



MISSION

Promoting lifelong healthy eating habits by providing nutritionally balanced meals to empower our students to achieve academic success.

VISION

To nourish and empower every student to thrive academically and personally by providing nutritious meals in a welcoming environment.

VALUES

Health and Wellness

We prioritize the physical and mental well-being of every student by promoting nutritious eating habits that support growth, development, and learning in the classroom.

Equity and Access

We are committed to ensuring that all students, regardless of background or circumstance, have consistent access to nutritious, high-quality meals.

Academic Empowerment

We believe proper nutrition is essential to learning and achievement, and we support students in reaching their full academic potential through healthy meals.

Lifelong Habits

We foster education and experiences that encourage students to make informed, healthy, choices throughout their lives

Integrity and Accountability

We uphold high standards in food quality, safety, and program delivery, and we take responsibility for the health outcomes we influence.

Compliance

We strive to adhere to all federal, state, and local regulations governing menus, purchases, meal benefit eligibility, and food safety.

**Collaboration**

We work together with families, educators, and communities to create a culture that values and supports student health and academic success.

Innovation

We continuously seek new, evidence-based ways to improve nutrition services and promote better health outcomes for students.

Glossary of Acronyms

ACRONYM	DESCRIPTION
AR	Administrative Review
ARM	Administrative Reference Manual
CAD	Corrective Action Document
CE	Contracting Entity
CEP	Community Eligibility Provision
CFR	Code of Federal Regulations (eCFR- electronic CFR)
CN	Child Nutrition
CND	Child Nutrition Director
CNP	Child Nutrition Program
ENCR	Excess Net Cash Resources
ESC	Education Service Center
FIFO	First In-First Out (Inventory Method)
FSMC	Food Service Management Company

RM	Resource Management
RMCR	Resource Management Comprehensive Review
RMS	Resource Management Summary
SA	State Agency
SBR	School Breakfast Program
SFA	School Food Authority
SNA	School Nutrition Association
TDA	Texas Department of Agriculture
TEA	Texas Education Agency
USDA	United States Department of Agriculture

AT A GLANCE

CHILD NUTRITION PROGRAMS: Transitional Standards for Milk, Whole Grains, and Sodium Final Rule

THE ISSUE

School nutrition professionals have worked tirelessly throughout the pandemic to feed children in their communities. USDA is committed to providing them the support they need to successfully operate the school meal programs. The Child Nutrition Programs: Transitional Standards for Milk, Whole Grains, and Sodium Final Rule will serve as a bridge to transition from where we are now to where we're going – helping schools build back from the uncertainty caused by both the pandemic and several legislative and administrative changes over the past several years so they can continue to provide kids with high-quality, nutritious meals that support their health and development.



THE BACKGROUND

In 2012, USDA updated school meal requirements, including revising nutrition standards to reflect the most recent Dietary Guidelines for Americans (DGAs) at that time. This included increasing fruits, vegetables, and whole grains; adjusting requirements for milk; reducing sodium; and setting calorie standards.

Many schools implemented the updated nutrition standards very successfully. Kids' Healthy Eating Index scores – a measure of how closely diets reflect the DGAs – jumped, and research showed children received their healthiest meals of the day at school.

However, legislative and administrative actions delayed full implementation of the requirements for milk, whole grains, and sodium. Further, the pandemic caused major disruptions to the school meal programs, while highlighting the critical role schools play in ensuring kids are well fed.



AT A GLANCE

CHILD NUTRITION PROGRAMS: Transitional Standards for Milk, Whole Grains, and Sodium Final Rule

This new rule establishes standards for milk, whole grains, and sodium for school years 2022-2023 and 2023-2024 to give schools time to transition in the short term. Meanwhile, USDA is working to develop long-term nutrition standards - based on the newest DGA and extensive input from a wide range of partners - that will work for schools, families, and industry alike. USDA expects to publish a proposed rule on the updated standards in fall 2022.

SUMMARY OF CHANGES



MILK

Schools and child care providers may offer flavored, low-fat milk (1%) in addition to unflavored, low-fat milk and flavored or unflavored nonfat milk¹.



SODIUM

The weekly sodium limit for school lunch and breakfast will remain at the current level, known as Target 1, for school year 2022-2023. For school lunch only, the limit will decrease marginally (10%) in school year 2023-2024 to put schools on an achievable path toward long-term sodium reduction, which will be addressed in future rulemaking.



WHOLE GRAINS

At least 80% of the grains served in school lunch and breakfast per week must be whole grain-rich (containing at least 50% whole grains).

¹For consistency, this standard applies to the National School Lunch Program, School Breakfast Program, Child and Adult Care Food Program (ages 6 and up), and Special Milk Program (ages 6 and up).

tion of their student populations; and their infrastructure. These differences can mean that determinants of NSLP participation and the characteristics of the students who do participate can vary across schools. For example, in the SNMCS, the negative association between more stringent nutrition standards for competitive foods and participation was driven by high schools and was not observed in elementary or middle schools. A systematic review of 34 studies examining different strategies for increasing participation in school meal programs across different contexts (e.g., years, geographic areas, and grade levels) found that restrictions of competitive foods were associated with increases in school meal participation and that stronger nutrition standards were not associated with lower participation (Hecht et al., 2023). The same review found limited evidence among existing studies on the effectiveness of other approaches, such as taste tests, modified menu options, changes to the length of meal periods, changes to the cafeteria environment, and wellness policies (Hecht et al., 2023).

Changes to the NSLP Associated With the Healthy, Hunger-Free Kids Act of 2010 (HHFKA)

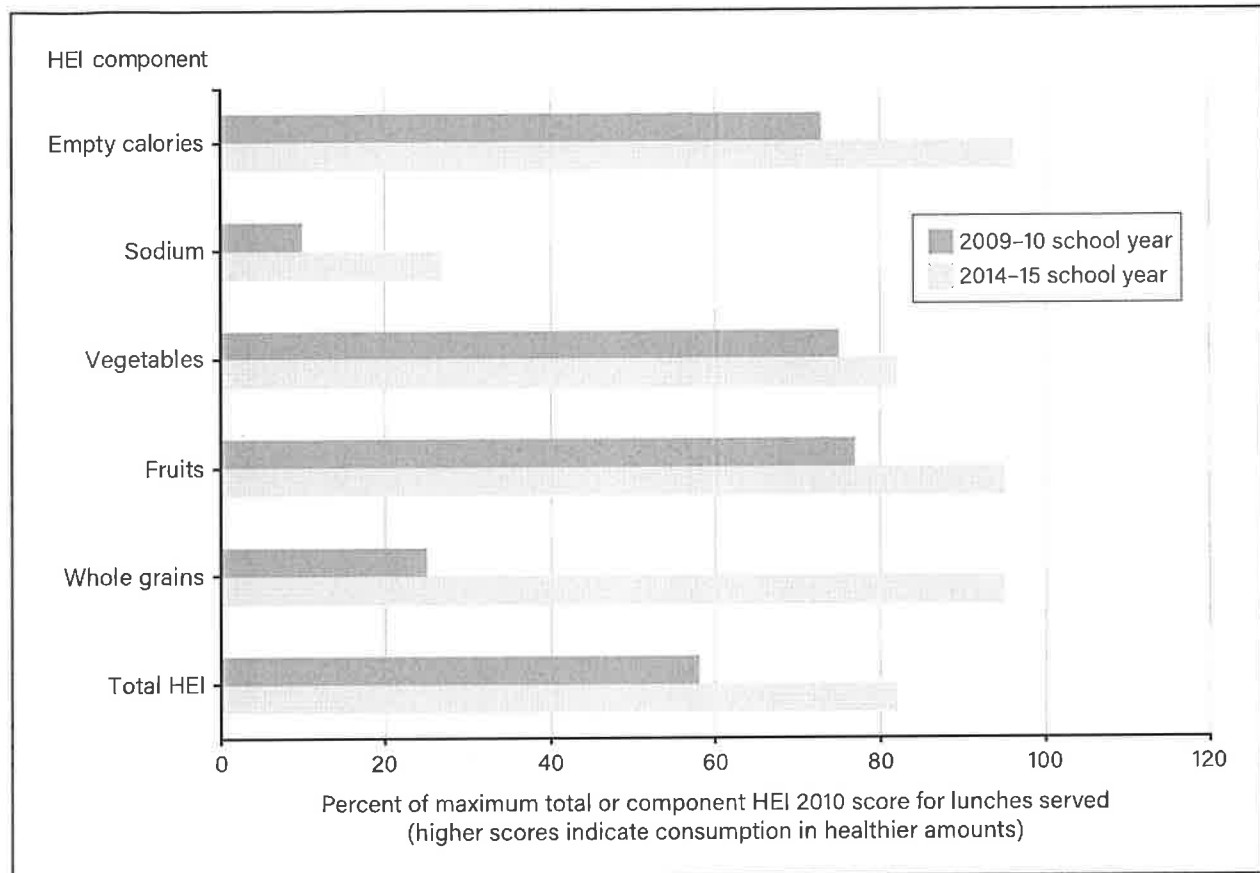
Following the HHFKA, USDA made several changes to the NSLP. Researchers have explored the link between these changes and changes in the nutritional quality of the lunches served through the program, plate waste, and the share of SFAs that adopt universal free meals.

Effect of HHFKA on the Nutritional Quality of Lunches and Plate Waste

Aiming to improve the diet quality of students, the USDA set minimum requirements for servings of highly nutritious vegetables (e.g., dark green and orange vegetables) and whole grains. It also set a minimum and maximum for the average calories and total sodium per meal (Ralston & Newman, 2015). The SNMCS also examined the nutritional quality of school meals using data collected in the 2014–15 school year and found that most SFAs were able to produce and serve meals that met these standards. Moreover, between the 2009–10 and 2014–15 school years, the overall 2010 Healthy Eating Index (HEI) score increased. The HEI is a measure used to assess how well a set of foods aligns with the *Dietary Guidelines for Americans, 2010*, with higher scores indicating greater healthfulness. Scores for specific components of the HEI also increased, such as for whole grains, fruits, and vegetables (whose greater consumption is an aim of the NSLP), as well as for sodium and empty calories (whose reduction is an aim of the program) (figure 6) (Gearen et al., 2019). SFAs made use of USDA Foods to help achieve the nutritional improvements in meals. Between 2011 and 2017, the share of USDA Foods entitlement funds that were used to purchase fruits and vegetables (through USDA Foods or the USDA/Department of Defense Fresh Fruit and Vegetable Program) increased from 23 percent to 36 percent, while the share of grain purchases that were whole grains increased from 44 to 65 percent over the same period (Ollinger & Guthrie, 2022).

Figure 6

2010 Healthy Eating Index scores for National School Lunch Program lunches served, total and select components, 2009–10 and 2014–15 school years



HEI = Healthy Eating Index.

Note: All differences between school years 2009–10 and 2014–15 are statistically significant (p -values < 0.05). A higher score for vegetables, fruits, and whole grains reflects greater consumption of these food groups, while a higher score for sodium and empty calories reflects lower consumption.

Source: USDA, Economic Research Service based on Gearan et al. (2019). *School Nutrition and Meal Cost Study, Final Report Volume 2: Nutritional Characteristics of School Meals*. U.S. Department of Agriculture, Food and Nutrition Service.

Policymakers and the School Nutrition Association, among others, raised concerns about whether the improvement in the nutritional quality of the meals served—particularly increases in servings of whole grains and amounts and varieties of fruits and vegetables and reductions in sodium—would reduce participation in the NSLP and increase plate waste (Kogan, 2019). However, the SNMCS found that schools with the highest quality of NSLP lunches served also tended to have the highest participation rates (Fox et al., 2019). Studies conducted by other researchers using data from California, New Jersey, and Washington State found that changes to the nutritional quality of school meals did not affect NSLP participation (Johnson et al., 2016; Vaudrin et al., 2018; Anderson et al., 2018).

Estimates for plate waste vary across students from different backgrounds, with females and younger students typically wasting more food than males and older students. The SNMCS found that plate waste was highest for vegetables (31 percent wasted) and milk (29 percent wasted) and lowest for entrees (16 percent wasted) and meat/meat alternatives (14 percent wasted) (Fox et al., 2019). These rates are not markedly different from estimates of plate waste presented in other studies published since the 1970s. These studies found rates of waste that varied by the age and gender of students and other factors (e.g., year and geography) but that generally have been greater than 30 percent (Shanks et al., 2017). Overall, the SNMCS found no relationship between the HEI scores of NSLP lunches and plate waste but found that compliance with the program's

nutrition standards was associated with reduced plate waste (Fox et al., 2019). A USDA, ERS study using data from 2005 found that students who attended schools that served fruits and vegetables in the amounts required by the HHSFKA consumed more of them than those who attended schools that did not serve them in the required amounts (Newman, 2013). Other researchers using data collected in four low-income, urban Massachusetts schools found that students consumed more fruits and vegetables after the HHSFKA standards were in place because they were more likely to select a fruit and they were served a larger portion of vegetables but consumed the same proportion as when they were served less (Cohen et al., 2014).

Two USDA-supported studies using data from the National Health and Nutrition Examination Survey collected from 2009–10 to 2015–16 examined students' overall dietary quality before and after changes to the nutritional content of school meals required by the HHSFKA were implemented. They found that overall diet quality improved after the updated nutrition standards came into effect (Valizadeh & Ng, 2020; Smith et al., 2021). Significantly, both students who were eligible for free and reduced-price meals and those who were not experienced improvements in their diet after changes motivated by the HHSFKA were implemented (Smith et al., 2021).

The NSLP, specifically, has also been linked to improvements in students' overall diet quality. The SNMCS compared the quality of food NSLP participants and similar nonparticipants consumed at lunch and over a 24-hour period. The study found that NSLP participants consumed lunches that were lower in calories, total fat, saturated fat, and sodium than lunches consumed by similar nonparticipants. NSLP participants were also more likely to consume milk, vegetables, whole-grain-rich bread products, and fruits or 100 percent fruit juices and less likely to consume desserts, snacks, and beverages other than milk or 100 percent juice. While most of these differences did not persist over a 24-hour period, NSLP participants had higher daily intakes of whole grains and a healthier daily diet overall (Fox et al., 2019). Another study using data collected for the SNMCS explored the quality of lunches consumed by NSLP participants and similar nonparticipants by income and race and found that lower income, higher income, non-Hispanic White, and non-Hispanic Black students who participated in the program consumed healthier lunches than their counterparts who did not (Gearan et al., 2020).

Data from other sources corroborate findings from the SNMCS. A USDA, FNS study using National Health and Nutrition Examination Survey data collected from 2011–2012 through 2015–2016 found that NSLP participants eligible for free and reduced-price meals had healthier diets than similar nonparticipants. The study also found that a higher percentage of NSLP participants eligible for free and reduced-price meals consumed vegetables, fruits and 100 percent fruit juice, milk and milk products, and mixed dishes over a 24-hour period compared to similar nonparticipants. Diet quality was about the same across NSLP participants and nonparticipants who were not eligible for free or reduced-price meals. However, participants consumed more mixed dishes, milk and milk products, and fewer salty snacks, than nonparticipants over a 24-hour period (Gleason et al., 2022).

Adoption of Universal Free Meals

Higher student participation in the NSLP may help SFAs meet their budgetary constraints. Greater participation means more benefits delivered, as well as the possibility of economies of scale. The Community Eligibility Provision (CEP) allows eligible schools, groups of schools, or school districts to offer free meals to all students. Between school years 2014–15, the first year CEP was available to all schools, and 2018–19, the share of NSLP-participating schools that adopted CEP rose from 15 to 30 percent (Billings & Carter, 2020). This can be attributed to both an increase in the number of school districts and schools eligible to adopt

CEP as direct certification improved and expanded³³ as well as the participation rate among eligible schools. The number of students enrolled in a CEP school rose from 6.7 million in 2014 to 16.2 million in 2021 (Murdoch et al., 2022; Perez & FitzSimons, 2022). A USDA, FNS study found that when eligible districts adopted CEP, participation in NSLP increased by 4.4 percentage points (6.8 percent), on average, relative to similarly eligible schools that did not adopt CEP (Murdoch et al., 2022). Numerous studies by other researchers have also found that providing free meals to all students increased overall participation in school meal programs (Cohen et al., 2021; Toossi, 2024c).

The CEP participation rate varies across States and according to school and district characteristics (Billings & Carter, 2020; Rogus et al., 2018; Perez & FitzSimons, 2022). Because the share of meals reimbursed at the free-meal rate increases as the identified student percentage (ISP) increases, the greater the ISP, the more likely schools and districts are to participate, up to the break-even ISP of 60 to 65 percent. At that ISP, the cost of providing school meals for free to all students is offset by Federal reimbursements.³⁴ However, schools with ISPs above 65 to 70 percent are slightly less likely to participate than those at the break-even ISP. This may be because these schools receive other funding based on the composition of their individual student eligibility certifications, such as education funding through Title 1A (Billings & Carter, 2020; Rogus et al., 2018).³⁵

Longstanding and Emergent Issues Facing the NSLP

The NSLP has undergone many changes to its rules and implementation since it was established in 1946. The USDA has the authority to pursue certain changes to the NSLP under existing legislation, such as changes to the program's nutrition standards. Other changes to the program are typically made through new legislation.

One recurring issue is nutrition standards for NSLP lunches. The HHSFKA not only required USDA to update nutrition standards for NSLP lunches to reflect recommendations established in the *Dietary Guidelines for Americans, 2010*, but it also required USDA to update these standards to be consistent with the goals of the most recent guidelines. The latest iteration of these guidelines, the *Dietary Guidelines for Americans, 2020–25*, recommended limiting added sugars to less than 10 percent of calories per day. However, 70 to 80 percent of children aged 5 to 18 exceeded the recommended limit (USDA and U.S. Department of Health and Human Services, 2020). Further, a 2022 USDA, FNS report to Congress found that 69 percent of schools prepared lunches with 10 percent or more of calories from added sugars. The main source of added sugars was flavored fat-free milk, which contributed 47 percent of the added sugars in lunches. The report also found that 4 of the 10 most offered competitive food items during school lunches contained more added sugars than recommended in the *Dietary Guidelines for Americans*. These were canned fruit, crispy rice cereal bars or treats, low-fat cookies, and low- or reduced-fat ice cream, frozen yogurt, or sherbet (USDA, FNS,

³³ The key to becoming eligible for CEP prior to October 26, 2023, was to have an identified student percentage (ISP) of 40 percent or greater. The minimum ISP was changed to 25 percent or greater effective October 26, 2023. Direct certification (required as of the 2008–09 school year by the 2004 Child Nutrition and WIC Reauthorization Act) continues to be developed and improved upon as schools and States explore their options for linking students to program administrative records and as more States adopt Medicaid direct certification (Billings & Carter, 2020). USDA, FNS (2018a) found that the number of States that met the requirement to directly certify at least 95 percent of school-aged children in SNAP households more than doubled (from 12 to 28) between the 2013–14 and 2016–17 school years and increased further to 40 States in the 2018–19 school year (Ranalli et al., 2021). Direct certification through Medicaid (still a demonstration project and not used in all States) has been found to increase the percentage of students directly certified for free and reduced-price meals (Hulse et al., 2022).

³⁴ Schools serving free meals to all students are reimbursed for each meal at 1.6 times the free meal rate. Absent other cost savings, schools stand to break even when their ISP is 62.5 percent.

³⁵ Title 1A provides additional funding to schools depending on their share of low-income students. Many schools rely on their share of free and reduced-price certified students, as determined through paper applications, as a proxy for their share of low-income students, and so they may choose not to participate in CEP. In response, the U.S. Department of Education has developed alternatives to using free and reduced-price meal certification data, such as allowing schools to use their ISP, household income surveys, and other measures of poverty (Billings & Carter, 2020).

2022b). To bring NSLP nutrition standards in line with the most recent edition of the *Dietary Guidelines for Americans*, USDA, FNS issued updated standards in April 2024 that gradually impose further limits on sodium and that introduced restrictions on added sugars (USDA, FNS, 2024b).

Another issue is the rising costs of procuring food products and other supplies and of recruiting and retaining the staff necessary to operate school meal programs. Necessary cafeteria and/or kitchen renovations and the purchase and installation of new equipment may impose additional costs. In a November 2022 survey conducted by the School Nutrition Association, 99.8 percent of school meal program directors cited increasing costs as the top challenge they faced, and about the same share expressed concern that Federal reimbursement rates were inadequate to cover the cost of producing school meals. While the Keep Kids Fed Act of 2022 increased Federal reimbursement rates for the 2022–2023 school year, most survey respondents indicated that the higher reimbursement rates failed to cover their costs (School Nutrition Association, 2023a).

Another issue is access to free school meals for all students regardless of their household's income. The number of schools adopting universal free meals increased significantly since passage of the HFFKA (Billings & Carter, 2020). Assumed benefits of the policy include increased student participation in school meal programs, decreased financial burden on families, elimination of unpaid meal charges, reduced administrative burden, and increased revenue (Murdoch et al., 2022). The policy gained further prominence with the expiration of a COVID-19 pandemic waiver that allowed schools to provide free meals to all students in the 2020–21 and 2021–22 school years. Beginning in the 2022–2023 school year, schools were once again required to charge some students for school meals. A USDA, ERS study using Household Pulse Survey data from December 2022, after the COVID-19 waiver had expired, found that nearly a third of households with school-age children who paid for school meals reported that doing so made it difficult to pay for their other expenses (Toossi, 2023a). A followup USDA, ERS study using the same data through the first week of May 2023 found that this share remained about the same throughout the second half of the 2022–2023 school year (Toossi, 2023b).

The expiration of the COVID-19 pandemic waiver led some States to adopt their own statewide universal free meal policies. As of August 2023, eight States had authorized funding to subsidize the continued provision of free school meals to all students permanently, and others are considering doing the same (School Nutrition Associate, 2023b). One study using Household Pulse Survey data for December 2021 through November 2022 found that households with school-aged children in States that adopted statewide universal free meal policies were more likely to report that their children participated in school meal programs and less likely to report that their children sometimes or often did not have enough to eat, compared to those in States without these policies (Toossi, 2024c). Other States took a more limited approach, passing laws or authorizing additional funding to encourage school districts eligible to serve free meals to all students through CEP to do so (School Nutrition Associate, 2023b).

At the Federal level, USDA, FNS issued a new rule on September 26, 2023, lowering the ISP threshold for CEP from 40 percent to 25 percent beginning October 26, 2023 (USDA, FNS, 2023b). The lower threshold made more schools and school districts eligible to offer free meals to all students through CEP. Changing the multiplier used to determine Federal reimbursements to schools using CEP, the list of means-tested programs used to certify students for free or reduced-price meals, and/or the number of States using Medicaid to directly certify students for free or reduced-price meals could also impact CEP eligibility and/or uptake.

A related issue is the income thresholds for free and reduced-price meal eligibility. These thresholds were last adjusted in the 1980s, when the threshold for free meals was raised from 125 to 130 percent of the FPL, and the threshold for reduced-price meals was reduced from 195 to 185 percent of the FPL (Ralston et al., 2008). Since 2022, several States have adjusted these thresholds. For example, New Jersey authorized additional funding to subsidize the provision of free meals to students from households with incomes up to 200 percent

of the FPL for the 2022–2023 school year,³⁶ while Louisiana did so for students from households with incomes up to 185 percent of the Federal poverty level for the 2023–24 school year.³⁷

Research and Data Needs

While the body of research on the NSLP is large and growing, most studies rely on data collected before the COVID-19 pandemic. Given social and economic changes over the last decade, more recent data are needed to understand current trends in, and determinants of, NSLP participation, expenditures, and plate waste, as well as the NSLP's impact on children's well-being. This information can help policymakers, program administrators, and other stakeholders better assess the program's performance and SFAs' financial status and identify new challenges and approaches to address them. Further research can also explore how changes to the program's rules—such as new limits on added sugars and changes that would enable more schools to serve free meals to all students—may affect SFAs and children and their families. For example, investigating the effect of statewide adoptions of universal free meals on children's well-being and SFA finances may provide insights on the effect of a larger scale, national policy improving access to free school meals. Future research could also expand our understanding of the broader effects of the NSLP, including how the program helps to support children's well-being within the overall food and nutrition assistance landscape and how it relates to the agricultural, food manufacturing, and food retail sectors.

One challenge to this research agenda is a lack of comprehensive data. Most studies examining the NSLP rely on national survey data, primary data collected from a handful of schools, or administrative data provided by schools or school districts. While each of these have strengths, they also have limitations. For example, a limitation of survey data is that the information collected is based on respondent reports that may not be accurate for a variety of reasons. These may include, for example, a respondent's inability to recall certain details (e.g., the number of days their children participated in the NSLP in the last 7 days) or unwillingness to respond truthfully to a question, if at all (e.g., whether their children receive free school meals). Another limitation of survey data is that often only a limited set of information is collected to minimize the burden on respondents. For example, a survey may collect information on whether the children in a household participated in the NSLP in the past month or year and whether the household experienced food insecurity over the same period, but not on children's food consumption, dietary intake, health outcomes, or academic performance.

Some researchers rely on primary data collection when the information they need is not included in available survey datasets. For example, researchers studying plate waste may get permission from schools to observe and collect data on what and how much their students consume during school meal periods. However, primary data collection on a large scale is often cost-prohibitive, so researchers can only collect information from a few schools. This may mean that results will be unique to a specific context and not generalizable to all schools or the broader school-aged population. Alternatively, researchers may use administrative datasets obtained directly from schools or school districts. These datasets may include more reliable, comprehensive data on, for example, student participation in school meal programs (e.g., day, time, and free or reduced-price meal certification) and academic outcomes (e.g., attendance or test scores). However, administrative datasets often lack other information that may be of interest but not necessarily relevant to a school or school district's operations and, therefore, are not collected (e.g., students' food insecurity). Relying on administrative data from schools or school districts may also restrict the ability to generalize a study's findings.

³⁶ Working-Class Families' Anti-Hunger Act (A2368/S1677).

³⁷ Act 305-HB282.

Studying the NSLP is further complicated by the different ways in which schools and school districts implement the NSLP at the local level. While the Federal Government sets certain parameters for the program, SFAs and their school districts have wide discretion in how they implement the program. This includes how NSLP lunches are prepared, the kinds of lunches SFAs choose to offer, the cafeteria setting in which lunches are served, the time of day lunches are served, the time allotted for eating lunch, the presence of competitive foods, and off-campus policies allowing students to leave the school premises for lunch, among numerous other factors. Other factors are outside the control of SFAs, such as the number of food retailers and restaurants within the vicinity of a school. No single, nationally representative database documents all of these factors.

Efforts to collect more detailed, comprehensive information and to develop publicly available datasets linking survey, administrative, and other data across school districts and SFAs could help to advance NSLP research and produce new insights. This may be done by linking existing datasets and/or providing additional funding to school districts for compiling and publishing more detailed information on their school meal programs and relevant policies, as well as their students (e.g., academic performance). Existing legislation requires schools to directly certify students for free and reduced-price meals through their participation in select means-tested programs, exemplifying the possibilities of data linkages across existing datasets.