

School Food Waste Reduction Toolkit

Background

Food production accounts for approximately 16% of the United States' energy use, nearly 50% of U.S. land use, and 67% of freshwater consumption, yet an astounding 40% of America's food supply is wasted every year (Canning, 2010; Nickerson, 2007; Maupin, 2014; Gunders, 2017). This total dollar loss of food waste is equivalent to \$161 billion each year (Buzby, 2014). Per capita, 240 pounds of food is wasted each year (Gustavsson, 2011). According to a National Resource Defense Council (NRDC) report, 60% of food that is wasted in the United States is wasted at the consumer level, with most of the food waste being seafood, fruits and vegetables. In 2015, the USDA and EPA created the first ever food waste reduction goal to reduce food waste by 50% by the year 2030. In 2017, New Jersey adopted similar legislation targeting schools as a leverage point to reduce food waste throughout the state due to their scale, and the potential for a significant amount of food to be saved from going to waste.

Program Description

Faculty from the Department of Family and Community Health Sciences (FCHS) at Rutgers Cooperative Extension developed a food waste reduction program that focuses on minimizing food waste in public schools. This effort has included pre- and post-programming food waste audits at school cafeterias, training for foodservice workers, education of students and teachers, and the creation of a toolkit to assist other schools in undertaking food waste reduction programs. The objective of the food waste reduction program was to minimize wasted school food through the education of foodservice workers, students, and teachers, about practices to minimize the environmental, nutritional, and economic impact of wasting food, as well as sustainable food waste disposal techniques. The primary audience for the intervention was school foodservice workers, as they manage what schoolchildren are eating and how that food is presented in the cafeteria. The secondary audiences were elementary school students

and teachers, as they are the ones making choices in the lunchroom and classroom each day. The program started with Paterson and New Brunswick schools, both audiences were in low-income schools with diverse students with mandated school lunch.

Methods/Results of Evaluation

A total of 225 cafeteria Paterson Public Schools food service staff and lunchroom monitors were trained by Rutgers Cooperative Extension. This program provided the food service workers and monitors with techniques aimed at improving fruit and vegetable consumption in students and reducing food waste. A total of 9140 student lunch trays were measured for food waste: 4637 for the pre-training and 4503 trays for the post-training. Of the food and beverages served during the 60 visits to schools, 2473 pounds were wasted before the training and 2123 were wasted after the training. Overall, 350 pounds of food were saved, which was a 14% reduction in food waste due to this intervention. A majority of the food saved was fruits (28%) and vegetables (14%).

New Brunswick Public Schools (NBPS) have also become a model of food waste reduction and recovery. In the fall of 2018, faculty from Rutgers Cooperative Extension, Department of Family and Community Health Sciences (FCHS) performed an assessment of cafeteria food waste in five elementary schools. After the initial assessment, over 75 food service staff was trained on various food waste reduction strategies. Between January and May 2019, three elementary schools piloted lunchtime share tables. Any food remaining on the share tables after the school lunch periods ended was donated to Elijah's Promise a local soup kitchen, which then redistributed it back into the community. As a result of this pilot program, 3871 pounds of food were recovered from NBPS and redistributed to the community.

Impact

Approximately 12 pounds of food were saved per school per day and a total of 90,720 pounds of food waste saved for the Paterson district for the year. The estimated food cost savings is \$76,452 per year. Using agricultural production data, water and energy savings could be calculated. Water usage data for

production per serving or per pound of milk, wheat, beef, apples, spinach, etc. was used for the calculations. 42,000 gallons of water were saved due to the intervention. This would result in more than 10.5 million gallons of water saved by the Paterson school district over the 180-day school year. Energy usage data for production per serving or per pound of milk, wheat, beef, apples, spinach, etc. was used for the calculations. An estimated 33 kWh of energy were conserved due to the intervention. More than 250,000 kWh would be saved by the Paterson Public School district annually.

New Brunswick Public Schools (NBPS) have also become a model of food waste reduction and recovery. In the fall of 2018, the Food Waste Team performed an assessment of cafeteria food waste in five elementary schools. After the initial assessment, over 75 food service staff were trained on various food waste reduction strategies. Between January and May 2019, three elementary schools piloted lunchtime share tables. Any food remaining on the share tables after the school lunch periods ended was donated to Elijah's Promise a local soup kitchen, which then redistributed it back into the community. As a result of this pilot program, 3871 pounds of food were recovered from NBPS and redistributed to the community. Data on lunchroom food waste are still being analyzed. However, NBPS administration were so pleased with the preliminary data from this project that they have committed to implementing several food waste reduction efforts on a more permanent basis once schools re-open for in-person instruction; for example, share tables in many of the district's 15 cafeterias.

School Food Waste Reduction Toolkit

The school food waste reduction program was so successful that it garnered interest from school districts throughout New Jersey, leading the FCHS faculty who developed the program to conceptualize, plan and host a state-wide School Food Waste Reduction Summit in July 2019. This summit was created for any school stakeholders interested in reducing food waste, and attendees included teachers, food service directors (those employed by both school districts and private management companies), board

of education members, students, parents, and others. The summit's agenda included: an introduction to the issue of food waste, presented by FCHS faculty; an expert panel discussion on food waste; presentation of the data from the food waste reduction intervention in two school districts; and a design-a-thon in which small break-out groups created food waste reduction programs that could be implemented in their own schools. The two FCHS faculty created the School Food Waste Reduction Toolkit as a resource to distribute at the Summit, for use during the Design-A-Thon and to bring back to the schools to use as a reference in creating food waste reduction initiatives. The Toolkit includes: a background on food waste; an explanation of the relationship between food waste and food insecurity; information on the two a summaries of the aforementioned school district case studies; and several strategies that school districts can employ to reduce food waste in their cafeterias. The Toolkit was distributed to all 72 attendees of the School Food Waste Reduction Summit prior to the Design-A-Thon. Each breakout group used the Toolkit as a reference in designing their own food waste reduction interventions; the Toolkits were also sent home with each attendee to share with others in their school districts. Attendee feedback on the Summit was overwhelmingly positive, with ratings of the program content and speakers at 4.63 out of 5. Many indicated that they would take this information to their schools and create plans to reduce food waste. After the Summit, at least one participating high school's honors society took this project on as their community service project and adapted changes recommended during the summit.

The School Food Waste Reduction Toolkit is currently housed on a [webpage](#) of Rutgers Cooperative Extension's Department of Family and Community Health Sciences that is dedicated to school food waste reduction. It is free and available to anyone interested in downloading it. Although it refers to school food waste reduction efforts completed in New Jersey, the Toolkit is applicable to schools in any state that wish to implement food waste reduction programs.

To date, the Toolkit has been downloaded from the website 681 times, for a total reach of at least 800 individuals, including in-person hand-outs given at the Summit and other meetings and events. The School Food Waste Reduction Toolkit was 100% conceptualized, researched and written by the applicants, who are Rutgers Cooperative Extension (RCE) Family and Community Health Sciences educators. The School Food Waste Reduction Summit was hosted at Rutgers, where RCE was explained to the attendees and given recognition throughout the program. The materials from the Summit are housed on RCE's website and contain RCE and FCHS logos. The information included in the Toolkit has been carefully researched and references are available. Sources include USDA, EPA, and Feeding America. Our hope is that the Toolkit, along with other resources available on the RCE FCHS School Food Waste Reduction webpage, will continue to serve as a source of information and support for anyone who is interested in working on the timely and important issue of reducing food waste.

References

- Buzby, J., Wells, H., Hyman, J. The estimated amount, value, and calories of postharvest food losses at the retail and consumer levels in the United States, United States Department of Agriculture (USDA). Economic Research Service Economic Information Bulletin No. EIB-121 (2014). https://www.ers.usda.gov/webdocs/publications/43833/43680_eib121.pdf
- Canning, P., Charles, A., Huang, S., Polenske, K., and Waters, A. Energy use in the U.S. food system, USDA Economic Research Service, ERR-94. (2010). https://www.ers.usda.gov/webdocs/publications/46375/8144_err94_1_.pdf?v=0
- Gunders, D., and Bloom J. Wasted: How America is losing up to 40 percent of its food from farm to fork to landfill. NRDC R:17-05-A (2017). <https://www.nrdc.org/sites/default/files/wasted-2017-report.pdf>
- Gustavsson, J., Cederberg, C., and Sonesson, U. Global food losses and food waste, United Nations Food and Agriculture Organization (UN FAO), (2011). <http://www.fao.org/3/a-i2697e.pdf>
- Maupin, M., Kenny, J., Hutson, S., Lovelace, J., Barber, N., and Linsey, K. Estimated use of water in the United States in 2010, U.S. Geological Survey Circular 1405 (2014). <https://pubs.usgs.gov/circ/1405/>
- Nickerson, C., Ebel, R., Borchers, A., and Carriazo, F. Major uses of land in the United States, USDA Economic Research Service, EIB-89 (2007). https://www.ers.usda.gov/webdocs/publications/44625/11159_eib89_2_.pdf?v=0

School Food Waste Reduction Toolkit



A guide to reducing food waste in New Jersey's K-12 Schools

Sara Elnakib, RD,MPH,
Department of Family &
Community Health Sciences,
Rutgers University

Jennifer Shukaitis, MPH,
Department of Family &
Community Health Sciences,
Rutgers University

Jason Flatt, Elijah's Promise



Acknowledgements

*With Gratitude to the School Food Waste
Reduction Summit Planning Committee:*

Jennifer Apostol, Middlesex County Food
Organization and Outreach Distribution
Services

Michelle Wilson, Elijah's Promise

Johnny Malpica, The Collaborative Center
for Community-Based Research & Service,
Rutgers University

What's inside:

Introduction.....	3
Background on Food Insecurity	3
Background on Food Waste	3
The Link between Food Waste and Food Insecurity	3
Framework for Reducing Food Waste: Food Recovery Hierarchy	4
Case Studies of Food Waste:	4
Paterson, NJ.....	4
New Brunswick, NJ.....	5
What you can do for your school	5
Share Tables	5
In-School Redistribution	6
Out-of-School Redistribution	7
School Policy Changes.....	7
Lunch Time Matters	7
Offer versus Serve	7
Smarter Lunchroom Movement.....	7
Stakeholder Involvement	8
Connect with Students.....	8
Resources	9
List of Appendices	10



Notes

Introduction

Background on Food Insecurity

The United States Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life. It is important to note that although hunger and food insecurity are distinct concepts, they are related. Hunger is a temporary physical sensation, whereas food insecurity is the lack of access to safe and consistent food sources.¹

An estimated 1 in 8 Americans are food insecure, a figure that includes approximately 12 million children, and 40 million people overall.²

Those who are food insecure tend to struggle with knowing when and where their next meal will come from. Chances are, you know someone who has experienced food insecurity at some point in their life.

Background on Food Waste

According to the Food and Agricultural Organization (FAO), approximately one-third of all food produced globally for human consumption is lost or wasted. That equates to approximately 1.3 billion tons of food per year. In the United States we throw out about 40% of the food we grow.³ Food is lost and wasted at every step of the food supply chain, from growing the food at the farm to throwing away food in our refrigerators. However, the majority (about 31%) of our food waste happens at the retail and consumer level, equating to about 133 billion pounds and \$161 billion annually.³ When it comes to schools, some estimates say that less than 85% of each school meal is consumed.⁴

School food waste mainly comes from two sources: kitchen preparation waste, and student waste. Student waste occurs when

students take more than they need or are required to take items that they do not want. This toolkit will focus on student food waste.

The Link between Food Waste and Food Insecurity

Food insecurity in the United States is not a matter of not having enough food, but of an inequitable distribution of what we do have. The challenge lies in creating sustainable and equitable systems for redistributing uneaten food to people who need it.

Many opportunities exist for communities to reduce waste and address food security. That is why, in 2015, the USDA and United States Environmental Protection Agency (EPA) and partnered to create the first-ever Food Waste Challenge for the US to reduce food waste by 50% by the year 2030. Noting the significant impact that reducing food waste in schools can have, they created specific recommendations for schools.⁵ Please see USDA Infographic in Appendix A for more information.

Elementary and high schools are ideal settings for reducing food waste. Food waste is expected in school settings due to individual food preferences and differing caloric needs of students. By establishing best management practices for reducing, recovering and recycling food waste, schools can be instrumental venues for meeting the food waste goals set by EPA and USDA. Reducing waste in schools may be a first step to creating more equitable food systems.



¹ <https://www.feedingamerica.org/hunger-in-america/food-insecurity>

² <https://www.feedingamerica.org/hunger-in-america/facts>

³ <https://www.nrdc.org/sites/default/files/wasted-2017-report.pdf>

⁴ <https://www.ncbi.nlm.nih.gov/pubmed/23332326>

⁵ <https://www.usda.gov/foodlossandwaste>

Framework for Reducing Food Waste: Food Recovery Hierarchy

The EPA has developed a hierarchy for food waste reduction. The most efficient method involves reducing food waste at the source by producing less food and using what is made through better process management. If unwanted food is produced, the next priority is to feed hungry people.

This toolkit focuses on ways that communities can reduce food waste in schools by feeding hungry people, which is the second tier of the EPA hierarchy.⁶



Case Studies of Food Waste

Paterson, NJ

Through a partnership with Paterson Public Schools (PPS), Rutgers Cooperative Extension has provided training and technical assistance for the food service staff since 2015. Through this partnership, the issue of food waste in the schools arose. Paterson Public Schools was one of the first schools in New Jersey to do a full food waste audit. In 2017, this food waste reduction program sought to address many of the gaps in the current research on food waste intervention programs in schools. The Paterson Public School District has a total of 42 schools, 30 of which are elementary/middle schools that prepare their meals on-site. Of the 30 eligible schools, 15 were randomly selected to participate in the study. A total of 225 cafeteria food service staff and lunchroom monitors were trained by Rutgers Cooperative Extension, Department of Family and Community Health Sciences (FCHS) to implement a food waste

reduction plan that is based on the Smarter Lunchroom Movement program. This program provided the food service workers and monitors with techniques aimed at improving fruit and vegetable consumption in students and reducing food waste.

A total of 9140 trays were measured for food waste: 4637 for the pre-training and 4503 trays for the post-training. Of the food and beverages served during the 60 visits to schools, 2473 pounds were wasted before the training and 2123 were wasted after the training. Overall, 350 pounds of food were saved, which was a 14% reduction in food waste due to this intervention. A majority of the food saved was fruits (28%) and vegetables (14%). That equates to approximately 12 pounds of waste saved per school per day and a total of 90,720 pounds of food waste saved for the whole district for the year. The estimated savings of food cost for the 90,720 pounds of food is \$76,452. Overall, this intervention exemplified the impact of training school food service staff in food waste reduction techniques.⁷

⁶ <https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy>

⁷ <https://njersy.co/2v332Jm>

New Brunswick, NJ

New Brunswick Public Schools (NBPS) have also become a model of food waste reduction and recovery. In the fall of 2018, faculty from Rutgers Cooperative Extension, Department of Family and Community Health Sciences (FCHS) performed an assessment of cafeteria food waste in five elementary schools. After the initial assessment, the food service staff was trained on various food waste reduction strategies.

Between January and May 2019, three elementary schools piloted lunchtime share tables. Any food remaining on the share tables after the school lunch periods ended was

donated to a local soup kitchen, which then redistributed it back into the community.

As a result of this pilot program, 3871 pounds of food were recovered from NBPS and redistributed to the community.

Other food waste reduction techniques that NBPS may implement next school year include using food from share tables for after school programs, and a take-home backpack program. The goal is to give as much of the food back to the students as possible before donating the rest to other agencies.

What you can do for your school

The following sections provide information on various strategies that can help your school to reduce food waste and address food insecurity.

Share Tables

Share tables are a USDA-supported technique that schools around the country use to reduce food waste and food insecurity.⁸ A share table is a place where students can place unopened food and

that they choose not to consume. This provides an opportunity for other students to take additional helpings of food or beverages from the share table at no cost. Alternatively, items from share tables that are not taken by students may be donated to local food pantries or soup kitchens. See Appendix B for USDA guidelines on share tables.

Creating a share table is simple and no- or low-cost.



⁸ <https://www.fns.usda.gov/use-share-tables-child-nutrition-programs>

Photo credit: Jason Flatt

A designated table with a few boxes can be set up in the cafeteria. Clear signs indicating that it is the share table, as well as reminding the students what can and cannot go there should be posted above the table and on the boxes. Any unopened food can be kept out over the course of each lunch period. Students can leave or take items on the share table as they please. Milk and other perishable items are permitted to sit on the share table as long as they do not drop in temperature. For guidance on the food and drinks that may be included in a share table, as well as how to safely keep them on a share table, please see the USDA share table guidelines as well as a sample HACCP food safety plan in the Appendix C.

Students should be trained on how a share table works, and why it is important to make sure they do not open or throw away unwanted food items but place them on the share table instead. Staff should also be trained on how the share table works and what their responsibility is during lunch to ensure it is running properly. A school staff person should be assigned to manage the share table during each lunch period.

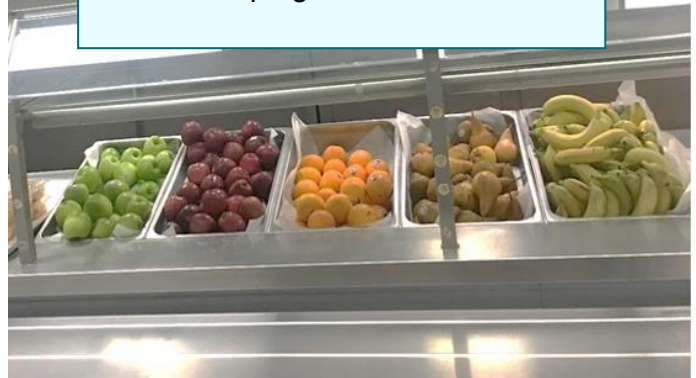
Prior to starting a share table, meet with stakeholders to determine what will happen to the food at the end of the lunch period. Options include: students taking any non-perishable foods home, donating food to the local food pantry, or using them for afterschool programs. Logistical considerations must be addressed for a share table to be successful.

In-School Redistribution

Schools should prioritize giving food from share tables to the students. Logistically speaking, this tends to be the most viable option. This also has the potential to impact student food insecurity, while ensuring that the food is eaten by the people it was originally intended for. The following are some potential uses for in-school redistribution:

- Use food as an after-school program snack.
- Send food home with students. School social workers or parent liaisons can identify students who would most benefit from the excess food and ensure that the food be sent home with those students at the end of the day.
- Have students take one or two items back with them on their way out of the lunch room to eat later in the day.
- Offer food to students, parents/guardians and school staff to take home at dismissal.

TIP: Having a dedicated excess food refrigerators can improve a school's ability to reuse excess food by keeping food safe until dismissal or afterschool programs.



Out-of-School Redistribution

If in-school redistribution options are not feasible, or if food on the share table is still going to waste, schools can partner with local food pantries, soup kitchens, shelters, and other community partners to redistribute the remaining food. The following are some techniques and tips for working with community partners to redistribute food from share tables.

- Safely transporting the food may present logistical complications, so decisions need to be made regarding how and when left over food will get to the community partner. Some community partners may have the ability to pick up leftover food; however, the frequency of these pick-ups will vary depending on their resources and availability to travel to your school. Keep in mind that the frequency of pick-ups may impact the types of foods that may be shared, as some have longer shelf lives than others.
- Having a dedicated refrigerator for share table food allows for more flexibility in timing to transport the food, and may make it more feasible for a community partner to establish a partnership with a school to pick up excess food.
- Ask your community partners to track how much food is being donated and where it is going. This will help you to understand which food waste reduction techniques are working well for your school and for your community partners, and if you need to make adjustments to your approach.
- Consider working with multiple community partners to ensure all excess food is utilized.

School Policy Changes

Lunch Time Matters

In addition to the above-mentioned approaches to reducing food waste, schools can implement other techniques to help increase consumption and reduce food waste during lunchtime.

- Research indicates that moving lunchtime to occur after recess can help reduce food waste by as much as 30%. After recess, students tend to be hungrier and eat more, thereby wasting less.
- Studies show that increasing lunchtime by 10 minutes has the potential to reduce food waste by one-third by giving students more time to eat.
- Making lunchtime atmosphere less chaotic and calmer can help reduce food waste.

Offer versus Serve

“Offer versus Serve” (OVS) is a provision that allows students to decline some of the food offered at school meals.⁹ The goals of OVS are to reduce food waste in school meals while permitting students to decline foods they do not intend to eat. This differs from the previous way of serving meals, which required that students be served all components of every meal. Although this is a technique sanctioned by the USDA, oftentimes school food service staff may not be aware that OVS is an option, or may not know how to properly implement OVS. See Appendix D for details on Offer vs Serve guidelines.

Smarter Lunchroom Movement

The Smarter Lunchrooms Movement (SLM) was introduced by Cornell University in 2009 after researchers in behavioral economics and child nutrition found that changes in the lunchroom environment—

⁹ <https://www.fns.usda.gov/updated-offer-vs-serve-guidance-nslp-and-sbp-beginning-sy2015-16>

specifically, those encouraging students to select, eat and enjoy healthier foods in school without eliminating choice—can primarily increase consumption of healthy foods, while still decreasing food waste in school districts.¹⁰ Smarter Lunchrooms strategies are free or low-cost solutions that nudge students to voluntarily select the healthiest food in the lunchroom. Examples include:

- Offering both fresh and canned fruits, as well as cooked or raw vegetables with dips for students to choose which they would prefer.
- Serving pre-sliced fruits and vegetables for younger students who may have trouble peeling or eating certain fruits and vegetables.
- Having a spice bar at the end of the lunch lines with low sodium condiments such as lime juice, basil, oregano, and cinnamon to give more flavor to the students' meals.

Smarter Lunchrooms can see less waste, more satisfied students, and increased consumption of important nutrient-rich foods. See resources page for the link to Smarter Lunchrooms Movement.

Stakeholder Involvement

Creating and maintaining good relationships with various stakeholders is key to implementing a successful school food waste recovery program. Teachers, principals, school food service staff, students, parents, and maintenance staff all may have different reasons for being interested in reducing food waste. It is important that as many stakeholders as possible be involved in the development of a school food waste reduction program from the early stages so that everyone's perspectives may be considered.

Fortunately, the USDA and EPA have developed several resources that support the implementation of such a program. These resources are readily available and may be shared with any and all stakeholders to garner support of school food waste reduction efforts.

The onus of implementing a school food waste reduction program may initially fall on you. However, as you gain supporters and advocates among stakeholders, you will be able to gradually delegate responsibility to school administrators, teachers, other school staff, and even students.

Connect with Students

Engaging students to learn about food waste issues is an important step in reducing food waste in schools. Share tables can be a good first step to introduce the idea of food waste to the students. Other ways to engage students in the process of reducing school food waste include involving them in a food waste audit or watching a documentary on food waste. Consider working with student councils or other student groups to fully engage students in the issue of food waste.



¹⁰ <https://www.smarterlunchrooms.org/>

Resources

Food Insecurity Statistics

<https://map.feedingamerica.org/>

Food Waste in The U.S.

<https://www.nrdc.org/resources/wasted-how-america-losing-40-percent-its-food-farm-fork-landfill>

Food Waste in Schools

<https://www.ncbi.nlm.nih.gov/pubmed/23332326>

https://www.usda.gov/oce/foodwaste/resources/K12_schools.html

The EPA's Food Recovery Hierarchy

<https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy>

The USDA's Guidance on Share Tables

https://fns-prod.azureedge.net/sites/default/files/cn/SP41_CACFP13_SFSP15_2016os.pdf

The USDA's Offer vs Serve Guidance

<https://www.fns.usda.gov/updated-offer-vs-serve-guidance-nslp-and-sbp-beginning-sy2015-16>

Smarter Lunchrooms Movement (SLM)

<https://www.smarterlunchrooms.org/scorecard-tools/smarter-lunchrooms-strategies>

Summit Partner Agencies

<https://njaes.rutgers.edu/extension/>

<https://www.feedingmiddlesexcounty.org/>

<http://elijahspromise.org>

<http://www.engage.rutgers.edu/>

<http://www.middlesexcountynj.gov/Government/Departments/mcia/Pages/default.aspx>

List of Attached Appendices:

- **Appendix A: USDA Infographic on Food Waste in Schools**
- **Appendix B: USDA guidelines on Share Tables**
- **Appendix C: Sample HACCP plan for Share Table**
- **Appendix D: USDA Offer Vs. Serve guidelines**



United States Department of Agriculture

R E D U C I N G F O O D W A S T E

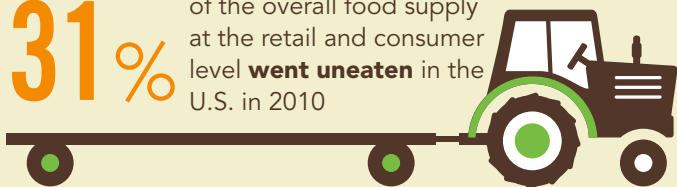
WHAT SCHOOLS CAN DO TODAY



USDA's Economic Research Service estimates

31%

of the overall food supply at the retail and consumer level **went uneaten** in the U.S. in 2010



=



Scheduling recess before lunch can **reduce plate waste by**

AS
MUCH
AS

30%



Extending lunch periods from

20 TO 30

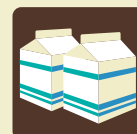
minutes reduced plate waste by nearly one-third



SMARTER LUNCHROOM STRATEGIES,

such as **how foods are named** and **where they are placed in the cafeteria**, can facilitate healthy choices and increase fruit and vegetable consumption by

UP TO **70%**



SCHOOLS ACROSS THE COUNTRY ARE STEPPING UP TO THE CHALLENGE WITH INNOVATIVE NEW STRATEGIES, SUCH AS:

- Allowing students to keep a lunch or breakfast food item for consumption later in the school day
- Using techniques listed on the **Smarter Lunchrooms Self-Assessment Score Card** to help reduce food waste
- Setting up a table for kids to place items they are not going to consume (packaged or pre-portioned items)
- Letting kids self-serve
- Composting food waste for school gardens
- Collaborating with local farmers on composting or food-scrap projects
- Collecting excess wholesome food after mealtimes to donate to charitable organizations
- Sign up for the **U.S. Food Waste Challenge** to share your story on how you are reducing, recovering, or recycling food waste



Food and
Nutrition
Service

DATE: June 22, 2016

Park Office
Center

MEMO CODE: SP 41-2016, CACFP 13-2016, SFSP 15-2016

3101 Park
Center Drive
Alexandria
VA 22302

SUBJECT: The Use of Share Tables in Child Nutrition Programs

TO: Regional Directors
Special Nutrition Programs
All Regions

State Directors
Child Nutrition Programs
All States

Using “share tables” is an innovative strategy to encourage the consumption of nutritious foods and reduce food waste in the National School Lunch Program (NSLP), School Breakfast Program (SBP), Child and Adult Care Food Program (CACFP), and Summer Food Service Program (SFSP). This memorandum provides a reminder of the opportunities presented by share tables, extends the use of share tables to the at-risk afterschool component of the CACFP, and gives an overview of the food safety requirements Child Nutrition Program (CNP) operators must follow when choosing to include share tables in their meal service. CNP operators include school food authorities, local educational agencies (LEAs), CACFP institutions, and SFSP sponsors.

The Food and Nutrition Service (FNS) encourages State agencies to support CNP operators in their efforts to increase consumption of nutritious foods and minimize food waste in their programs. As a reminder, all CNP operators must plan, prepare, and order food with the goal of providing one meal per child at each meal service. If a school, CACFP institution, or SFSP sponsor has leftover or unusable foods on a frequent basis, menu planning and production practices should be adjusted to reduce leftovers or unusable foods.

Share Table Overview

FNS regulations require participating schools, CACFP institutions, and SFSP sponsors to provide reimbursable meals that meet specific meal pattern requirements outlined in 7 CFR 210.10, 220.8, 226.20, and 225.16, respectively. However, FNS recognizes that, for various reasons, children may not always want to consume certain food or beverage items included in their meal. “Share tables” are tables or stations where children may return whole food or beverage items they choose not to eat, if it is in compliance with local and State health and food safety codes. These food and beverage items are then available to other children who may want additional servings.

Share tables allow food or beverage items to be reused in a number of ways, depending on the Program's preference:

- Children may take an additional helping of a food or beverage item from the share table at no cost;
- Food or beverage items left on the share table may be served and claimed for reimbursement during another meal service (i.e., during an afterschool program when leftover from a school lunch); and/or
- Food or beverage items may be donated to a non-profit organization, such as a community food bank, homeless shelter or other non-profit charitable organization (see SP 11-2012, CACFP 05-2012, SFSP 07-2012, *Guidance on the Food Donation Program in Child Nutrition Programs*, http://www.fns.usda.gov/sites/default/files/SP11_CACFP05_SFSP07-2012os.pdf).

FNS Instruction 786-6 provides FNS the authority to allow the use of share tables and the recycling of food and beverage items in CNPs. The Instruction allows milk (when the milk carton is unopened and the proper temperature is maintained) and other meal components that are served to be retrieved for re-service if such a practice is permitted under local and State health and food safety codes. The Instruction also states that food or beverage items should only be reused in situations where it is necessary to prevent food waste. It is important to note that when using a share table, CNP operators are able to claim the reimbursable meal at the point of service even if a child then puts one or more of the meal components on the share table. When food items are left on the share table at the end of the meal service, that food can be used in later meals that are claimed for reimbursement.

As always, CNP operators should take steps to encourage consumption of the meal, including preparing appealing meals and serving them in a convenient manner. For example, CNP operators are encouraged to promote meal consumption by including an option of cut up whole fruit to make it easier to eat, and engaging children through taste tests, student advisory committees, and nutrition education. These practices help ensure children get the most out of the food assistance programs.

Food Safety Requirements for Share Tables

As with all foods and beverages prepared for the NSLP, SBP, CACFP, and SFSP, CNP operators choosing to use share tables must follow the food safety requirements outlined in 7 CFR 210.13, 220.7, 226.20(l), and 225.16(a), respectively. In addition, CNP operators must be aware of all applicable local and State health and food safety codes to ensure their use of share tables does not violate any of those codes. It is important to keep in mind that local and State health and food safety codes may be more restrictive than the FNS requirements, or may place specific limitations on which food or beverage items may be reused. To ensure compliance with food safety requirements, CNP operators should discuss plans for a share table with their local health department and State agency prior to implementation. Further, schools must ensure that their policies for saving and sharing food or beverage items are consistent with the LEA's Hazard Analysis and Critical Control Point (HACCP) plan.

Regional Directors

State Directors

Page 3

Please see section 3-306.14 of the 2013 the Food and Drug Administration (FDA) Food Code for more information about food safety considerations when re-serving food (available at: <http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/>). In addition, see the attachment for a list of food safety requirements and other best practices to consider when establishing a share table.

Other Strategies to Reduce Food Waste

FNS has additional resources available to Program operators interested in reducing food waste in the CNPs:

- Creative Solutions to Ending School Food Waste: <http://www.fns.usda.gov/school-meals/creative-solutions-ending-school-food-waste>
- Join the Food Waste Challenge: <http://www.usda.gov/oce/foodwaste/join.htm>
- The Smarter Lunchroom Movement: <http://smarterlunchrooms.org/>
- SP 41-2014, *Clarification of the Policy on Food Consumption Outside of Foodservice Area*, <http://www.fns.usda.gov/sites/default/files/SP41-2014os.pdf>

State agencies are reminded to distribute this information to Program operators immediately. Program operators should direct any questions regarding this memorandum to the appropriate State agency. State agency contact information is available at <http://www.fns.usda.gov/cnd/Contacts/StateDirectory.htm>. State agencies should direct questions to the appropriate FNS Regional Office.

Original Signed

Angela Kline

Director, Policy and Program Development Division

Child Nutrition Programs

Attachment

Attachment: Share Tables Food Safety Requirements and Other Best Practices

This resource provides a list of food safety requirements and other best practices to consider when establishing a share table.

Step 1 (REQUIRED): Follow Federal, State, and local health and food safety requirements:	
<ul style="list-style-type: none">• Comply with FNS food safety requirements outlined in 7 CFR 210.13, 226.20(l), and 225.16(a).• Comply with all local and State health and food safety codes, including storage of reused items.• <u>Schools only</u>: Ensure policies for saving and sharing food or beverage items are consistent with the local educational agency's Hazard Analysis and Critical Control Point (HACCP) plan.	
Step 2: Establish clear guidelines for food components that may and may not be shared or reused as part of a later reimbursable meal:	
<ul style="list-style-type: none">• <i>Food components FNS recommends sharing:</i><ul style="list-style-type: none">○ Unopened pre-packaged items, such as a bag of baby carrots or sliced apples stored in a cooling bin.○ Whole pieces of fruit, such as apples or bananas.○ Unopened milk, if immediately stored in a cooling bin maintained at 41°F or below.	<ul style="list-style-type: none">• <i>Food components FNS does not recommend sharing:</i><ul style="list-style-type: none">○ Unpackaged items, such as a salad bowl without a lid.○ Packaged items that can be opened and resealed.○ Open items, such as an opened bag of baby carrots or sliced apples.○ Perishable foods, when a temperature control mechanism is not in place.
Step 3: If sharing items that require cooling is permissible under local and State laws, establish strict food safety guidelines to prevent the risk of foodborne illness:	
<ul style="list-style-type: none">• Maintain proper temperature (and temperature logs) (<i>41 degrees Fahrenheit or colder</i>) by storing food components in a temperature controlled storage bin, such as an ice tub or cooler.• Make note of expiration dates on packaged foods, and do not intermix reused items with items that have not yet been prepared and served yet.• Decide how many times a food item can be re-used (recommended just once).	
Step 4: Supervise the share table at all times to ensure compliance with food safety requirements:	
<ul style="list-style-type: none">• Ask supervisors to make sure packaging of items placed on the share table is not open, punctured, or otherwise compromised.• If cooling bins are used, have supervisors monitor the bin to ensure that time and temperature control requirements are met.• Invite children to participate as “share table helpers,” or assistant monitors, teaching them about the importance of food safety and recycling.	
Step 5: Promote the share table to children and families:	
<ul style="list-style-type: none">• Provide children and families with information about share table guidelines.• Ask for input from parents and guardians, and make sure families are comfortable with their children participating in the share table option.• Explain the share table concept to children, taking care to emphasize the importance of healthy eating and trying new foods whenever possible.• Display signage outlining share table “rules” and encouraging recycling.	

Redistribution of Returned Food/Share Tables

Sample HACCP-Based Standard Operating Procedure (SOP)

Purpose: To provide guidance on food items approved for redistribution in the cafeteria setting while maintaining food safety protocols to prevent the risk of a foodborne illness.

Scope: This procedure applies to child nutrition programs that allow approved foods to be returned to a “share table” and utilized for redistribution.

Instructions:

Re-Service (redistribution) refers to the transfer of food that is unused and returned by a consumer after being served or sold in the possession of the consumer, to another person.

USDA Regulation 7 CFR 210.9(14) and 220.7(8): Each school food authority (SFA) participating in the NSLP and SBP agrees to “maintain, in the storage, preparation, and service of food, proper sanitation and health standards in conformance with all applicable State and local laws and regulations and must comply with FNS food safety requirements of 7 CFR 210.13, 226.20(1) and 225.16(a).”

FNS Instruction 786-6: “SFA operators must be aware of all applicable local and State health and food safety codes to ensure their use of share tables does not violate any of those codes. It is important to keep in mind that local and State health and food safety codes may be more restrictive than the FNS requirements, or may place specific limitations on which food or beverage items may be reused. To ensure compliance with food safety requirements, SFA operators should discuss plans for a share table with their local health department and State agency prior to implementation”

Allowable Food and Beverage Redistribution Practices:

- Children may take an additional helping of a food or beverage item from the share table at no cost;
- Food or beverage items left on the share table may be served and claimed for reimbursement during another meal service (i.e. during an afterschool snack program when leftover from a school lunch); and/or
- Food or beverage items may be donated to a non-profit organization, such as a community food bank, homeless shelter or other non-profit charitable organization (see SP 11-2012, CACFP 05-2012, SFSP 07-2012: *Guidance on the Food Donation Program in Child Nutrition Programs*).

Food and Beverages Allowed for Redistribution:

- Un-opened, pre-packaged shelf stable food items, such as granola bars, cereal packs, crackers, ketchup packets, and drinks.
- Wrapped fruit and vegetables or fruit with a thick skin like washed apples, bananas, and oranges, with the peel intact.
- Un-opened, pre-packaged potentially hazardous or perishable food items, such as string cheese or milk (*see below for specific instructions on potentially hazardous or perishable foods*)

Foods and Beverages Not Allowed for Redistribution:

- Unpackaged food items, such as a salad bowl without a lid
- Packaged items that have been opened, punctured, or otherwise compromised, such as an open bag of baby carrots
- Packaged items that can be opened and resealed
- Foods that have reached their expiration date
- Food items brought from home

Potentially Hazardous or Perishable Foods:

Option 1:

If the following conditions are met and the local health sanitarian has provided approval, potentially hazardous foods, such as milk, may be returned to storage and re-served at the next meal service:

1. Items must be placed in a separate temperature-controlled storage unit, such as a refrigerator or mechanical display cooler, after the point of sale.
2. Items must be stored at or below 41°F, with temperatures being monitored and documented on the Share Table Temperature Log every two hours or at the end of the meal service, if service is less than two hours in length.
3. Returned unopened packaging shall be inspected by the share table monitor to ensure it has not been compromised and that the expiration date has not passed.
4. Returned unopened items shall not be intermixed with food and beverages in storage; instead, they must be stored in a separate container, to be used first at the next meal service.

Option 2:

If the following conditions are met and your local health sanitarian has provided approval, foodservice employees may use time as a public health control to allow students to share unopened, unwanted potentially hazardous or perishable foods on the share table:

1. School notifies their local health sanitarian that they plan to use time as a public health control and outlines their procedure for ensuring the student's safety using the Minnesota Department of Health or local health agency's Time as a Public Health Control Form.
2. Returned, unopened items shall be inspected by the share table monitor to ensure the packaging has not been compromised.
3. Items are placed on a designated share table, which could include (but not required) a separate storage container or tray with ice.
4. Items are discarded after four hours outside of temperature control, or after the meal service, whichever is sooner.

Monitoring:

1. Foodservice employees will continually monitor that all potentially hazardous or perishable foods, such as milk cartons, are maintained at proper temperatures. Temperatures of these items must be monitored and documented every two hours or at the end of the meal service, if the service is less than two hours in length. Alternatively, if time is used as a public health control for potentially hazardous items, the items are discarded after four hours or after the meal service, whichever is sooner.
2. Foodservice employees will inspect *all* items placed on the share table to ensure they are all allowable items, their packaging has not been compromised, and expiration dates have not yet passed.

Corrective Action:

1. Retrain any foodservice employee found not following the procedures in this SOP.
2. Discard items found on the share table if:
 - a. They are considered unallowable food items
 - b. They are potentially hazardous/perishable and found to be above 41°F when temperatures are monitored
 - c. Their packages have been compromised
 - d. The expiration date has passed

Verification and Record Keeping:

Foodservice employees will document temperatures of potentially hazardous/perishable foods left on the share table on the Share Table Temperature Log as specified in the Instructions Section of this SOP. Foodservice employees will document all items for redistribution on the Food Recovery Log. The foodservice manager will verify that foodservice employees are following this procedure by visually monitoring foodservice employees and food handling during the shift. These logs are to be kept on file for a minimum of one year.

Date Implemented: _____ By: _____

Date Reviewed: _____ By: _____

Date Revised: _____ By: _____

This form was modified from the template SOP developed by USDA and Institute for Child Nutrition. For additional guidance on Share Tables from USDA, please see USDA memorandum SP-41 2016.



DATE: July 21, 2015

MEMO CODE: SP 41-2015

SUBJECT: Updated Offer versus Serve Guidance for the National School Lunch Program and School Breakfast Program Effective Beginning School Year 2015-2016

TO: Regional Directors
Special Nutrition Programs
All Regions

State Directors
Child Nutrition Programs
All States

Offer versus Serve (OVS) is a provision in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) that allows students to decline some of the food offered. The goals of OVS are to reduce food waste in the school meals programs while permitting students to decline foods they do not intend to eat.

Attached is the updated guidance manual for operators using OVS, which is optional at all grade levels for breakfast and required at the senior high school level only for lunch.

This guidance is intended to clarify the requirements of OVS, specifically related to what students must take in order to have a reimbursable meal.

An amendment to this guidance has been made under the milk option section to make it clear that while water must be available to students during meal service, operators may not offer water as an alternative to milk, as water is not considered part of the reimbursable meal. Other modifications are minor, primarily removing dates related to provision phase-in.

OVS at Lunch

At lunch, schools must offer students all five required food components in at least the minimum required amounts. The components at lunch are: meats/meat alternates; grains; fruit; vegetables; and fluid milk. Under OVS, a student must take at least three components in the required serving sizes. One selection must be at least ½ cup from either the fruit or vegetable component.

Regional Directors

State Directors

Page 2

OVS at Breakfast

At breakfast, schools must offer students all three required food components in at least the minimum required amounts. The components at breakfast are: grains (with optional meats/meat alternates allowed); juice/fruit/vegetable; and milk. Under OVS, a student must be offered at least four food items and must select at least three food items, one of which must be ½ cup of fruit or vegetables for OVS.

For specific questions related to the lunch or breakfast meal pattern requirements, please refer to Food and Nutrition Service (FNS) memorandum SP 10-2012v.8, Q&As on the Final Rule - Nutrition Standards in the National School Lunch and School Breakfast Programs <http://www.fns.usda.gov/sites/default/files/SP10-2012v8os.pdf>.

We appreciate all you do for the School Meal Programs and look forward to continuing to work with you to improve the nutrition of America's children. State agencies are reminded to distribute this memo and attachment to program operators immediately. SFAs should contact their State agency for additional information. State agencies may direct any questions concerning this guidance to the appropriate Food and Nutrition Service Regional Office.

Original Signed

Angela M. Kline

Director

Policy & Program Development Division

Child Nutrition Programs

Attachment

Notes



July 2019



PATERSON PUBLIC SCHOOLS



Department of Food Services
200 Sheridan Ave, Paterson NJ 07502
Office: (973) 321-0950 Fax: (973) 321-0953

David Buchholtz
Executive Director of Food Services
dbuchholtz@paterson.k12.nj.us

Eileen F. Shafer, M.Ed.
Schools Superintendent

February 11, 2021

Dear Awards Committee,

I am writing this letter in support of the Rutgers Cooperative Extension Food Waste Reduction Team, led by Sara Elnakib.

Paterson Public schools was the first school to work with the Rutgers Cooperative Extension Food Waste Reduction Team on this critical issue. The partnership was mutually beneficial with Rutgers supporting our staff and students on strategies for reducing food waste in school. By educating our students and staff we were able to make an impact on food waste in our district and encourage other districts to work with the Rutgers Cooperative Extension Food Waste Reduction Team.

I was invited to speak at the Rutgers school Food Waste Reduction Summit in July 2019 and reiterated my support for the program as well as encouraged other school food service directors to work with Rutgers on this important issue. Currently our food service staff incorporated all the strategies presented at the training and have done so since 2017. It is with great pleasure I recommend Sara Elnakib and the Rutgers Cooperative Extension Food Waste Reduction Team for this national award. Their program brings great value to our school district and we hope that with this recognition more schools will learn about the program and participate as we did.

Thank you for your time and consideration.

Sincerely,

David Buchholtz
Executive Director of Food Services
Paterson Public Schools



NEW BRUNSWICK PUBLIC SCHOOLS
BUSINESS OFFICE

268 Baldwin Street - P.O. BOX 2683
NEW BRUNSWICK, NEW JERSEY 08903-2683
OFFICE: (732) 745-5300, EXT. 5410 / FAX: (732) 418-2210

AUBREY A. JOHNSON, Ed.D
Superintendent of Schools

RICHARD D. JANNARONE
Business Administrator/Board Secretary

February 3, 2021

Dear Awards Committee,

I am writing this letter in support of the Food Waste Reduction Program, led by Jennifer Shukaitis and Sara Elnakib and completed in close partnership with New Brunswick Public Schools.

This program took on an issue that affects not only students, but also school employees and the larger local and global communities. As a result of this program, our students became more aware of the impacts that food waste has on the environment and learned strategies for reducing food waste in school. In some of our schools, students were even able to take on leadership roles in implementing share tables and other food waste reduction efforts.

The work completed by the team from Rutgers served to inform our food service and other staff of best practices from the Smarter Lunchroom Movement, especially in regard to how they affect food waste and student nutrition. The program also helped us to understand the impact that school food waste has on the environment and our school district's budget. Our food service staff took into consideration the information from the training when determining how to improve their everyday practices in our schools' cafeterias.

We greatly appreciate the time and work that Jennifer Shukaitis and Sara Elnakib took to execute this valuable program in our school district.

Sincerely,

Richard Jannarone
School Business Administrator/ Board Secretary
New Brunswick Public Schools