Photo Courtesy of the Urban School Food Alliance

Nourish to Flourish

Scaling Up Excellence in the School Meals Experience that's Vital to Fueling Every Child's Success

URBAN SCHOOL FOOD ALLIANCE

NDC NATIONAL DAIRY COUNCIL™

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Note: This paper is intended to stimulate discussions at the Nourish to Flourish Summit and is not intended in any way to influence government policy.

About the Urban School Food Alliance

The Urban School Food Alliance was created by school food professionals in 2012 to address the unique needs of the nation's largest school districts. The nonprofit group allows the districts to share best practices and leverage their purchasing power to continue to drive quality up and costs down while incorporating sound environmental practices. New York, Los Angeles, Chicago, Dallas as well as Miami-Dade, Orange County and Broward County in Florida, together offer service in over 4,765 schools to 3.1 million children daily. This translates to more than half a billion meals a year. The coalition aims to ensure that all public school students across the nation receive healthy, nutritious meals through socially responsible practices. To learn more about the Urban School Food Alliance or to support its work, please visit www.urbanschoolfoodalliance.org

About National Dairy Council

National Dairy Council (NDC), the non-profit organization founded by dairy farmers and funded by the national dairy check-off program, has been committed to research-based nutrition education and communications since its start in 1915. NDC is dedicated to bringing to life the dairy community's shared vision of a healthy, happy, sustainable world – with science as its foundation. NDC's staff of registered dietitians, researchers and nutrition experts promote dairy's role as part of a balanced diet, as well as educate people about the farm-to-table, table-to-farm connection. NDC has helped launch groundbreaking programs to benefit the health and wellness of children and adults, including Fuel Up to Play 60, which provides increased access to, and encourages youth to consume, nutrient-rich foods and achieve 60 minutes of physical activity each day. NDC has also helped launch the Future of Food Partnership and The Great American Milk Drive, which both address food insecurity in America. For more information visit www.NationalDairyCouncil.org and www.DairyGood.org

Introduction

People are in search of food that is local and environmentally friendly which coincides with a growing concern of childhood obesity and food insecurity. Many Americans are in search of ways to improve food consumption and food distribution for the nation's children. School meal programs focus on offering nutrient dense foods within caloric recommendations and concentrate on nutritious fruits, vegetables, whole grains, lean meats and low-fat dairy that can help improve the health of our children now and for a lifetime. At a time of keen interest, the nation's nutrition programs for children are designed to address the questions that Americans in all walks of life are asking.

The enormous task of promoting public health through adequate and nutritious eating patterns has many components, from modifying nutrient levels in the food supply to encouraging the presence of more grocery stores or access points to good food in low-income communities.

But what if there was an intervention that could potentially affect nearly all Americans between the ages of 5 and 18? What if this intervention affected as many as half the calories these young people consumed each weekday? And what if the intervention was already in place for more than half of young Americans – with the remaining portion already present in a setting where the intervention could easily happen?

The answer to these questions, of course, is that the intervention already exists. It is available through the school meal and other nutrition programs administered by the U.S. Department of Agriculture in 100,000 schools across the country. However, a significant portion of children, for a variety of reasons, do not take advantage of these nutritious school meal opportunities; currently only a little more than half are already getting the meals.[1] For these children, school meals can easily comprise half or more of their daily nutrition intake.

For the past two decades, school meals have been no stranger to controversy. Their fat and sodium content has been criticized (and subsequently reduced).[2] The quality of the meals as well as the environment in which they are served has been questioned.

It is easy to list problems and complaints, but the bigger picture is that school meal programs represent a tremendous platform for providing great-tasting, nutritious foods; teaching lifelong nutritional habits; and addressing food insecurity among low-income students. ***There is no more direct pipeline to helping improve the nutrition of more American youth.*** School meals can become even more nutrient-rich, their quality can further improve, and schools can gain new resources to more effectively promote healthy diets. All this can happen, but it will not happen automatically. Communities, parents, businesses, educators and philanthropists need to join with school nutrition professionals, school administrators, teachers and students to allow school meals to realize their full potential. The results will help nourish the next generation of leaders, help give a more equitable start in life to low-income youth and help contribute to long-term gains in public health and wellness.

Section I: Background, History and Perspective

A Snapshot of the Programs… and Their Potential

USDA operates several programs that provide nutritious meals or snacks to school-age students. These programs include the following:

- The **National School Lunch Program (NSLP)**, the largest and oldest of the child nutrition initiatives[3]
- The **School Breakfast Program (SBP)**, now in almost as many schools as the NSLP but with significantly lower participation per school[4]
- The **Summer Food Service Program (SFSP)** and Seamless Summer (part of the NSLP), which provide breakfasts, lunches, suppers and supplements when school is out of session, in a relatively small but growing number of locations (Note: some summer meals are also provided through the NSLP)[5]
- The **Child and Adult Care Food Program (CACFP)**, which primarily serves younger children in day-care institutions, but also offers suppers to at-risk youth, with some programs being located in schools[6]
- The **Special Milk Program (SMP)**, which provides milk primarily in the small number of schools that do not participate in the NSLP, but also in summer camps[7]

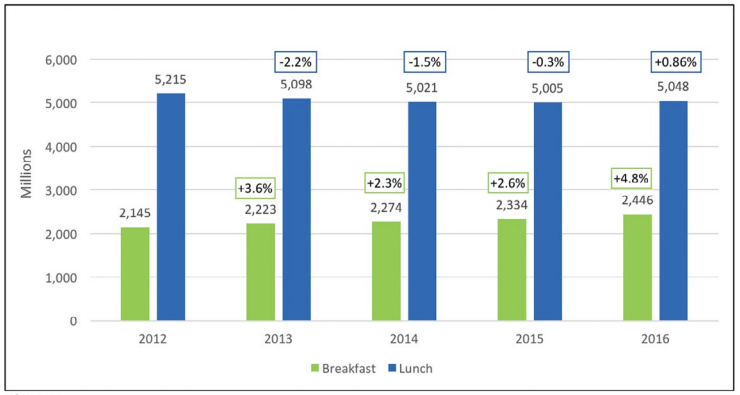
Schools providing lunch and breakfast generate some eye-popping numbers such as the following: (Figure 1)

- Almost 100,000 schools and residential child-care institutions offer the NSLP, and more than 91,000 offer the SBP[1]
- Each school day in fiscal year (FY) 2016, an average of 30.3 million students ate school lunches, while 14.6 million ate school breakfasts[1]
- Students who eat school lunch make up more than 59 percent of the student body, while those who eat school breakfast account for 30 percent of all students in participating schools[1]
- In FY 2016, the NSLP served more than 5 billion lunches, while the SBP served 2.4 billion breakfasts[1]
- In FY 2016, the federal government spent slightly more than $13.5 billion in the NSLP, which comprised $12.2 billion in meal reimbursements to schools, and $1.3 billion in commodities that USDA purchased and donated to school meal programs; and in the same year, federal costs totaled just over $4.2 billion in the SBP[8]

The programs have a major footprint in the nation's schools, as well as in the lives of families and communities. This footprint is not just about good nutrition. Recent research notes the following:

- Providing low-income middle school students with free school breakfast increased their overall nutrition intake which was positively associated with increased math grades[9]

Figure 1: Total Meals Served: Breakfast & Lunch



Sources:
- USDA, FNS. Program Information Report (Keydata). U.S. Summary, FY 2016-FY 2017. (Released Feb. 3, 2017; data through Nov. 2016).
- USDA, FNS. National School Lunch Program: Participation and Lunches Served. Accessed February 16, 2017.
- USDA, FNS. School Breakfast Program: Participation and Meals Served. Accessed February 16, 2017.

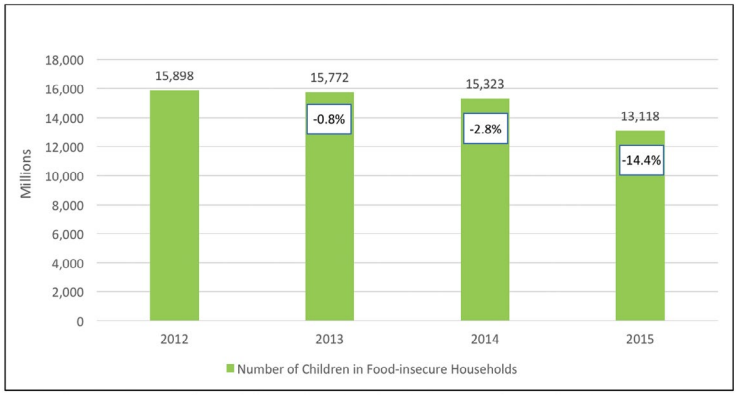
- Participation in the SBP has been associated with improved attendance and decreased tardiness[10, 11, 12]
- Children (6-18 years), of both low- and high-income households, who consumed breakfast had better diet quality than those children not consuming breakfast[13]

Of course, nutrition outcomes are better too. School breakfast participants are more likely to consume diets that are adequate or exceed standards for important vitamins and minerals (e.g., vitamin C, vitamin A, calcium, phosphorus, etc.)[14] This reflects requirements that all school meals must conform to major recommendations in the Dietary Guidelines for Americans.[15]

The meal and related programs represent one way of addressing the fact that most children and adolescents fall short of consuming adequate amounts of healthy foods, despite that their total caloric intake may be excessive. According to the 2015-2020 Dietary Guidelines for Americans (DGA):

- Average daily intake of vegetables is below minimum recommended levels, on average, for all school-age groups of both sexes[16]
- While the majority of 4-8-year olds have adequate fruit intake, older children and adolescents fall well short of recommendations (e. g., the recommendation for 9-13-year olds is at least 1.5 daily servings but they actually consume only about 1)[16]

Figure 2: Number of Children in Food-insecure Households



More than one out of six children lived in food-insecure households during 2015

Source: Coleman-Jensen A, Rabbitt M, Gregory C, Singh A. Household Food Security in the United States in 2015, ERR-215, U.S. Department of Agriculture, Economic Research Service, September 2016. Accessed February 16, 2017.

- On average, by the time they are 4 years old, children fall below the Dietary Guidelines for Americans' recommended daily dairy servings[17]
- While intake of refined grains is well above the maximum recommended daily amount for all school-age groups, and for both sexes, intake of whole grains is below minimum recommendations for all of the same groups – at less than one ounce per day[16]

Nutrient requirements for school meals seek to help ensure that students have the opportunity to get appropriate amounts of all these and other foods. This will be discussed more, later.

These shortfalls in healthy food consumption affect students at all income levels. However, another strength of the school meal programs is that – because they focus benefits on students from low-income households who qualify for free or reduced-price meals – they can specifically address and help ameliorate food insecurity among children from low-income families. According to USDA, more than one out of six children, or about 13.1 million Americans under age 18, lived in food-insecure households during 2015. (Figure 2) This represents an improvement compared to previous years, but still means that far too many families "lacked access to enough food for an active, healthy life for all household members," as USDA put it.[18]

Photo Courtesy of Food Research and Action Center (FRAC)

Historical Background

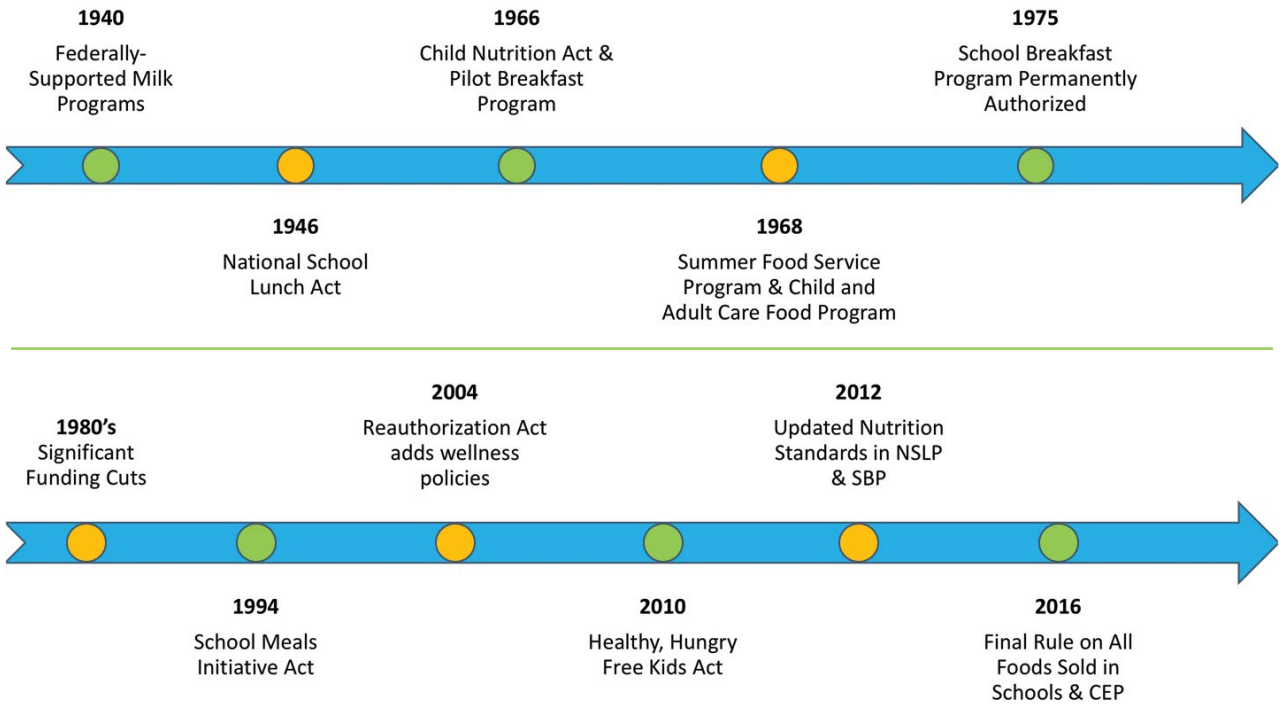
School meals have numerous antecedents in American history,[19] but the development of modern programs coincided with the legacy of poverty and malnutrition from the Great Depression of the 1930s. Federally-supported school milk programs began in Chicago and New York City in 1940, providing milk to schools located in low-income neighborhoods. In the year that followed, several other cities, including Boston, Omaha, Birmingham and Ogden, Utah, initiated similar programs.[19] In the same period, in-school lunch programs began to receive federal reimbursements. What is now known as the National School Lunch Program (NSLP) was authorized in 1946.[19] This statute has been amended frequently since then, and is now formally known as the Richard B. Russell National School Lunch Act, after the Georgia Senator who championed the program. President Harry Truman signed the 1946 law, noting the study that showed the biggest reason military recruits had been rejected during World War II was for diet-related health reasons, including malnutrition.[20]

The NSLP expanded over subsequent decades, with almost half of all U.S. schools having set up food service operations by the end of the 1950s.

In 1966, as part of a new statute called the Child Nutrition Act, Congress created a pilot program to offer breakfasts in schools. This was the beginning of the School Breakfast Program (SBP), although it was not permanently authorized until 1975.[21] A few years before, under the Nixon Administration, a White House conference on hunger and malnutrition led to the development of free and reduced-price meals for students who could not afford the full cost of a lunch. The concept was not new, but the federal standards replaced previous requirements that had been implemented unevenly in local schools.[19]

Also in the 1960s, the predecessors to the current Child and Adult Care Food Program (CACFP) and Summer Food Service Program (SFSP) were developed to provide meals and snacks outside the school setting and after the school year ended.[21]

Figure 3: Evolution of School Meals



Like many other federal programs, school meals were subject to larger budget pressures. In the early 1980s, deficit-cutting efforts did not spare the meal programs; free and reduced-price lunch reimbursement rates were reduced, and cuts also affected donated commodities and assistance for kitchen equipment purchases. Participation in school lunch programs fell 14 percent from 1980 to 1982 as schools raised meal prices in response.[21] This was also the period in which food sold in competition with school meals – through vending machines or as a la carte items in the cafeteria – became a growing factor in the school food equation; schools' dependence on these sources of revenue increased, and the U.S. Department of Agriculture (USDA) lost in court when it tried to assert jurisdiction over school vending machines.[22] (Note: It took an act of Congress decades later, in 2010, to give USDA this authority.)

As time went on, fiscal issues became less prominent than dietary issues. The first Dietary Guidelines for Americans were published in 1980, with subsequent editions every five years. These guidelines – the official dietary advice of the U.S. government – focused not only on nutrient adequacy, but also reflected rising concerns that intake of some nutrients was excessive. Initially, the spotlight fell on total dietary fat, saturated fat and cholesterol.[23]

Photo Courtesy of the Urban School Food Alliance

In 1994, Congress required that school lunches should conform to the Dietary Guidelines. As a result, the total fat content in school lunches fell from 39 percent to 35 percent. A decade later, in 2004, Congress went beyond meal contents and required schools to establish local "wellness policies" to address nutritional standards for all foods sold in schools, including those that competed with school meals. Though developing the policies was mandatory for all schools receiving federal meal reimbursements, the contents of the policies were not specified in the law beyond broad, general guidance.[21]

During this period, schools made significant changes in the mix of foods they purchased. USDA commissioned "school food purchase studies" in 1996/97 and 2009/10. During this period, public school enrollment grew 15.6 percent and NSLP lunches served grew 19.7 percent, while SBP breakfasts served grew a much larger 65.2 percent as many more schools introduced breakfast service. At the same time, schools significantly changed the mix of vegetables in their meals, chiefly by reducing potato purchases. They increased fruit and juice purchases by about three times as much as the increase in lunches served. Milk and other dairy product purchases grew 35 percent. Meanwhile, the schools substantially decreased purchases of fats and oils, sugars, syrups and desserts.[24]

The focus of public health discussions was, by this time, squarely on rising rates of overweight and obesity, particularly among the nation's youth, along with chronic diseases associated with excessive weight.[25] For example, type 2 diabetes, previously rare among children, had begun appearing with greater frequency.[26] The increasing linkages between dietary choices and public health outcomes coincided with a series of reports from the Institute of Medicine (IOM) of the National Academy of Sciences. On request by USDA, the IOM recommended standards for several child nutrition programs.[27, 28] In broad terms, USDA ultimately adopted most of the IOM's recommendations (e.g., maximum calorie levels for school meals for the first

time) – as the Department implemented a new law, the Healthy, Hunger-Free Kids Act of 2010 (HHFKA).

The HHFKA aimed at encouraging healthy school environments throughout the entire campus. Additional lunch reimbursements were provided to schools that met nutrition standard requirements in the meal programs. As was the case with other foods, the law required school milk to be consistent with the most recent Dietary Guidelines (i.e., low-fat or fat-free in the case of milk). For the first time, as noted above, Congress required USDA to set standards for foods sold through vending machines or a la carte in competition with school meals. And to better serve low-income communities and reduce administrative costs in their schools, the HHFKA introduced a Community Eligibility Provision (CEP) that allows schools to provide lunch and breakfast free of charge to all students, if a threshold number of students are already eligible for free and reduced-price meals.[2]

Current School Meal Regulations – A Summary

Regulations for the NSLP and SBP traditionally specified the food categories that were to be served or offered with each meal, and also specified a minimum number of calories to be provided with the meals. Since the 1990s, the regulations also contained a restriction on fat content in order to conform more closely to the DGA.[21]

The regulations implementing the HHFKA made significant changes in these requirements, in an effort to improve school meals' nutritional content and to address concerns about childhood overweight and obesity. Separate but related regulations placed new restrictions on the types of foods and beverages that could be sold in competition with the NSLP and SBP. The complete meal rules, including detailed tables of food and nutrient requirements by meal type and grade level, can be found here.[29]

Among the major provisions in the rules, the following stand out:

- Food Components remain (1) fluid milk, (2) fruit, (3) vegetables, (4) grains and (5) meats/meat alternates. However the following considerations apply:
  - Students must take a fruit or vegetable in order for the meal to be reimbursable, as well as taking a minimum number of meal components
  - There are weekly requirements for several subgroups of vegetables (e.g., dark green, red/orange, etc.)
  - Both grains and meats/meat alternates had new weekly ranges, though these were subsequently modified
  - After a phase-in period, all grains were to be whole-grain rich, though Congress subsequently required procedures by which states could temporarily exempt schools from this requirement
  - Milk is required to be fat-free or low-fat, and if flavored, can only be fat-free
  - USDA set standards by grade level for number of meal components, calories and sodium[30]

Photo Courtesy of the Urban School Food Alliance

- Congress has reviewed the sodium requirements and could delay the second and third target ranges, but these are not scheduled to take effect until the 2017/18 and 2022/23 school years, respectively. (Note: USDA announced that schools unable to meet the second target in 2017/18 would not be penalized, though the target itself would technically be in effect)[31]
- Meals not only have minimum calorie requirements but also maximums; compliance with the maximums is measured over a weekly average, (i.e., some meals could exceed the limit as long as others fell sufficiently below it)
- *Trans* fat content in meals must be zero, as determined by nutrition labels, while meals are also required to maintain the saturated fat content at below 10 percent of total calories[30]

As has been the case for decades, schools receive reimbursements from USDA via the designated state agency, for each meal served, as long as it complies with federal requirements. Depending on income level, students qualify for free, reduced-price or paid lunches. Reimbursement rates are established annually, to reflect food inflation. Under the HHFKA, schools get an additional 6 cents above and beyond the reimbursement rates as long as they implement the law's nutrition requirements.[32] Reimbursement rates for the 2016/17 school year can be found here.

USDA has also finalized most aspects of its "Smart Snacks" rule – nutrition standards for foods sold in vending machines, a la carte and in other venues that compete with school meals. Highlights of the Smart Snacks requirements include the following:

- Snacks are limited to products that are whole-grain rich; have fruits, vegetables, dairy or protein as their first ingredient; or, if a combination food, contain at least a quarter-cup of a fruit or vegetable[33]
- Most snacks are subject to limits on their total calories, sodium, fat and sugar content[33]
- Beverages are limited to water, low-fat or fat-free milk (fat-free if flavored), fruit and vegetable juice and a few other beverages at the secondary level such as sports drinks, coffee and non-caloric sodas[33]
- When an entrée is offered in the reimbursable meal program, it can also be sold a la carte on the same day and the following day, without regard to Smart Snacks standards; otherwise, it must conform to those requirements[33]

There are some exceptions to the rules (e.g., reduced-fat cheese is exempt from fat standards), but in general they place significant limits on the types of snacks and beverages that can compete with school meals, compared to prior practice in many schools.[33, 34]

In addition to the HHFKA of 2010 there have been substantial changes to the American with Disabilities Act over the past 10 years. Most notably food allergies can now be considered a disability which may involve special meal accommodations be made without any additional reimbursement to the school food provider putting further stress on the budget.

The Great Participation Debate

In the past, school meals were sometimes criticized for having too much fat or sodium or too many calories. In a sense, more recent criticism has been the opposite: Critics have asserted that in efforts to make meals healthier, the new regulations have led to meals that students dislike and refuse to eat. A proxy for efforts to determine whether this is true has been the rate of participation in school meals by students, but the question is more complex than it may first appear.

Average daily participation (ADP) looks at meals served compared to the number of days the schools serve the meals.

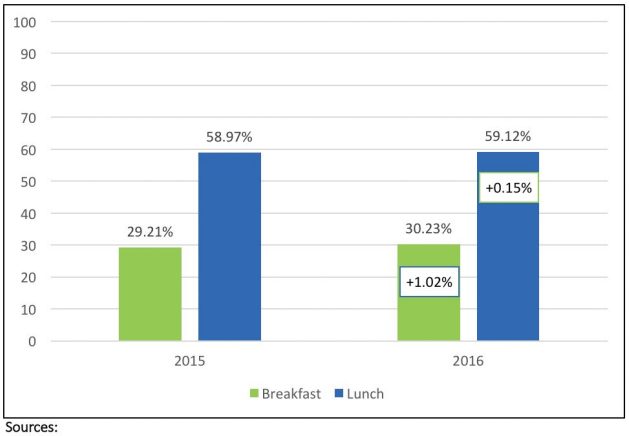
According to USDA, participation as a share of school enrollment, rather than attendance, in FY 2016 was 59.12 percent for the NSLP and 30.23 percent for the SBP.[1] This compares favorably, though with only marginal change, to shares of 58.97 percent and 29.21 percent, respectively, for the two programs in 2015.[35] (Figure 4) However, due to falling enrollment in participating schools, the total number of lunch participants fell to 30.3 million in 2016, down from 30.5 million in the comparable year-ago period.[36]

According to USDA data, the high for the total number of students eating lunch came in 2010 and 2011, with 31.8 million on an average day. Participation fell consistently after that, ending at the 30.3 million previously noted for 2016. The decline actually began in FY 2012, which corresponds to school year 2011/12, before most of the HHFKA regulations were implemented.[36]

A paper by the Food Research and Action Center (FRAC) notes that participation in free lunches continued to increase even as the reduced-price category was stagnant and the paid category declined. FRAC notes that 12.6 million children paid full price for lunch in 2006/07, but then began to decline to 8.8 million children in 2013/14. The organization notes a provision in the HHFKA that required some schools to raise the price they charged for full-price meals adversely affected participation by these students. (Note: The law's aim was to avoid the phenomenon of reimbursements for free and reduced-price lunches being used to, in effect, subsidize the full-price meals.)

In addition, the Great Recession of 2007-2009 could have played a significant role: A number of students would have shifted into the reduced-price or free categories as their families' incomes fell, and some who still had to pay could have shifted to lower-cost alternatives such as bringing food from home.[37]

Figure 4: Participation in Breakfast & Lunch (participation divided by enrollment)



Sources:
- USDA, FNS. Program Information Report (Keydata). U.S. Summary, FY 2016-FY 2017. (Released Feb. 3, 2017; data through Nov. 2016).
- USDA, FNS. Program Information Report (Keydata). U.S. Summary, FY 2015-FY 2016. (Released Dec. 9, 2016; data through Sept. 2016).

The Expansion Opportunity

In a sense, the arguments over the causes of lower participation may miss two larger points:

1. Most students in schools that offer the lunch and breakfast programs do use them – about 59 percent in school year 2015/16, as noted earlier.
2. The number who fail to take advantage of the programs is also sizable.

So there is good news that students are being offered nutritious lunches and USDA reports that more than 99 percent of participating schools are meeting the new nutrition standards.[38] There is also a remaining – and large – opportunity to improve nutritional outcomes for the rest of the student body.

In 2013, the last year for which the National Center for Education Statistics has both private and public school enrollment figures available, there were 55.4 million students enrolled in elementary and secondary schools in the United States.[39] That year, 30.7 million or 55.4 percent of those students participated in the NSLP.[36] (Note: USDA's stated participation rate for the year is slightly higher because the Department considers only those schools that actually utilize the NSLP, and not all do.)

Whichever calculation one prefers, the fact remains that 40 percent or more of children and adolescents enrolled in U.S. schools do not eat a school lunch each day. These students may skip lunch; they may purchase food from vending machines; they may bring a lunch from home or leave campus to eat at nearby quick-serve restaurants or other venues. In none of these alternative cases is there any assurance that the student is eating a balanced meal (e.g., a recent study comparing school meals with lunches brought from home found that the former are more nutritious).[40]

The next section discusses a number of ways that school meals, already nutritious and balanced, might be served to an ever-growing portion of the student body. No one underestimates the challenges, or seeks to idealize all current school meal programs. Yet the opportunity is there to nourish more children more effectively, help make a difference in long-term public health, and create a more educated consumer.

Photo Courtesy of U.S. Department of Agriculture

Section II: Ideas and Opportunities

This part of the background paper attempts to identify and explore a variety of opportunities to build excellence in school meals – starting with the meal programs' current successes and driving forward to still greater achievements. These opportunities may in fact begin with challenges, but they should end with a vision of how to get from today to an end state that is better – for children and their families, for schools, for communities and society.

The items below are far from an exhaustive list, and they are also not a prescriptive list. Think of this section more as a series of thought-starters than as a complete catalog.

One way to think about school meal opportunities is to group them into a small number of (sometimes overlapping) categories. Schools have **economic** opportunities – generating more resources that can produce great school meals. These meals constitute a great value for students – in terms of both nutrition and cost. Schools also have opportunities in **food and operations**: Thinking about what food is served, how it is presented to students, the role of various sectors in the procurement, production and service process, even the physical environment in which school meals are served. Additional opportunities exist in **management**: Managing programs with "back office" options with greater efficiency or otherwise making the trains run on time. And finally, schools enjoy numerous **social and educational** opportunities; Engaging with educators, the local community, with the students and their parents and with society to make a difference, improving not only individual nutrition but the world around them.

Economic Opportunities

Can Schools Create Value by Adding Nutrition Programs and Expanding Student Participation?

School nutrition programs must generally be self-supporting in a financial sense; like a business, they need to generate revenue that is sufficient to cover costs. At the same time finances must be top-of-mind for school nutrition directors, they also want to provide high-quality, nutritious, delicious foods that are appealing to their students. These objectives do not have to conflict and can actually be mutually reinforcing. To the extent that efficiencies can be maximized without sacrificing food quality or nutrition, school nutrition programs may be in a position to make additional investments in new or better foods and beverages, the cafeteria environment or other priorities.

While there are many ways to control spending, it is worth remembering that like a private business, school nutrition programs have both fixed and variable costs. One of the prime costs that is relatively fixed in the short term is labor (i.e., the compensation and benefits of school nutrition workers).

Some schools across the country have found that they can reduce the ratio of fixed (labor) costs to total costs and total revenue by adding more USDA feeding programs.[41] The large majority of schools now offer both breakfast and lunch. If the school adds after-school suppers or a summer feeding program, federal reimbursements will be received for the nutritious food provided under that program. Students gain a nutritional benefit, and with additional federal reimbursements, the school may attain a higher overall reimbursement. Hence, the cost-revenue structure of the school nutrition program may benefit.

Another way to reduce fixed costs by allocating them across greater revenue is simple in concept, though often challenging in practice. It is to increase participation rates in programs already offered in the school, such as lunch and breakfast. Without doubt, higher average daily participation (ADP) can drive down fixed costs per meal served. Schools that can find ways to raise ADP will, other things holding constant, tend to do better financially. By improving the quality of meals, schools can attract additional participants, generating revenue that will permit still more improvement in meal quality.

But finance is far from the whole picture. Whether feeding more students at lunch and breakfast or extending the school's food offerings into additional day parts or additional seasons of the year, schools can enhance the health and potential of students providing opportunities for them to be better nourished.

Thought Starters:

- What are major fixed costs that might be spread over new or increased revenue?
- What are benefits and challenges when schools introduce federal feeding programs that they did not previously offer? Are there barriers facing schools that could be overcome in creative ways?
- Are there best practices for increasing ADP? What are the most promising techniques or systems? Are there ways for the community, the private sector or others to intervene directly to increase ADP levels?

Can Foundations or Other Institutions Become School Nutrition Partners?

The U.S. student population *is* the nation's future. The workers, managers, families and leaders of tomorrow are already enrolled in school today. Giving them the best possible preparation for productive, meaningful lives is both a duty of society and an exciting opportunity. School nutrition, of course, is only a piece of this preparation, but it is an important piece.

Many entities throughout society may see school nutrition as an opportunity to make a difference. These may include the following:

- Charitable foundations whose missions call for them to act in communities to improve outcomes
- Large employers who value their future workforce and future consumers
- Academic institutions that are dedicated to using science and knowledge to improve lives
- Local community groups who want to enhance the future quality of life in their towns and cities

These groups may not be the ones we would first expect. Many people were surprised to see a group of retired generals, admirals and other high-ranking military officers speak out in support of school meals.[42] But their enthusiasm was motivated by a concern that too many military recruits were overweight or obese, and a belief that better school nutrition can contribute to a healthier U.S. military.

Groups who want to help should be able to find a number of ways to do so. Foundations might sponsor the compilation, evaluation and dissemination of cafeteria best practices. Community groups might identify equipment or design changes that would improve meal quality and atmosphere, but aren't currently in school budgets, and organize community-based efforts to supply what's needed. Perhaps major employers in a locality would offer nutrition partnerships between their employees and their children in local schools, with parents and students matching each

other's healthy-eating habits. Or maybe corporations and foundations with national scope could identify, publicize and reward the very best school nutrition programs, providing both examples and incentives for improvement nationwide.

Whatever form this involvement might take, it would begin with a recognition of how school nutrition can help students attain a better future; an acknowledgment that school nutrition is not just a school issue but resonates within a wider community; and a commitment to back up the schools in their difficult task, which means real resources, effort and time.

Thought Starters:

- What are some of the ways that businesses, foundations, community groups and others can get involved with school nutrition?
- How can these ideas best be evaluated for the value they add, relevance to students and realism?
- What research, data or success stories are needed to make the case?

Can Schools Increase Their Efficiency in Purchasing Through Cooperation?

In 2009/10, schools spent $6.9 billion to purchase foods and beverages commercially. They also received $1.6 billion in donated commodities from USDA Foods.[24] The current school nutrition regulations have caused some schools to focus even more on their costs of acquiring foods, since many schools felt that some aspects of the regulations (e.g., additional requirements to offer fruits and vegetables as well as whole grains) raised their costs by a greater amount than the additional 6 cents per meal made available in conjunction with the new rules.[43]

Some schools, districts or municipalities join together, through purchasing cooperatives or similar structures, to buy at least some of their foods and beverages collectively. This helps streamline specification and requirements for supplier to meet more efficiently and allows districts to increase their volume which typically reduces cost. According to the School Nutrition Association's survey-based report, The State of School Nutrition 2016, a majority of responding schools – 65.8 percent already belong to a purchasing cooperative. Some schools belong to a multi-district cooperative for commodity purchases only; others also buy other items cooperatively. Some cooperatives are managed by a private company rather than a lead school district, and a Group Purchasing Organization is also cited by a significant number of schools.[44]

The SNA survey results may not necessarily be projectable nationwide to all school districts, so the actual portion of districts using these various tools could be more or less than the reported two-thirds. But if that number were reasonably close to the actual percentage, that would still mean one-third of all schools nationwide could potentially realize new benefits and savings by joining with others.

Photo Courtesy of the Urban School Food Alliance

The goal of joint buying aims to achieve a lower purchase price because of the greater volume involved. Both vendors and schools may achieve administrative savings because there are fewer individual contracts, and there is one set of product specifications rather than several potentially conflicting specifications.

It seems likely that there are additional opportunities for school nutrition programs to benefit from joint efforts, which may go well beyond joint purchasing. Successful district programs may be able to mentor other districts and help them develop the best specifications and ordering procedures for their own needs. Dialogue with vendors might identify products where common specifications could increase efficiency even if school districts did not necessarily order jointly. Or perhaps schools would benefit from the advice of world-class restaurant chains or consumer packaged goods (CPG) companies who would give advice on best procurement practices. These profit-making entities have learned much about how to attract and please customers.

Thought Starters:

- Many schools already purchase cooperatively, but would there be benefits if more schools did so?
- Are there additional efficiencies that could be achieved even by schools that already belong to purchasing cooperatives or similar entities?
- Are there unique opportunities or challenges for very small or very large school districts in the field of joint purchasing?
- Beyond procurement, in what ways could schools work together to provide excellent food in the most affordable way?

How Can Schools Make the Best Use of Logistics?

A school nutrition program is a substantially more complex proposition than outside observers probably think. The school nutrition operator must take delivery of food products on a frequent, often daily, basis. She or he must be confident that the food – which is often refrigerated or frozen – arrived in safe condition and was safely and quickly transferred to on-site, temperature-appropriate storage. The staff must organize purchases and deliveries to optimize the use of on-site storage – it must always be adequate to store the amount of food on hand at a given time, but operators also want to avoid unused refrigerated space. The actual preparation and service of food, of course, also involves the need for intense and precise management, from organizing the cafeteria workforce to ensuring that food is held and served at the right temperature.

There are numerous other models in place on a large scale around the country that involve complications. Some districts have central kitchens that supply multiple campuses. Some school nutrition programs are operated by outside contractors and, others are self-operated. In some schools, most food is prepared on-site and some even “from scratch,” but in other schools a large majority of the food is pre-made and then heated before service.

The opportunity to enhance students' school meal experience arises when all of the many logistical arrangements behind a school nutrition program can be organized to either improve meal quality, enhance operating efficiency, or both. Sometimes this may involve difficult decisions. For example, adding more refrigerated storage is seldom an automatic or easy decision, but it may provide benefits in the form of fewer daily deliveries. In turn, that may mean lower transportation costs, fewer greenhouse gas emissions, and may also mean that cafeteria workers spend less time overseeing arrivals.

Interest is growing in more scratch cooking, and while this brings its own logistical and resource challenges, the result may be a better food experience. (Note: Scratch cooking may be one way to reduce sodium content in order to meet new regulatory standards, for example.)

Thought Starters:

- What are major logistical factors where schools may have some scope to enhance efficiency?
- What results could be expected from these efficiency gains – in terms of food quality, nutrition, meal prices, etc.?
- How might schools learn from the experience of private companies, whether in the food sector or not, and use these lessons to enhance their operations?

Food and Operations Opportunities

What Role Can Students Play in Creating a Great School Meal Experience?

Many of us, regardless of age, may be more invested in an activity, a product or a value if we have played some role in designing it or making decisions about it. Fuel Up to Play 60 (FUTP 60) is an in-school nutrition and physical activity program launched by National Football League (NFL) and National Dairy Council (NDC) in collaboration with USDA. Fuel Up to Play 60 is designed to engage and empower youth to take action for their own health by implementing sustainable, positive changes for themselves and their schools. The program encourages youth to consume nutrient-rich foods (e.g., low-fat and fat-free dairy, fruits, vegetables, whole grains, and lean meats) and achieve at least 60 minutes of physical activity every day.[45]

Whether through FUTP 60 or efforts of their own, school nutrition programs can benefit from student involvement. Indeed, many already do, at least to some extent: *The State of School Nutrition 2016* reports that 72.3 percent of responding schools already use student taste testing or product sampling in their menu design.[44]

Many young people, especially in the upper grades, are intensely interested in where their food comes from, how it is produced and how their own diet choices affect the planet. Whether they are interested in these issues or not, all students know what they like and don't like. This means that school nutrition operators have the ability to engage students on a variety of levels to improve their experience with school meals. They want to know why the food being served has changed, so school nutrition staff need to keep students informed.

Youth often have strong opinions – both positive and negative – about the food itself, but they may bring insights into other issues as well. Is the lunch period too short, so they feel rushed and don't finish as much of their meal as they might with more time? Do they know where their food comes from or what ingredients are in their food? Do the colors, temperature, lighting, table

configuration and seating make their meal experience better or worse? What additional food options would make them more likely to participate in school meals?

Students can play a role not just at the local level but beyond. For example, since the launch of FUTP 60 more than 56,000 youth have achieved Student Ambassadors status around the country and a select group of about 200 of them are brought together at an annual summit to incent and reward their ongoing contributions to the program. During the 2016 event, middle-schoolers participated in a persuasive speaking contest with a school meal theme. The three winners traveled to Washington, D.C., where they had a chance to meet with the top officials of USDA's Food and Nutrition Service (FNS) – the group responsible for school meal regulations – and share their perspectives directly with them.

Thought Starters:

- What parameters of the school meal experience would most benefit from student input, involvement or insight? Food selection? Cafeteria layout? Communication? Others?
- How can schools recognize older students' growing interest in food issues – from sustainability to social justice – and leverage those concerns to promote good nutrition and excellent meals?
- How might youth play a role in encouraging outside groups – businesses, community groups, etc. – to take a more active interest in school meals and help schools through resources, advice, etc.?
- How can schools best appeal to and communicate with the different age groups of elementary vs. secondary level students?

Can Schools Work with Vendors to Improve Quality and Encourage Innovation?

Despite growing interest in scratch cooking, a large portion of school food is still supplied by outside vendors with at least some degree of preparation. Entrees, side dishes and desserts may all arrive at the school with a substantial degree of prior assembly, processing, cooking or a combination of these things.

This means that vendors play a crucial role in how students experience school meals. Not only does the vendor determine how the food will taste, but the vendor's formulation decisions affect the nutritional quality of what students eat.

Food companies that serve the school market already innovate, regularly introduce new products and maintain contact with schools. The question is whether schools and vendors alike can take their relationship to a higher level, so that innovation leads to excellence, quality is maximized, and future consumers are created to support the American food suppliers.

Thought Starters:

- What are some ways schools and vendors could cooperate more closely to develop foods that are fresh, nutritious and delicious? Would this involve third-party forums that take conversations away from specific contract terms and toward a broader discussion of what appeals to students, what vendors need from schools or what kinds of food experiences will drive more traffic to the cafeteria?
- Are there improvements to procurement processes that would encourage more innovation and higher quality, while still ensuring competition and compliance with all legal requirements?

Can Schools Find Additional Ways to Include and Promote Local and Regional Foods?

The enthusiasm for "local" foods is not a stranger to school nutrition programs. Farm-to-school programs now exist in more than 42,000 schools, according to USDA.[38] Schools must address issues like seasonal availability, adequate supplies and cost, and many are successfully doing so. In the 2016 SNA survey, 49.9 percent of responding schools reported farm-to-school programs, compared with only 32 percent in 2011.[44]

In some ways, the ultimate local food is the produce from a school garden – and 33.2 percent of SNA-responding schools have one in place, meaning that two-thirds do not, so the opportunity for growth is large.[44] Gardens are also another way to involve students in their school meals.

Inter-school cooperation may hold promise here too. Perhaps one school has no space for a garden, but could arrange to obtain produce from a neighboring school that does. Or maybe schools can find creative ways to link their Summer Feeding Program to nearby farmers' markets, which are most active in mid- to late-summer in many parts of the country.

There may even be new ways of thinking about what is local and regional. Probably most people think first of fruits and vegetables, but milk – offered with each school meal – is often one of the most "nearby" products on the plate. Typically, milk will have traveled fewer miles to arrive at the school than many other products the school offers, aside from the school garden, of course.[46]

Thought Starters:

- What community connections need to be made so that schools can take full advantage of the popularity of local and regional foods?
- Who is best positioned to take leadership roles? Local farm organizations? Schools? Others?

How Can School Cafeterias Become Welcoming, Appetizing Spaces?

Any restaurant operator knows that while food has to be top-quality, the dining atmosphere makes a large difference in diners' experience and perception. It is, of course, no different in an institutional setting like a school cafeteria. The cafeteria is not typically a white-tablecloth environment, but a pleasant, welcoming space can still enhance the diners' (i.e., students') experience. To the extent they have a more pleasant experience, they can become more frequent customers and may be better nourished when nutrient-rich foods are made available.

Instead of assuming that a cafeteria is a fixed, unchangeable "built environment," perhaps it is possible to make changes within what is already there. Colors may matter. The configuration of the meal line – what students see first, second and third as they proceed through – may make a difference. The way seating is laid out, the lighting in the room – all of these factors and more can be adjusted in positive ways.

Not only can the overall cafeteria environment create a supportive setting, but school nutrition staff or personnel can take specific actions that overtly or covertly encourage nutritious choices. Many school nutrition programs have embraced the psychological tools of "nudging" – subtle changes in the placement of items or the order of selection that encourage students to make positive food decisions. Work by researchers at Cornell University has educated school nutrition managers about the potential of modest, almost unseen adjustments to encourage nutritious choices. Placing fruit in bowls, coming up with appealing names for items containing familiar foods and other subtle changes have proven effective in this research.[47]

Thought Starters:

- What aspects of the cafeteria are set in place and which ones are changeable?
- What would an ideal cafeteria environment look like? What characteristics would it have, and how would each of these contribute to a better meal experience for students?
- What are low-cost alterations that might make a big difference in the student dining environment and experience?
- How might school nutrition staff interact with students to build relationships and support for what they are doing?
- How can the supervision of the dining room be improved?

Can Other Feeding Institutions Provide Valuable Lessons for Schools?

Schools are not unique in their efforts to provide food to large numbers of people during a short period of time, and make that food both nutritious and delicious. Other settings in which something similar must be delivered include the armed forces; universities; hospitals; corporate cafeterias; quick-serve restaurants and others.

What might these highly diverse settings have to teach schools? Each has something in common with schools. For example, the armed forces must provide meals that are nutritionally balanced while meeting the needs of a population who must remain physically fit and perform at an extremely high level of physical endurance. School cafeterias, while serving a wide range of students, must also provide an appropriate diet to a sizeable contingent of student athletes.

Hospitals serve a population that at first seems quite dissimilar to a student body, since by definition much of the hospital population is sick while most of the student population is presumed to be in excellent health. Yet there may be areas of commonality: A substantial portion of both populations may be pre-disposed to view the available food negatively. How can that be overcome?

Photo Courtesy of U.S. Department of Agriculture

Quick-serve restaurants obviously differ from school cafeterias in many ways, not least in operating as for-profit companies. However, many quick-serve foods are highly popular with students, and indeed some retail entities such as pizza chains provide entrees to a large number of schools. Are there lessons to be learned in terms of product consistency, interaction with service personnel, food preparation logistics or other factors?

Thought Starters:

- Assuming other mass-feeding institutions have something to offer schools, how can the right people be brought together to make that happen?
- What specific lessons might schools learn from the military, from hospitals, from quick-serve restaurants or from other institutions?

How Can Schools Leverage Technology and Digital Solutions to Increase Meal Participation?

The current and future generations participating in school meals are more ethnically diverse and more tech savvy than their predecessors. Today, those in this generation (i.e., Gen Z) prefer a mobile-first experience and are leaning towards the use of more personal-focused social platforms that allow for interaction, such as Snapchat and YouTube.[48]

Understanding how this demographic searches for, and shares information among their peers may provide an opportunity for schools to leverage technology and social media channels in order to make students – and parents – aware of school meal options and in-turn increase participation. For example a dashboard of school meal participation could be created and shared.

It might be something as simple as Snapchatting the daily menu, or creating a series of YouTube videos that showcase where certain meal components come from (if local), and how each meal is prepared; and who is responsible for preparing it - further building the personal connections for students about their meals and how they arrive on the lunch line.

This opportunity is one that is primed for student involvement. Leveraging students to participate in the thinking and development of plans that leverage technology and digital solutions will be key to adoption.

In addition to looking inside the school building, it will be critical to look at how outside institutions can support the development of new innovative solutions in the school meal system. Bringing in new imaginative thinking from technology and social media partners has the potential to transform not only how food is served, but also students' relationship and ultimately consumption of the school meal.

Thought Starters:

- Which social media channels would be best suited to promote school meals? How?
- What kind of social media content would resonate with students and encourage consumption of nutrient-rich foods and discourage foods to limit?
- What might motivate tech and digital/social media companies to take a much stronger interest in school nutrition? What kinds of projects could they undertake if they chose to do so?

A Case Study: School Milk as a Focus for Food and Operations Opportunities

As a way to think through how the preceding ideas might work in practice, consider the case of school milk. It is the No. 1 dietary source of nine essential nutrients in the diets of children and adolescents.[49] Longstanding regulations require milk be offered with each school meal. However, falling ADP and other factors suggest that milk consumption in schools may have been falling as have sales of fluid milk in the retail marketplace.[50]

Each of the ideas we have considered in this section is potentially applicable to the challenge of increasing school milk consumption.

Student Involvement: This might begin with something as simple as whether youth like the fat-free flavored milk that has been required since 2012-13. (Note: Before that time, it was common for schools to serve low-fat flavored milk, also known as 1 percent.)[51]

Vendor Innovation and Quality: Milk processors could take advantage of what is already known about youths' milk preferences. Previous work has shown students like additional flavors such as strawberry; colorful, cool packaging; strict temperature control so the milk is always cold and merchandising in glass-front coolers that have more of a retail than institutional look.[52]

Local and Regional: As noted earlier, milk may travel shorter distances than other foods in the school. Highlighting local or nearby fluid milk providers and bringing dairy farmers into schools to explain how they care for their cows may help educate and encourage students to drink more milk.

Cafeteria Re-Design: One aspect of improving the meal environment might be to display milk in glass-front coolers. A "grab-and-go" display can also be effective.

Other Channels: In the past decade, a number of quick-serve restaurant chains have introduced flavored milk in plastic re-sealable containers to their kids' meal offerings. Their success with milk may be informative for schools as they look for ways to make milk cool and popular.

Social Media: Many media channels could be used to promote milk. The popular hashtag "#FunFarmFactsFriday" could help schools make a connection between drinking milk and supporting family farms.

Thought Starters:

- What are other ways that school milk could be supported through each of the categories above?
- How might similar techniques help schools promote fruits, vegetables, whole grains or protein foods while reducing waste?
- How can milk be made appealing to teens? Is 8 oz. enough fluid for older students?

Management Opportunities

How Can Regulations Best Promote Excellence in School Food Quality and Encourage Maximum Participation in School Feeding Programs?

The regulations that govern school menus, a la carte offerings and vending sales have been disseminated after public comment, and give effect to laws passed by Congress and signed by the President. The present exercise is not about changing these regulations or assessing their merits, but about how schools can best maximize the value provided by their nutrition programs in the context of the regulations.

FNS officials who oversee the school meal programs have a mission-based interest in increasing participation rates and optimizing school meal operations. FNS has adjusted certain provisions of its regulations (e.g., enforcement of weekly limits on protein and grains) in response to the actual experience of school districts.[53]

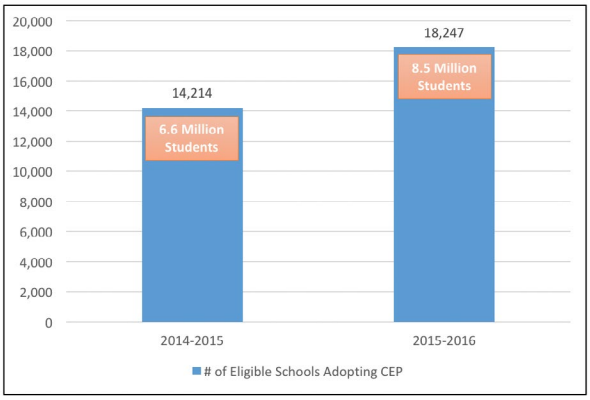
If increasing participation rates – getting a greater portion of the student body to consume breakfast and lunch – is a priority, one new regulation that appears to encourage that result is the Community Eligibility Provision (CEP). CEP allows schools with high levels of free and reduced-price meals to provide free meals throughout the school. According to a recently-updated report, more than 8.5 million students are now enrolled in CEP schools.[54] (Figure 5) Even as paid lunch participation has fallen on a national basis, free participation has risen, likely reflecting the impact of the CEP.[36]

Free meals throughout low-income districts relieve cost burdens on families who may be on the edge of reduced-price and free eligibility but are still struggling. In addition, the stigma sometimes associated with consuming school meals in the cafeteria "that's where the poor students eat" is lessened when everyone is eligible. And CEP significantly reduces administrative burdens on school districts.[54]

Thought Starters:

- What opportunities exist for schools to work within the regulations to improve the school meal experience?
- Should innovative programs like CEP be the focus of outside groups (i.e., should charitable foundations work to encourage greater adoption of CEP among eligible school districts)?

Figure 5 : Community Eligibility Provision Take-Up in Eligible Schools



Source: Segal B et al. Community Eligibility Adoption Rises for the 2015-2016 School Year, Increasing Access to School Meals. Accessed February 16, 2017.

Are There Opportunities to Free Up School Administrative Resources?

In school nutrition programs, federal funds collected from taxpayers nationwide are disbursed to individual, non-federal institutions at the local level. These funds facilitate a system in which some students are subsidized more than others because of income level. These two considerations explain why recordkeeping, documentation and arms-length audits are part of the nutrition assistance programs, whose primary focus nevertheless remains providing healthy meals.

At the same time, these systems do have an impact on local institutions (i.e., schools and specifically school nutrition programs) through the time and resources required to comply with them. As noted above, one benefit of CEP is the degree to which it reduces required paperwork.

Are there ways to think creatively about reducing the burden on schools without sacrificing program integrity? For example, do schools have updated information technology systems? Would newer systems permit the same work to be done in less time and in a less complex fashion? If this is the case, where will schools get the resources to upgrade?

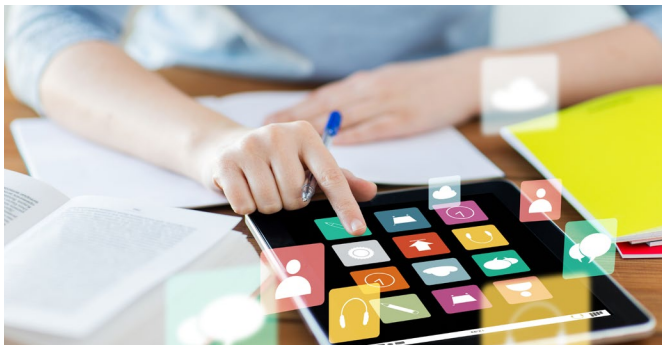
Thought Starters:

- What types of assistance (e.g., mentoring, best practices, model reporting methodologies, etc.) might help schools deal with administrative tasks and reduce the amount of time and resources devoted to them, freeing up resources to focus on meal quality, nutrition and taste?

Can Schools Realize Value and Savings by Better Use of Information Technology?

The preceding section suggested that up-to-date information technology (IT) might ameliorate the burden of necessary regulatory reporting and compliance work. However, there may be opportunities for schools to use IT as a way to achieve much more.

IT can streamline something as simple as the physical format in which bids must be submitted as well as the process of evaluating those bids. IT can also be used – and is – in the design of frequently-changing menus in order to bring variety and great tasting food to students while also meeting nutrition requirements.



Because today's technology facilitates an unprecedented array of communications throughout every conceivable network and relationship, there are surely also opportunities for school nutrition programs to communicate more effectively with their customers, the students. What about point-of-sale satisfaction surveys? Could technology measure plate waste automatically to see which menu items were consumed and which were not?

Thought Starters:

- Which opportunities for enhancing information technology hold the most promise for actually leading to an improved meal experience for more students?
- What resources might be available, in the community or among groups with national scope, to help schools acquire up-to-date information technology and train them in its most effective uses?
- What lessons can schools learn from how students use technology? How can schools translate those lessons into practical steps that encourage greater meal participation?

Social Opportunities

How Can Schools Best Utilize Existing Public and Private Resources to Promote Nutrition?

The nation's focus on obesity and related chronic conditions has had a number of salutary effects. One is the development of a wide range of programs in both the public and private sectors that aim to encourage improved nutrition and physical activity among students. These programs operate in a variety of ways.

Fuel Up to Play 60 has been mentioned already. This in-school nutrition and physical activity program was launched by the NFL and NDC in collaboration with USDA. It empowers students to lead activities that support nutrient-rich eating choices and encourage physical activity. Since inception more than 73,000 schools have enrolled in the program.[55]

Some efforts have focused on the development of standards or best practices. A prominent example is the Alliance for a Healthier Generation's program, which has promulgated nutrition standards for foods and beverages in schools.[56] Somewhat analogous is USDA's HealthierUS Schools Challenge; in this case schools are given a set of metrics and expectations, with recognition when they meet them.[57]

Grants that are oriented toward better nutrition are also a powerful tool to promote positive change. For example, since 2009, USDA has made more than $215 million in grants to schools to purchase kitchen equipment. Because many schools have limited capital equipment budgets, these grants may have not only facilitated purchases that otherwise would likely not have been made, but also encouraged more on-site food preparation allowing schools to serve healthier meals that meet the updated meal patterns. (Note: There are non-federal grant sources as well. For example, in 2016 NDC provided $5 million in equipment grants, and NDC and USDA worked together to help facilitate school applications for both their grant programs.)[58]

Thought Starters:

- Which are the most effective public and private programs that channel resources or ideas to schools?
- Are there examples of private philanthropy or federal or state programs that represent undiscovered opportunities for schools? How might schools be assisted to learn about and take advantage of these programs?

Can Schools Create Teachable Moments Through Local Purchasing?

The trend toward local and regional preferences (i.e., farm-to-school programs) was noted earlier. However, this trend has implications that go well beyond procurement and menus. Farm to School programs have promoted a better understanding of the ingredients origin and their benefits.

Local sourcing creates opportunities to better integrate the school nutrition program into the total school community as well as extending beyond the school to the town or city community. Depending on grade levels and the school's educational programming, "buying local" potentially creates teachable moments that can be integrated into courses. Here are possible ideas:

- Physical science through the education about greenhouse gas impacts of buying food that travels shorter distances
- Chemistry through education on the carbon cycle associated with crop and livestock production from farm to market to table, including food waste contributions
- Social studies through analysis of trends in farm size, crop specialization and the development of marketing strategies such as organic production
- Political science through a discussion of conflicting points of view in different agricultural production models

Fundamentally, local and regional sourcing suggests a conversation about nutrition and sustainability. Particularly at upper grade levels, there is an opportunity to discuss the many points of view and correct misinformation. The trade-offs between feeding billions of people and preserving small-scale production are not clear-cut or simple, and both contribute to nourishing people - schools can engage in these conversations at a variety of levels with the right support from agriculture, environment and nutrition experts. Among the most valuable resources may be local farmers and ranchers who can talk with students about their lives, their multi-generational family businesses, and the science-based best practices they use to provide food for nourishment.

Thought Starters:

- Can schools use the current interest in sustainable food systems not only to encourage an educational dialogue but also to enhance the value of the school meal programs? How?
- What are the opportunities and challenges of integrating school food and broader food questions into the academic curriculum? How might this make a difference in student acceptance of school meals?
- How could a consideration of sustainable food systems lead students to regard school meals as both nutritious and sustainable? What if any changes might be necessary to help share the science-based facts as this science and information continues to emerge?

Can Schools "Ride the Wave" of Current Nutrition Topics of Interest?

Today's intense interest in food and where it comes from takes a variety of forms. Some of these include the popularity of television food channels and their celebrity chefs who star in the shows. There is also a greater interest in what individuals can do for the current and future natural environment (e.g., ways to reduce individual carbon footprints, make more responsible food choices, reduce food waste, etc.).

The school nutrition community has a mixed experience with celebrity chefs, but the broader question remains: If these elements of popular culture have a strong resonance with important elements of the population, are there ways they might benefit school nutrition programs?

Clearly, very few schools will be able to attract celebrity chefs. On the other hand, are there popular local restaurants with a buzz? Would the chefs at those restaurants take a turn in the school kitchen? Could their slightly modified recipes become a permanent part of the rotating school menu?

What about students showcasing their own recipes via a video contest, with the winners featured as entrees in the cafeteria? The idea is not to put every local school district on a nationally syndicated show, but to appropriate some of the cultural buzz and use it to enhance the school meal experience.

Again, the interest in climate change may create interesting options for schools. In general, school lunch meals have been associated with higher overall diet quality compared with eating lunch from home.[40] It is plausible that school meals may also involve less non-biodegradable packaging (trays, plates and silverware are washed, recycled or composted, but plastic sandwich bags and other retail packaging is usually headed for the landfill). Could schools showcase the cafeteria as a way that every student could reduce her or his carbon footprint?

Finally, there is growing interest in the topic of food waste among many people. Unfortunately, some cafeterias provide graphic evidence that significant portions of our food supply are wasted. This, too, could be a teachable moment – possibly one that will create motivation among students to change their behaviors to get involved in helping make changes for the school at large. Can schools provide messages about taking what you want and finishing what you take? Are there potentially countervailing messages about regulatory compliance as well as not encouraging over-eating? Do short lunch periods, often only 20 minutes, unintentionally lead to more food waste because students lack the time to eat?

Thought Starters:

- In today's media, entertainment and thought leader world, what are the major themes or channels that might have some relevance for the school nutrition environment?
- What are some ways that schools could take advantage of these themes or channels to encourage better nutritional intakes and socially responsible behaviors among students?
- How can students best engage in this process?

Moving Forward

The Nourish to Flourish Summit

Nourish to Flourish: Scaling Up Excellence in the School Meals Experience that's Vital to Fueling Every Child's Success will convene a "whole-system-in-the-room" action oriented summit around school meals. Dr. David Cooperrider will guide this National Appreciative Inquiry Summit that is not just an event but a catalyst for real action. The Urban School Food Alliance and National Dairy Council are bringing together a cross-section of stakeholders from the entire value chain with a vested interest in school meals. Participants will share leadership and take ownership for making the future of this strategic opportunity for school meals successful.

The background information and Thought Starter ideas have been provided to ensure summit attendees have the foundational knowledge on school meals to generate ideas to scale up excellence in the school meals experience. Outcomes from the summit will result in multiple projects that address the objectives of the summit:

- Invest in high quality American produced foods for students to thrive
- Increase opportunities to have high quality meals and meal experiences for students
- Develop a Culture where a positive school meals experience is valued for its vital contributions to (1) fueling learning, (2) feeding every child's success regardless of race or economic status, (3) nurturing a healthy and vital community experience in our schools
- Scale-up excellence across the country: to speed the spread of innovations in the school meals experience; ways to grow participation; ways to become more sustainable economically, ecologically, and socially; and in ways to tell the whole story of the wide spectrum of benefits

All parties together can create a win-win to help improve the health of kids, help ensure economic viability of our schools and help protect the environment.

Photo Courtesy of U.S. Department of Agriculture

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