unlike California, Texas and Florida do not provide free lunches for all public school students regardless of their household income. Currently, the majority of states pursue a similar approach to Texas and Florida, giving free meals solely to qualifying children.

In New York, “public schools offer free breakfast, lunch, and afterschool meals to all NYC public school students during the school year” and even during summer break with income verification for eligibility (NYC Public Schools, 2024a, para. 2). They also encourage food education at school through the Food Education Roadmap, a program promoting food education that ensures students have the knowledge to guide healthy lifestyles. Ironically, while pursuing free breakfast and lunch policies, New York City made budget cuts and “plans to trim \$60m from its school food budget every fiscal year until 2028” (Garza, 2024, para. 6). Eleven percent of New York City’s public school budget comes from federal funding. Within their total budget, \$600m goes toward school food (NYC Public Schools, 2024a). A \$60m budget cut is 10% of the

total budget. These cuts might put a strain on an already delicate system, forcing school districts to choose cheaper, “ultra-produced” options to fit within new budget constraints.

Overall, federal funding administered by USDA, which is separate from state funding, for child nutrition programs is increasing at a steady rate, and plans are progressing in many states. However, though all four plans in California, Texas, Florida, and New York are ideally impeccable in shaping healthy diets for students, in reality, they leave much to be desired.

### **Current School Lunch Policies’ Limitations**

While national funding for school meals has increased, many public schools still do not provide nutritional meals. Although they follow all the dietary guidelines the government sets, they have limited funds to support high-quality lunches. According to health and medicine reporter Lenny Bernstein, “weak rules and industry power have allowed ultra-processed products” like Lunchables on the school menu (Bernstein et al., 2023, para. 1). This incident occurred even after the NSLP was implemented, exposing the reality of school meals in certain parts of the U.S. Lunchables are plastic-packaged meal kits consisting of crackers cheese, meat, and a dessert. The article further states that “studies have suggested a link between ultra-processed food — industrially produced using additives that make food hyper-palatable — and obesity as well as chronic disease” (Bernstein et al., 2023, para. 11). If highly processed foods like Lunchables are included on the school lunch menu, students will not be conscious that processed foods harm people’s health. Also, it would increase their risk of developing chronic illnesses like type 2 diabetes as body fat accumulates (Levy et al., 2024). Higher ultra-processed food consumption is correlated with greater increases in adiposity, which refers to body fat, from childhood to early adulthood (Chang et al., 2021). Moreover, a 2021-2022 study of over 1000 K-12 parents in California found that “only 44% of parents perceived school lunches to be healthy,

however...a majority of parents surveyed said that school meals can save them money (81.6%) and time (79.2%) and also reduce their stress (75%)” (Gingerella, 2024, para. 4). These statistics suggest that parents choose to follow the lunch policies set by their school district because it is comfortable for them, rather than because it is nutritious and beneficial to their children's health.

They also reveal the reality that although there are guidelines and numerous efforts committed to organizing healthy lunches for students, it is unfeasible for all public schools in the U.S. to offer healthy lunches under the current budget. Even California, which is praised by others as a highly exemplary state for its school nutrition policies, still includes unhealthy processed foods: they select the menu based on the numerical data listed on the nutrition fact label, disregarding actual food quality. According to a report in August 2023 written by *Friends of the Earth* (2023, para. 4), as plant-based meals increased, “processed meat entrees [accounted] for nearly one-fifth (18%) of all entrées offered, an increase of 11% since 2019,...[and] more the half (57%) of all offerings on school menus [contained] cheese, and some of these are highly processed and include meat (e.g., pepperoni pizza).” This analysis illustrates the reality that even with policies in place to regulate healthy school meals, schools do not always offer healthier options. They are following the guidelines set in place, and selecting food that qualifies as nutritious based on the required policies, but not necessarily offering a healthy lunch. “It is time for USDA to provide more low-cost, culturally appropriate, fiber-rich, plant-based proteins that schools, nutrition teams, and students deserve,” says Kari Hamerschalg, Deputy Director of Food and Agriculture at Friends of the Earth (Friends, 2023, para. 8). In the future, it might be beneficial to have more oversight in the selection and spending process when implementing these policies, so schools can offer a healthy, balanced meal daily.

## **Preventive Medicine: Short-term and Long-term Benefits of Food Assistance and Education Programs**

Strengthening nutrition education with increased funds for balancing nutrients in meals is just as vital as overseeing federal or state-funded programs. By enhancing the education level of nutrition in students, their health will improve accordingly, preventing potential disorders and insufficiencies in advance. “A multilevel analysis of nutritional and health status among children and adolescents in eastern China” revealed a positive correlation between education and lower risks of micronutrient insufficiencies like vitamin A and hyperuricemia, suggesting that implementing health and nutrition education tailored to the living environment of school-age children and adolescents could be an effective approach to avoiding various health consequences (Tian, 2022).

Another study, “Effect of an education program on nutrition knowledge, attitudes toward nutrition, diet quality, lifestyle, and body composition in Polish teenagers,” suggests that proper nutritional intake with education fulfills its role as “preventive health care to promote normal growth and development of the young population and reduce the risk of diet-related diseases in adulthood by the early shaping of adequate dietary and lifestyle behaviors” (Hamulka et al., 2018, para. 1). These studies demonstrate that nutrition education can enhance adolescents’ health, due to a superior understanding of food and its relation to their bodies which enables them to make better decisions about their meals. Thus, nutrition education can yield short-term benefits in improving children’s health and long-term benefits in shaping an individual’s dietary and lifestyle patterns in a healthy way.

## **Discussion**

By evaluating problems in current school lunch policies, this study examines the efficacy of federally funded meal programs as well as specific policies implemented in the four biggest states by population, California, Texas, Florida, and New York. Federal programs like the NSLP are successfully used to aid students in low-income families. However, due to the school's duty to serve all eligible students with limited federal funds, some schools provides their students with low-quality food, failing to meet the nutritional guidelines of NSLP, or introduce ultra-processed foods that meet the guidelines but do not offer a healthy meal. Thus, there needs to be more oversight of those programs and adjustments of federal funds in accordance with providing nutrient-dense meals to students.

The main limitation of this study is making generalizations about the practical implementation of federal school meal policies after examining policies in only four states out of 50 states in the U.S. More in-depth research might reveal patterns among smaller states that have not been considered here. Moreover, another limitation is examining the shortcomings of federal and state lunch policies in only a few states. With a broader study, more limitations might come to light to introduce additional shortcomings that need to be addressed. Thus, future studies should consider examining the efficacy and limitations of federal and state school meal policies in all 50 states.

Additionally, early childhood nutrition's role as preventive medicine strengthens the notion that nutrition education can benefit students' short-term and long-term health. Therefore, it could possibly make additional benefits when coupled with other federally funded meal programs. For example, students might deliberately eat all portions of their meal including fruits, vegetables, grains, protein, and dairy, absorbing various nutrients that meet the nutritional guidelines outlined in Dietary Guidelines for Americans, 2020-2025, which NSLP implements.

If the government provides further funds to establish an environment for better diets at an earlier stage of people's school lives, and if additional federal and local oversight is implemented at a nationwide level, the NSLP, SBP, and SMP will become more successful programs. School lunches will offer plenty of nutrition options and children will learn to make healthier options in their diets, leading to both short-term and long-term health benefits.

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