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Free school meals policy: how are they governed? comparing India, the USA, Japan, and South Korea

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Abstract

Free school meals policy have been implemented globally as a mechanism to promote academic and nutritional equity. This study critically examines the management and challenges of free meal programs in four major countries: India, the USA, Japan, and South Korea. Through a comparative analysis, this article evaluates the governance structures of the programs. The study identifies a range of challenges faced by each country, including logistical complexities, socio-cultural barriers, and economic constraints. Despite their differences, the findings emphasize the importance of strong governance networks, sustained collaboration among key stakeholders—such as government agencies, educational institutions, and local communities—and context-specific policy adaptations. These elements are essential for overcoming challenges and ensuring the effectiveness and sustainability of free school meal policy initiatives. While addressing the primary objectives of health and education, these programs can contribute to broader social benefits.

Keywords: *comparative analysis; free school meals; policy; governance*

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Introduction

Free school meals programs have been adopted in various countries to improve academic and nutritional parity. However, the design and implementation of these programs have sparked extensive debate among scholars, policymakers, and government officials. Key issues include the choice between universal and targeted approaches, program financing responsibilities, management responsibilities, menu selections, evaluation methods, and the potential for expanding coverage (Bandoni et al., 2024; Cohen et al., 2023; Morelli & Seaman, 2005).

While opinions differ on the universality versus targeted nature of these programs, there is a consensus on their numerous positive impacts. The advantages encompass academic improvements, such as increased attendance (Gordanier et al., 2020; Jomaa et al., 2011; Leos-Urbel et al., 2013), and enhanced academic performance (Anderson et al., 2018; Belot & James, 2011; Gordanier et al., 2020; Schwartz & Rothbart, 2020). Furthermore, the school meals programs contribute to health benefits, including optimal growth in height and weight (Gleason & Dodd, 2009; Hecht et al., 2020), as well as improved micronutrient status (Condon et al., 2009; Johnston et al, 2012). Such benefits are especially pronounced among children from lower-income households, who often face greater barriers to accessing adequate nutrition (Cohen et al., 2021; Global Child Nutrition Foundation (GCNF), 2022; Jayaraman & Simroth, 2015; Kaur, 2021; Lundborg et al., 2022).

Free school meal programs have been established in both developed and developing countries, each with varied objectives beyond food provision. According to the World Food Program (WFP), these initiatives aim to improve health and educational outcomes, serve as social safety nets, support agricultural goals, and address obesity (GCNF, 2022). In addition, they aim to close gender gaps, promote traditional diets, and foster social values (Cohen et al., 2023; Mah, 2010; Woo, 2015). The diverse goals reflects the varied socio-economic, cultural, and political contexts of each country, underscoring the complexity and adaptability of the programs.

Despite the abundance of previous research on the effectiveness of free school meals programs, comparative studies examining their governance remain limited. Much of the existing literature tends to concentrate on individual countries within Western contexts (Adamson et al., 2013; Hirschman & Chriqui, 2013; Sonnino, 2009). Notable exceptions include the work by Cohen et al. (2023) and Hock et al. (2022). However, these studies are largely confined to nutritional or educational aspects without considering the broader social, economic, and cultural dimensions. As a result, the unique challenges that other nations encounter while putting these initiatives into practice are frequently disregarded.

The notion of "governance" serves as a useful framework for analyzing social policies (Daly, 2003). As the study of government and public policy has evolved, the discourse of governance has shifted focus, giving rise to a new, broader perspective. Initially, authority was largely centralized within the government; however, over time, it has been diffused through the involvement of non-governmental actors (Klijn, 2008). Governance is then seen as a horizontal process that is not only dominated by traditional hierarchical government structures but also by a network of diverse stakeholders, such as non-profit organizations, the private sector, and other entities (Ansell & Gash, 2008; Kettl, 2002). These actors engage in coordination and collaboration to implement policies. In sum, using Rhodes' (2007) words, "governance refers to governing with and through networks."

The network approach provides deeper insights into how different actors work together and influence one another in administering the free lunch programs, allowing us to see a more holistic picture of the dynamics behind the implementation of the policies. In addition, analyzing governance through a network perspective helps to examine how actor coordination influences program success or challenges, such as food distribution and quality.

Building on this framework, this study conducts a comparative analysis of free school meal governance in four diverse socio-economic and cultural contexts: India, the United Stated of America (USA), Japan, and South Korea. Adopting a holistic approach that incorporate local dynamics, it evaluates governance practices, including the allocation of responsibilities and the unique challenges each country faces in implementing these programs. Specifically, the research addresses two key questions: (1) How do governance practices differ among these countries? (2) What specific challenges do they encounter in program implementation? By examining these aspects, this article not only aims to contribute valuable insights into the cross-cultural understanding of these essential programs but also offers recommendations for policy improvements across varied settings.

This paper is structured as follows: First, we explain the data collection and analysis methods employed in this study. Following this, we present a detailed discussion of the free school meal programs in the four selected countries. Finally, we

provide a summary of the findings and draw conclusions on the implications of these practices for the broader field of educational and social policy.

Research Methods

Data collection in this study follows a qualitative approach (Creswell, 2014). Data is collected from secondary sources. To ensure the validity and credibility of the findings of this study, the data were obtained from multiple sources and subsequently subjected to cross-verification, allowing for triangulation. These sources include official government websites and regulations, academic books, peer-reviewed journal articles, reputable media outlets, and reports from non-state organizations. This approach helps minimize bias and increases the accuracy of the analysis.

The focus of the study is in the following countries: India, the USA, Japan, and South Korea. For each country, data is collected related to the management of free school meals programs. The data is grouped into key categories, namely: description, aims, coverage, organization/management, budget, effects, and challenges. Following this, data collection by country takes place. Information is gathered within the pre-defined categories for each country, relying on reliable secondary sources to describe the programs in each country.

The collected data is then subjected to thematic data analysis, which involves identifying and reporting of patterns within the data, interpreted for their underlying meaning (Braun & Clarke, 2006). In-depth thematic analysis focuses on how free school meals programs are managed in each country, identifying patterns, trends, and themes from the data. In the comparative analysis across countries, similarities and differences in the implementation of these programs are evaluated across India, the USA, Japan, and South Korea, particularly regarding the management of the program. Finally, the conclusion synthesizes the findings from the comparative analysis, providing insights into policy effectiveness, common challenges, and country-specific differences in the program management across the four countries.

Results and Discussion

The Mid-Day Meal Scheme in India

The free school lunch program (Mid-Day Meal Scheme or MDMS, also known as PM Poshan) in India is the world's largest school meal program. It also has the lowest per capita feeding cost globally. This program was initiated in 1995 with the aim of improving nutrition, especially for elementary school children. Previously, only the states of Tamil Nadu and Gujarat had more than free school meal programs (Kaur, 2021). The program initially targeted all school children in grades 1–5 but was later extended to include students up to grade 8 (Singh et al., 2014). They receive wheat/rice porridge (sweet or salty) for lunch. This porridge supplies at least 413.80 calories and 8.20 grams of protein (Afridi, 2011). These lunches are provided to students who maintain attendance of 200 or more days per year. In addition to enhancing the student's nutrition, the program seeks to increase student enrollment, and reduce dropout rates, ultimately supporting the policy of mandatory basic education (Kaur, 2021).

MDMS operates nationally, with the federal government responsible for procuring food ingredients. The state governments handle the preparation of these ingredients into ready-to-eat meals, including providing the necessary infrastructure such as public kitchens, water, and cooking utensils. Additionally, the federal

government subsidizes transportation for food deliveries from nearby food depots to schools. If the state does not have a budget to provide ready-to-eat food, then the raw food ingredients—specifically 3 kg of rice or wheat per month—are directly given to students with a minimum attendance of 80%.

Initially, only the states of Kerala, Madhya Pradesh and Orissa took action to follow up the MDMS policy (Afridi, 2011; Khera, 2006). The high cost of cooking and providing supporting infrastructure are the two main reasons that make it difficult for the other states to implement this policy. The amount of budget that the state must pay for cooking is 1-2.34 Indian Rupees/child/day (Khera, 2006).

Low enthusiasm and slow response from states in implementing MDMS contributed to the rise of demonstrations. Consequently, the Supreme Court of India issued a mandate in 2011 requiring all state governments to enforce the MDMS program (Afridi, 2011; Kaur, 2021). The government also issued guidelines for implementing MDMS in 2004, which were then revised again in 2006. The last revision of the guidelines was in 2015, and this revision was an improvement on the previous guidelines in 2013, which focused more on aspects of quality, safety, and hygiene. The 2015 guidelines include expanding the target of the program, namely schoolchildren aged 6-14 years. According to the guidelines, children in grades 1-5 should receive a hot cooked meal containing at least 450 calories (12 grams of protein), while those in grades 6-8 should get a meal at least 700 calories (20 grams of protein). All food is under the supervision of School Management Committees (SMCs) and certified by the Government Food Research Laboratory (Paltasingh & Bhue, 2022). In 2021, PM Poshan expanded and increased the MDMS budget (Hoque, 2023).

Until 2004, MDMS had been implemented in 20 states and 7 Union Territories, as well as partial implementation in 8 other countries (Khera, 2006). Tamil Nadu, Kerala and Gujarat are among the states that have not only implemented the program seriously but also expanded the reach of MDMS. In Tamil Nadu and Kerala, the poor and elderly are also included in the program. Meanwhile, in Gujarat, this program is not only for grades 1-5 but up to grade 7 children (Khera, 2006).

MDMS management varies by state. The main coordinator of MDMS can be conducted by the department of school education, village development, and development of women and children, and social welfare (Khera, 2006). Public Private Partnership Schemes and even Non-Governmental Organizations (NGOs) can also be involved in providing food on a contract basis.

Local entities also play a significant role in MDMS management. These include the Gram Panchayat, municipalities, Village Education Committees (VEC), School Management and Development Committees (SMDC), and Parent-Teacher Associations (PTA). For cooking and food distribution, responsibilities are often assigned to community women's cooperatives (self-help groups or SHGs), local youth organizations affiliated with Nehru Yuva Kendras, voluntary organizations, or individuals appointed by VEC, SMDC, PTA, Gram Panchayat, or municipalities (Nakao & Tsuno, 2018).

The absence of standards in MDMS management gives rise to new problems, for example, supply schedules that are not on time and limited monitoring (Khera, 2006). Starting in 2009, MDMS is under the supervision of School Management Committees (SMCs) (Paltasingh & Bhue, 2022).

In urban areas, food cooking activities are carried out in centralized kitchens, after which the food is distributed to schools. Providing food in rural areas is more complex. Referring to the 2006 MDMS guidelines, this responsibility falls on local SHGs,

local and city representative members, members of youth organizations and Nehru Yuva Kendras (Paltasingh & Bhue, 2022).

Currently, the government is even using information technology in evaluating and monitoring MDMS. Through Interactive Voice Response (IVR) technology, it can now track the program in real-time. The government also involves 38 independent institutions in monitoring activities (Ramachandran, 2019).

Paltasingh and Bhue (2022) note that the benefits of MDMS are not only enhancing students' health, nutrition, and school attendance; they also contribute to the improvement of the local economy. This program opens opportunities for local farmers to improve their welfare by providing food. MDMS also unlocks employment opportunities for weak women, especially widows and poor women. Khera (2006) even considers political factors to be one of the important factors in implementing MDMS. Paltasingh & Bhue (2022) found that the challenges of implementing MDMS are not easy, starting from standardization of food quality and quantity, hygiene, infrastructure, funding, issues of caste discrimination, and the problem of centralization of kitchens, the strong agenda and interests of large business groups, and even the problem of corruption (Khera, 2006; Paltasingh & Bhue, 2022). The inclusion of eggs in the MDMS menu also received resistance from religious groups who preferred vegetarian menus (Hoque, 2023).

School Meals Programs in the United States

The school meal program in the United States (U.S.) is one of the oldest food assistance policies in the world. This free and subsidized meal program has been operational for over 75 years. The federal-level school meal initiative was first established in 1946 by President Harry S. Truman when he signed the National School Lunch Act into law (Poppendieck, 2010).

The main objective of this program was to address child hunger and promote equitable access to nutrition for students in need. In addition to its crucial role in protecting children from nutritional deficiencies, there was also a need to absorb surplus agricultural products post-war (Rutledge, 2015; Taenzler, 1970). Over time, the school meal program expanded through the enactment of new legislation such as the Child Nutrition Act of 1966 and the Healthy, Hunger-Free Kids Act (HHFKA) of 2010.

The U.S. school meal program is a component of the Child Nutrition Programs (CNP), where the government serves 8.8 billion meals in the fiscal year 2023 (Jones & Toossi, 2024). Generally, CNP programs specifically conducted in schools can be divided into two: the School Breakfast Program (SBP) and the National School Lunch Program (NSLP). While federal law does not obligate schools to take part, certain states do mandate that schools offer lunch and/or breakfast programs. In these cases, the programs may need to be provided through the NSLP and SBP (Billings, 2023). Although they are different programs, there are no significant differences between the SBP and NSLP other than the meal timing—the former in the morning and the latter at noon.

The execution of the school meal program requires the involvement of government entities at different levels. At the federal level, this program is managed by the United States Department of Agriculture (USDA) through the agency that oversees nutrition assistance programs, the Food and Nutrition Service (FNS). In carrying out its duties, the FNS distributes funds to states. Additionally, the FNS issues regulations, provides direction and technical support to state agencies, and school food authorities

(SFAs). The FNS also oversees state-level agencies, including conducting management evaluations (Billings, 2023).

At the state level, the scheme is run by the departments of education and agriculture. These agencies assist the federal government in data collection and reporting. State governments are responsible for distributing reimbursements from the federal government to designated SFAs. Additionally, they provide guidance to SFAs, monitor, and review program management conducted by SFAs, particularly in terms of meal patterns and nutritional standards (Billings, 2023).

These SFAs manage the meal programs at the local level. Typically, an SFA operates as a food service department within a school district (a group of schools participating in the program) or as an individual school. This unit is responsible for directly handling the operational and accounting aspects of the meal program, including purchasing, preparing, and serving meals (Ollinger et al., 2018). SFAs also maintain detailed records of the meals served to process reimbursement claims. They are supported by local educational authorities in performing procedural tasks such as handling submissions and assessing students' qualification for free and subsidized school meals (Billings, 2023).

Over time, the business sector has increasingly engaged in the management of school meal programs. SFAs could hire private food service management companies to handle the acquisition of supplies and/or prepare meals. Around 20% of school food authorities have transitioned to private management companies, thereby delegating these responsibilities (Izumi et al., 2018).

In providing financial assistance for the school meal program, the USDA generally offers two types of aid: cash reimbursement and commodity foods. The amount of funding received by participating schools is calculated per meal served. The federal government reimburses according to three meal classifications (free, reduced-price, or full-price), which are determined by student eligibility (United States Government Accountability Office, 2023). For the fiscal year 2023-2024, for example, the reimbursement rate for free meals ranges from $4.25 to $4.50 per meal. For reduced-price meals, the range is $3.85 to $4.10 per meal, while for full-price meals, the amount paid is only $0.40 to $0.56 (US Federal Register, 2023). These rate differences arise because states have flexibility in fund distribution. Additionally, rates for special areas such as Alaska and other US territories like Puerto Rico and Guam may differ significantly due to their geographic distance compared to mainland states (Billings, 2023).

In addition to reimbursements, the federal government also allocates assistance known as USDA Foods entitlement funds (Food and Nutrition Service, 2021). These funds are typically used to purchase surplus agricultural products from farmers at relatively lower prices. The funds can be utilized to buy ready-to-ship products for schools (USDA Foods) or bulk food supplies that are first sent to manufacturers to be processed into products used in school menus (commodity assistance). Commodity assistance includes a variety of food items such as fruits, greens, meat, cheese, pasta, rice, and cereals. States can also use these funds to order fresh produce like fruits and vegetables through a cooperative program with the Department of Defense called USDA DoD Fresh (Ollinger & Guthrie, 2022).

In administering the reimbursement scheme, the eligibility status of students for assistance becomes relevant. Both SBP and NSLP are means-tested interventions, meaning that enrollment is based on family income data collected through applications to determine student eligibility for school meals. Students from families earning 130

percent or less of the federal poverty threshold qualify for meals at no charge. Meanwhile, households with incomes less than 185 percent are entitled to lower-cost meals, capped at $0.40. Children who do not apply for or are ineligible for free or discounted meals must pay the full amount (Rothbart et al., 2023). Additionally, there are alternative pathways to eligibility beyond income. Children qualify automatically if they belong to specific categories. These categories include children who are enrolled in government assistance programs, those in foster care, immigrants, and homeless children (Billings, 2023).

To streamline the administrative process and increase participation, the federal government has introduced special provisions for students regardless of income through a new model. This model is known as the Community Eligibility Provision (CEP), which brings the U.S. school meal program closer to the concept of universal free meals. With CEP, schools can participate and adopt free meal programs for all students if 40 percent (reduced to 25 percent in 2023) of their students fall into the "eligible" category (Billings, 2023). To simplify the requirements, instead of collecting income status information, family income data is cross-referenced with records from other government social programs. This implies that the student is automatically deemed eligible if a family is already registered in one of these social programs (such as the Supplemental Nutrition Assistance Program - SNAP).

Despite these new extensive mechanisms, the social prejudice linked to being provided free or reduced-price meals persists. This stigma, often rooted in perceptions that these meals are only for low-income families, can engender feelings of embarrassment among students (Gagliano et al., 2023). Consequently, some students may avoid participating in the program altogether, even when they are eligible, due to the fear of being singled out or labeled by their peers (Bailey-Davis et al., 2013).

According to the formula developed by the government, only schools with 62.5% or more of students meeting the eligibility criteria receive full compensation for all meals at no cost. Schools that fall below the required percentage receive free meal reimbursements for a portion of the meals and must cover part of the cost with paid meal rates (Billings, 2023).

Funding for meal reimbursements and school food assistance comes from the federal government. In the fiscal year 2023, the NSLP served 4.6 billion lunches, incurring a total expenditure of $17.2 billion. In comparison, the SBP served 2.4 billion breakfasts, with an aggregate cost of $5.2 billion. These funds are distributed to almost 100,000 schools, including public and nonprofit private educational institutions (from pre-kindergarten through 12th grade) and orphanages (Jones & Toossi, 2024).

In addition to the federally mandated amounts, several states allocate supplementary funds for the NSLP along with other children's nutrition programs; some states even set their own reimbursement rates per meal. Moreover, several states have implementing funding to offer free meals to every pupil (Billings, 2023). As of August 2023, several states—such as California, Colorado, Maine, Massachusetts, Minnesota, Michigan, New Mexico, and Vermont—have implemented statewide permanent universal free meal programs. While Connecticut put this policy into practice for the 2022–2023 school year, Nevada extended it through the same year and the following one. Additionally, other states have opted for more limited implementations (Jones & Toossi, 2024).

The main components of a meal include grains, meat or meat alternatives, vegetables, and fruits, which can be chosen by students (Cohen et al., 2021). These programs are held to rigorous health, safety, and sanitation standards established by

state and local regulatory bodies, particularly concerning food storage, preparation, and service protocols (Billings, 2023). Participating schools are not only required to fulfill stringent nutritional guidelines but also are encouraged to follow the Dietary Guidelines for Americans, which were issued by the USDA and the Department of Health and Human Services. The new standards will adjust the nationwide nutritional quality, bringing them into closer alignment with the 2020 dietary guidelines (Billings, 2024). These changes include new standards for milk, sodium, whole grains, and added sugars, as well as reductions in sodium and other policies (Billings, 2023). Additionally, schools involved in the programs are mandated to undergo food hygiene checks at least biannually by state or local authorities (Billings, 2023).

Numerous SFAs take care of meal preparation and cooking themselves, either through a district's centralized kitchen or directly at their respective school sites. A USDA study for the 2014-2015 school year found that nearly 80% of NSLP public schools prepared meals on-site, whereas the remaining schools received meals from central kitchens or other facilities (Billings, 2023). Furthermore, the "Buy American" requirement mandates that participating schools acquire domestic goods and products to the greatest extent feasible (Williams et al., 2021).

Breakfast and lunch times in US schools vary, but some features are generally consistent. Most schools feature a cafeteria that includes a dining area, a kitchen for either on-site preparation or receiving meals from a central kitchen, and a serving line linking the kitchen to the dining area. Previously, under the SBP, students were required to eat breakfast in the canteen. However, recently schools and states have begun to adopt new approaches, including classroom breakfasts, grab-and-go systems, and morning break services (Billings, 2023). Lunch periods, scheduled between 10:00 AM and 2:00 PM, provide a four-hour window for schools with smaller cafeterias or large student populations to manage all students through staggered lunch periods of about 30 minutes each (School Nutrition Association, n.d.).

School Lunch Program in Japan

The "*gakkō kyūshoku*", or school lunch program in Japan has a lengthy history, beginning in 1889 when free meals were provided to the disadvantaged elementary students in Yamagata Prefecture (Ishida, 2018). It has been an integral part of the Japanese education system. Initially, this program aimed to combat severe nutritional deficiencies and economic challenges following World War II. The school lunch program in Japan officially began with the enactment of the School Meals Act (学校給食法) in 1954, a legislative measure that sought to enhance the nutrition of schoolchildren while also instilling healthier dietary habits through the provision of balanced lunches at school (Shūgiin, 1954). This law emerged from a critical need to address the issue of widespread malnutrition that afflicted children in the post-war period, during which many families were grappling with economic instability and food shortages (Nakamura, 2011).

Over time, the law has undergone revisions to establish a nationwide implementation framework (Morimoto & Miyahara, 2018). The Basic Act on Shokuiku (Food and Nutrition Education), passed in 2005, marked a shift in the program's focus from mere nutrition to serving as a vital educational tool (Mah, 2010). Today, it plays a significant role in imparting knowledge and raising awareness among students about the importance of food quality, etiquette, nutritional education, and understanding local food and culture (Harper et al., 2008). Moreover, the program is integrated into various subjects, such as health education, home economics, and living environment

studies (Tomokawa et al., 2021). Practically, students participate by serving lunch to their classmates, which helps them learn about ingredients, nutritional value, and food preparation, while also fostering a sense of responsibility and community (Rappleye et al., 2024; Tanaka & Miyoshi, 2012). Thus, school lunches in Japan have evolved from mere sustenance to an integral part of the educational curriculum.

The central and local governments collaborate in implementing this program (Maruyama & Kurokawa, 2018). The central government, via the Ministry of Education, Culture, Sports, Science, and Technology (MEXT), develops the policies and sets the standards that shape the school lunch menus (Kojima et al., 2018). The meals are typically crafted from scratch, striking a balance between nourishment and substance, with a particular emphasis on rice, vegetables, fish, and soups (Harlan, 2013). With balanced meals and diverse ingredients, it now provides over a third of students' daily nutritional intake (Morimoto & Miyahara, 2018).

The guidelines are regularly reviewed to adapt to societal changes and new challenges. In the 21st century, the school meals program has expanded to include aspects of sustainability and environmental awareness, with many schools starting to use local and organic produce (Kimura & Nishiyama, 2008). The program has also become more attentive to food allergies, with the provision of guidelines giving teachers to have a good understanding to deal with students with allergic reactions (Cook, 2021). Today, the emphasis lies on adopting organic foods, ensuring food sustainability, and reducing waste (Izumi et al., 2020; Maruyama & Kurokawa, 2018; MEXT & Ministry of Agriculture, Forestry and Fisheries (MAFF), 2023).

School lunches in Japan, known as "*kyushoku*," are not universally free. The program is funded through a combination of central government subsidies, local government subsidies, and parental contributions, with the proportion varying by locality (MEXT & Ministry of Agriculture, Forestry and Fisheries (MAFF), 2023). The availability of free lunches depends on local government policies, which often provide subsidies to ensure that the prices are affordable for families. Parents typically shoulder a portion of the food costs, while the remaining expenses, including labor and operational expenses (such as utilities and equipment), may be funded by the school budget or other government resources (Harper et al., 2008). For instance, in 2018, the average monthly fee for school lunches was 4,343 yen ($33,41 USD; exchange rate 1 USD =140 JP¥) for elementary school students and 4,941 yen ($38) for middle school students (Kurotani et al., 2021).

By 2018, Japan's school lunch program had achieved nearly universal implementation in elementary schools, with a coverage rate of 98,8%, while the program was adopted by 79,9% of junior high schools (Waida & Kawamura, 2022). According to a MEXT survey for fiscal year 2023, 547 municipalities offered cost-free lunches for every student enrolled in primary and junior high schools (Yamamoto, 2024). Additionally, 145 municipalities offered partial subsidies, such as half-price lunches or free meals for families with three or more children. By the end of fiscal year 2023, or around March 2024, more municipalities, including larger cities such as Tokyo's Katsushika Ward (population 460,000) and Ichikawa City in Chiba Prefecture (490,000), had either begun or were planning to offer free school lunches (Akahata, 2022).

The long-term implementation of the school lunch program is expected to achieve several goals, notably maintaining low obesity rates (Moffat & Thrasher, 2016). Japan, renowned for its low child obesity rates (UNICEF, 2023), attributes this success in part to its school lunch program (Fisher, 2013; Miyawaki et al., 2019). The program's emphasis on healthy eating habits and nutrition education is believed to foster better

health and contribute to obesity reduction. The school meals are meticulously regulated to ensure they are low in calories yet high in essential nutrients. This approach has garnered international recognition for its role in sustaining Japan's low childhood obesity rate (The Business Times, 2019).

In addition to improving students' nutrition, school lunches aim to teach students about cooperation, responsibility, and respect. In many schools, students are directly involved in serving meals and cleaning up afterward (Bamkin, 2020). This teaches them practical skills, teamwork, and discipline. School lunches also celebrate and preserve Japanese culture. Through the meals served, students learn to appreciate traditional Japanese foods and understand the importance of seasons in Japanese culture (Atsuko & Telfer, 2008; Moffat & Gendron, 2019).

One of the most significant aspects of this program is its vital role in promoting social equity by ensuring that all kids receive uniform meals. Every child, irrespective of their socioeconomic background, receives the same meal, which can help reduce social stigma and promote equality among students (Moffat & Thrasher, 2016). The egalitarian nature eating together, combined with the integration of cultural education contribute to a sense of cohesion and collective identity among young Japanese (Waida & Kawamura, 2022). Furthermore, the program fosters environmental awareness by reducing waste. Students are taught to appreciate all the food served to them and to enjoy it, reflecting the broader Japanese cultural value of "*mottainai*" or minimizing waste (Kimura, 2018).

Despite its benefits, the program faces several challenges. Supply chain issues, particularly in procuring local and seasonal ingredients, are common, especially in remote or less fertile areas. These challenges can limit meal variety and quality and increase the already substantial costs of providing fresh and nutritious daily meals. Additionally, accommodating children with food allergies or other dietary restrictions remains a complex issue, hindering efforts to achieve full inclusivity (Moffat & Thrasher, 2016). Approximately 600,000 students skip school lunches due to allergies and other factors like intolerances or other medical conditions (The Japan Times, 2024). Moreover, peer pressure to finish all food also persists (Asakura & Sasaki, 2017; Tsuneyoshi, 1994), which may cause stress for some students and lead to food waste if they are served more than they can consume.

Free School Meals in South Korea

In many countries, schools have long served as venues for providing nutritional services to children, and South Korea exemplifies a well-implemented approach. Over the last decade, South Korea has made significant changes regarding student nutrition (Yoon et al., 2012). The country's compulsory education spans nine years — six years in primary school and three in middle school — with high school education not being mandatory. Within this framework, the emphasis is placed on promoting healthy food choices and good nutrition through school meal provisions.

The early phase of South Korea's school meal program dates back to 1953 with UNICEF's assistance, evolving through initiatives like the CARE Lunch Program and Food for Peace initiatives. The 1967 School Health Act laid the foundation for the program, formally starting in 1973. Despite initial challenges, including a food poisoning outbreak in 1977, the program continued to develop, thanks to the Ministry of Education's vital role in policy formulation. The School Meal Act of 1981 provided a legal framework for the program's expansion and refinement (Rho, 2017). The present Free School Meal Program (FSMP), as it exists today, was initiated in 2011, enabling

schools to provide free lunches to every student, irrespective of their family's financial background (Baek et al., 2019). The ultimate goal of South Korea's school meal system is to enhance student health, promote traditional Korean diets, and provide opportunities for healthier dietary habits through nutrition education and free meal provisions (Woo, 2015).

The average lunch cost in 2010 was 1,900 KRW (approximately 1,76 USD) for elementary students and 2,700 KRW (about 2,50 USD) for middle and high school students. Meals were typically served in cafeterias (79%) or classrooms (16%), with some schools using both due to cafeteria capacity limitations (Yoon et al., 2012). Menus adhered to nutritional standards outlined in the Enforcement Rules of the School Meal Act, revised in 2007, specifying required energy and nutrient levels per meal based on age and gender. These standards are derived from a third of the Dietary Reference Intakes for Koreans, with menus designed to provide a balanced mix of carbohydrates, proteins, fats, and essential nutrients. Additionally, menu planning considers traditional food culture, food variety, minimal use of additives, seasonal ingredients, and diverse cooking methods.

The FSMP is primarily organized by regional governments, reflecting South Korea's decentralized approach to public welfare programs. The involvement of multiple stakeholders—including policymakers, activists, educational administrators, and the general public—adds layers of complexity to the decision-making process. The funding for the FSMP is derived from government budgets, allocated through a complex process that balances political consensus and public opinion. This budgeting process involves significant political negotiation, as resources must be distributed equitably across different regions and demographic groups (Chon & Ahn, 2015). Additionally, the program's funding strategy includes support for eco-friendly initiatives, such as sourcing organic and pesticide-free ingredients. These initiatives are part of a broader strategy to promote sustainable diets and food sovereignty, aligning the FSMP with global trends towards environmentally conscious consumption (Gaddis & Jeon, 2020).

The budgeting process for the FSMP is characterized by incremental adjustments and political negotiations. Creating a consensus among various stakeholders, including regional governments and the public, is often challenging but essential for the program's gradual expansion and improvement. As highlighted by (Chon & Ahn, 2015), the process involves continuous dialogue and negotiation, ensuring that the program evolves in response to emerging needs and feedback. The inclusion of new supply chains, certification standards, and sourcing policies in the budget reflects a proactive approach to maintaining high standards in the program's implementation. These elements are crucial for ensuring that the meals provided are not only nutritious but also align with broader societal goals such as supporting local economies and promoting environmental sustainability (Gaddis & Jeon, 2020). The focus on organic and pesticide-free ingredients demonstrates a commitment to minimizing environmental health risks, aligning with global public health initiatives that advocate for healthier, more sustainable food systems.

Implementing the FSMP involves a multi-step process, beginning with establishing new supply chains and certification standards. This "precautionary infrastructure" is essential for ensuring the consistent delivery of high-quality, safe meals to schools across the country. The program's implementation requires meticulous planning and coordination among various government agencies, schools, and suppliers. This coordination is critical for addressing logistical challenges, such as

distributing meals to schools in remote areas and ensuring that all students receive their meals on time.

According to Gaddis and Jeon (2020), the program also places a strong emphasis on continuous monitoring and evaluation, which helps pinpoint areas needing improvement and ensures that the program adapts to changing circumstances. The involvement of local governments and schools in the implementation process cannot be overstated; their involvement is crucial for tailoring the program to suit the specific demands of their communities. The FSMP's decentralized structure allows for local variation in menu planning and ingredient sourcing, enabling schools to cater to regional dietary preferences and cultural practices.

The FSMP has had a significant impact on students and schools, with studies indicating a notable reduction in student misbehavior, particularly physical fights, by approximately 35% (Altindag et al., 2020). This reduction in behavioral issues can be attributed to the program's role in ensuring that students receive nutritious meals, which has been linked to improved concentration and overall well-being. However, the program's impact is not without challenges. This universal approach aims to improve student health outcomes, but studies have shown potential drawbacks. Research indicates that the FSMP could lead to a greater risk of excessive weight gain among adolescents, especially girls, raising concerns about overnutrition and the need for further assessment and intervention (Kim et al., 2023).

Moreover, the implementation of FSMP has been linked to a decline in the percentage of students achieving high fitness grades and a reduction in physical education funding, which could potentially have a negative effect on student fitness levels.

Additionally, the implementation of FSMP has been associated with a decline in the percentage of students achieving high fitness grades and a decrease in physical education expenses, potentially impacting student fitness levels negatively (Baek et al., 2019). Despite these challenges, the FSMP has been lauded for promoting social justice and ecological goals. Through supplying free meals to all students, the program helps reduce inequalities and ensure that every child, regardless of socio-economic background, has access to nutritious food. Furthermore, the program's emphasis on eco-friendly ingredients supports broader environmental goals, making the FSMP a model for other countries seeking to implement similar initiatives (Gaddis & Jeon, 2020).

South Korea's FSMP is universal, covering all pupils from elementary through high school without economic eligibility considerations, unlike programs in other countries. For example, India's Midday Meal Program is limited to public elementary school students, while the CEP in the United States focuses on schools where a high percentage of students are eligible for free lunches. South Korea's FSMP replaced the previous subsidized lunch policy, with implementation or expansion occurring gradually and selectively due to provincial budget concerns (Baek et al., 2019). For instance, all kindergarten and elementary, middle, and high school students in Seoul receive free lunches (Eun-byel, 2022). The program represents a significant portion of local government education spending, about 5%. Understanding the impact of FSMP on other improvements is essential, especially given South Korea's high education participation rate (OECD, 2021a, 2021b). South Korea's ability to provide universal free school meals, while many other countries offer subsidies based on family income, offers valuable policy implications for nations considering universal school meals programs.

The findings of this study are summarized in Table 1, which provides a comparative overview of the management practices for school meals across the four countries examined.

Table 1 Comparison of Governance Among Selected Cases

	Coverage	**Governance**	**Funding**	**Challenges**
India	Universal (Grades I–VIII)	Centralized	Co-shared	Standardization of food, weak institutions, religious and caste discriminations
The USA	Targeted	Decentralized	Federal, with additional funding from states	Logistics, stigma, disenfranchisement
Japan	Near-universal	Quasi-centralized	Co-shared (between the governments and parents)	Specific dietary needs, food waste, cost burden, rising prices
South Korea	Universal	Decentralized	Local, with additional funding from the central government	Logistics, overnutrition risk, consistency issues

Source: Authors' processed data (2024)

Table 1 highlights the diverse governance strategies employed in school meal programs across case studies. India's universal school meal program employs a centralized framework with shared responsibilities among stakeholders. Despite its extensive reach, it faces significant barriers, mainly standardization, institutional capacity and social discrimination, undermining its equity and efficiency. Conversely, the United States operates a targeted, decentralized system supported by federal and state funding, offering local flexibility but grappling with inefficiencies, social stigma, and exclusion of eligible students. Japan and South Korea, with near-universal and universal programs, differ in governance. Japan's quasi-centralized, co-shared model addresses dietary requirements but contends with rising costs and food waste, while South Korea's decentralized, co-funded approach faces challenges such as logistics and overnutrition issues. These disparities underscore the multifaceted nature of addressing student nutritional needs within varying socio-economic and institutional landscapes.

Conclusion

Many countries in the world are implementing free school meal programs to improve the health and education of students, mainly in primary and secondary schools. The characteristics of the programs are diverse in their objectives, coverage, governance, finance, and even modalities of food delivery. Analyzing school meal programs across various countries reveals distinct approaches and challenges that affect their effectiveness and equity.

School meal programs across India, the United States, Japan, and South Korea demonstrate diverse approaches shaped by governance structures and socio-economic contexts. While India's centralized, universal model struggles with systemic inequities, the United States' targeted, decentralized system highlights issues of accessibility and stigma. Japan and South Korea face challenges related to diet and nutrition. These variations underscore the need

for context-specific strategies that balance inclusivity, efficiency, and sustainability in addressing school meal program challenges.

While it is beyond the scope of this paper to offer policy recommendations to the four countries, a few minor suggestions are worth mentioning. First, national guidance is detrimental to the standardization of the program. Second, continuous support and collaboration between governments and non-governmental actors, including community organizations and private sector stakeholders, are crucial to the success of the program. Effective governance networks, as emphasized in this study, facilitate such collaboration and help address challenges. Third, once the primary goals of health and education equity are met, wider benefits may follow.

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