



# REDUCING FOOD WASTE IN OUT-OF-SCHOOL TIME BEST PRACTICES GUIDE





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# INTRODUCTION

Drawing from recommendations of national and regional experts, these best practices guidelines are tailored to meet the needs of park and recreation agency out-of-school-time (OST) programs and to focus on food waste at all stages of the food service process — from planning, to procurement and ordering, serving, handling and storage of uneaten foods, and disposal.

Environmental conservation is a core mission of park and recreation agencies. This resource supports that mission by providing you with specific strategies to help you reduce food waste. The overwhelming majority of children served by park and recreation agency OST programs are of elementary and middle school age — a critical life stage at which to form healthy eating habits and to learn about conservation of natural resources.<sup>1</sup> In these pages, you will find:

- a succinct summary of why it is important to tackle food waste and how, by taking active steps, you can benefit your programs and the children you serve;
- the evidence-based federal policies, and potential challenges you may encounter;
- best practices recommendations for active steps you can take to decrease food waste in each stage of food service operations through assessment and planning; ordering, purchasing and food procurement; serving; food reuse, including storage and handling; and disposal, diversion and donation;
- examples of recommendations for action, drawn from agencies that are leading the way; and
- links to additional resources and tools

Remember — at each stage of the process and prior to implementation — to consult with relevant authorities in your area to ensure that your program is compatible with state and local policies.

**90 percent**  
of park and recreation agencies offer  
**at least one type of out-of-school-time (OST) programming**

The most common programs offered are



Summer Camps



Organized Youth Sports Leagues



Afterschool Care

In addition to providing **engaging activities** and **educational enrichment**, **57 percent** of these OST programs **provide healthy meals and snacks** through USDA child nutrition programs

**76 percent** of agencies in metropolitan areas and **72 percent** of agencies that serve a majority of children of color **provide healthy meals and snacks**

Source: NAT'L RECREATION AND PARK ASSOC., NRPA OUT-OF-SCHOOL TIME SURVEY RESULTS: ENRICHING THE LIVES OF CHILDREN THROUGH PARK AND RECREATION (2016), [http://www.nrpa.org/uploadedFiles/nrpa.org/Publications\\_and\\_Research/Research/Papers/Out-of-School-Time-Survey-Results-Report.pdf](http://www.nrpa.org/uploadedFiles/nrpa.org/Publications_and_Research/Research/Papers/Out-of-School-Time-Survey-Results-Report.pdf)

# HOW FOOD WASTE AFFECTS THE CHILDREN YOU SERVE

More than one third of all food in the United States is discarded each year.<sup>2</sup> Food waste in programs serving children raises a special set of concerns beyond the harmful environmental impact commonly associated with food waste.<sup>3</sup> In these settings, food waste can have adverse consequences for child nutrient intake,<sup>4</sup> can increase program costs,<sup>5</sup> impact staff morale,<sup>6</sup> and can be an indicator of low or inconsistent program attendance.<sup>7</sup>

Food waste is part of virtually all food service operations in programs serving children, and can be generated during food preparation, from spoilage and, ultimately, as plate waste.<sup>8</sup> There is limited research about food waste in OST programs, but research from the [National School Lunch Program \(NSLP\)](#) offers a useful analog. A 2013 study of NSLP-eligible middle school youth found that, on average, these students consumed just 60 percent of lunch foods served and that their average calorie intake was only half of the federal requirements.<sup>9</sup> Students discarded roughly 19 percent of their entrées, 47 percent of their fruit, 25 percent of their milk and 73 percent of their vegetables.<sup>10</sup> In terms of the cost of food waste, students discarded 26 percent of the total food budget annually.<sup>11</sup>

The rate of food waste generated by older elementary school students is comparable to or higher than the rate of waste generated by middle school students,<sup>12</sup> and kindergarteners and first-graders have the highest rates of food waste among K-12 students.<sup>13</sup> OST programs and camps administered by park and recreation departments across the country have observed similar food waste issues.<sup>14</sup>

By taking steps to reduce food waste, you have the opportunity to benefit the children you serve in many ways.

- Food waste can add to your food costs. Sponsors and food vendors can use the funds saved through waste reduction efforts to improve the overall quality of food served.
- Serving high-quality meals and snacks that are less likely to be discarded can improve your program participation rates, which can extend program reach and strengthen your program's overall impact.<sup>15</sup>
- By reducing food waste, you may also improve healthy eating by the children you serve. Research shows that healthy, nutrient-dense fruits, vegetables and milk are the most likely items to go uneaten.<sup>16</sup>
- Having the children in your program help to tackle food waste can open their minds to many important issues beyond their own plates. It offers a great way for them to explore broader subjects, like global ecology; the food production cycle; community waste system practices, like composting and recycling; and healthy eating.

## Child Nutrition Programs

Park and recreation agency OST programs participate in the following USDA child nutrition programs:

- [Summer Food Service Program \(SFSP\)](#): SFSPs are run as open sites, enrolled sites or camps. Open sites serve free meals and snacks to all children in a low-income area, and enrolled sites serve free meals to all children enrolled in a program with at least 50 percent of children eligible for free or reduced-price school meals. Participating camps provide reimbursable free meals and snacks to children based on their individual eligibility. In general, SFSPs can serve up to two meals, or one meal and one snack, per child. Camps can serve up to three meals per day.
- [Child and Adult Care Food Program \(CACFP\)](#): The CACFP's At-Risk Afterschool component provides up to one free snack and one free meal per child in attendance areas where at least 50 percent of children are eligible for free or reduced-price school meals. The program is available to OST programs during the school year, including on weekends and holidays.
- [National School Lunch Program \(NSLP\)](#): The NSLP's [Afterschool Care Snack Service](#) is available for programs sponsored or operated by a school district and allows for one snack to be served on regular school days.

Participating programs must comply with all applicable USDA nutrition standards and portion sizes for foods served.

Sources: USDA, FOOD AND NUTRITION SERVICE PROGRAMS FOR OUT-OF-SCHOOL-TIME PROVIDERS, [http://www.fns.usda.gov/sites/default/files/Afterschool\\_Options.pdf](http://www.fns.usda.gov/sites/default/files/Afterschool_Options.pdf); Food & Nutrition Servs., USDA, [Child and Adult Care Food Program, Afterschool Meals](#), <http://www.fns.usda.gov/cacfp/afterschool-meals>.

# BEST PRACTICES

## CONDUCTING ASSESSMENTS & PLANNING FOR CHANGE

Food waste is measurable and preventable. The U.S. Environmental Protection Agency (EPA) suggests that you conduct a food waste assessment as a first step toward reducing food waste in your program (Table 1).<sup>17</sup> A food waste assessment measures the amount of pre- and post-consumer waste produced and examines the reasons why. In a traditional food service operation, pre-consumer food waste is generated in the kitchen during food preparation and as a result of spoilage. Post-consumer food is excess, prepared food that has not been served and uneaten plate waste. By taking initial steps to conduct a food waste assessment, you will reveal the scope of the issue in your program, identify specific problem areas and establish a baseline for planning and gauging future successes.

**TABLE 1: U.S. EPA Food Waste Assessment Best Practices**

Step 1: Develop Assessment Goals and Target Wasted Food Stream Components

Step 2: Complete a Pre-Assessment Questionnaire

Step 3: Plan the Assessment Process

Step 4: Identify and Accomplish Assessment Logistics

Step 5: Conduct Assessment and Collect Data

Step 6: Analyze and Report Results

Source: OFF. OF SOLID WASTE & EMERGENCY RESPONSE, U.S. EPA, EPA-530-F-15-003, A GUIDE TO CONDUCTING AND ANALYZING A FOOD WASTE ASSESSMENT (2014), [https://www.epa.gov/sites/production/files/2015-08/documents/r5\\_fd\\_wste\\_guidebk\\_020615.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/r5_fd_wste_guidebk_020615.pdf)

### **Federal Policies**

Sponsoring agencies and sites that serve USDA child nutrition program-funded meals and snacks are required to record the items served to children by maintaining tracking logs.<sup>18</sup> This information is used to claim reimbursements and to adjust the number of meals and snacks delivered to a site from a sponsoring agency.<sup>19</sup> The tracking logs provide valuable information about the amount of food children are served, but they do not capture data on uneaten plate waste and food waste that occurs during preparation or due to spoilage.

### **Challenges**

Competing demands on your staff time and a lack of implementation tools can be initial barriers to your planning process. For example, a 2016 survey of school food service directors in Iowa found that:

- 43 percent were interested in completing a food waste assessment;
- 56 percent did not have enough time to plan and coordinate; and
- 70 percent needed guidelines to assist them with planning and implementing.<sup>20</sup>

A recent informal survey of NRPA members found similar results.<sup>21</sup> Almost one half (47 percent) were interested in completing a food waste assessment, and about one quarter (24.5 percent) had conducted a food waste assessment.<sup>22</sup>

## Recommendations for Action

A food waste assessment should evaluate how your program currently handles food waste and identify the options available in your community for food waste diversion.<sup>23</sup> It should measure the amount of waste generated and provide insights into why food is thrown away in the first place (Table 2).<sup>24</sup> The scope and complexity of the assessment depends on whether your program prepares and serves meals or snacks or whether it orders meals and snacks from an outside sponsor or food vendor. Either way, “[i]t is important to understand more than simply the quantity of total waste generated to create targeted and successful interventions.”<sup>25</sup> You can involve the program’s children and teens in the assessment process, depending on staff time available for supervision and the complexity of your food service operations.

**TABLE 2: U.S. EPA Food Waste Assessment Questions & Goals**

How Much?: Measure the Amount of Food Waste (e.g., the number of portions)
What?: Track the Type of Food Waste (e.g., bell peppers or cold sandwiches)
Why?: Document the Reason for Loss (e.g., poor taste or overcooked)
When?: Track When Waste Is Generated (e.g., Friday afternoons)

Source: U.S. EPA, EPA-909-K-14-002, REDUCING FOOD WASTE AND PACKAGING: A GUIDE FOR FOOD SERVICES AND RESTAURANTS (2015), [https://www.epa.gov/sites/production/files/2015-08/documents/reducing\\_wasted\\_food\\_pkg\\_tool.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/reducing_wasted_food_pkg_tool.pdf)

The first step in the planning phase is to make sure you understand the current systems that are in place to collect and dispose of your program’s food waste and the options available for diverting your program’s food waste from the waste stream (Table 3).

**TABLE 3: Understanding Waste Diversion & Disposal Options**

Waste Hauling Costs & Services: How are waste-hauling fees calculated (by weight, flat fee, per pull, included in rent?) Does your program facility’s hauler offer collection of food waste?
Nonperishable Foods: Does your facility have access to a local food bank that will accept nonperishable foods?
Food Recovery: Does your facility have access to a local food rescue service or another organization that accepts prepared foods?
Supplies & Logistics: How many additional collection containers will you need to collect food waste? What are the best locations for these containers? Who will be responsible for emptying the containers?
Waste Diversion Options: Does your facility have the space and ability to establish a small-scale, on-site composting system?

Source: THE GREEN TEAM, MASS. DEPT. OF ENVTL. PROTECTION, FOOD WASTE DIVERSION GUIDE FOR SCHOOLS, [http://thegreenteam.org/wp-content/uploads/2015/08/Food\\_Waste\\_Diversion\\_Guide\\_for\\_Schools\\_\(1\).pdf](http://thegreenteam.org/wp-content/uploads/2015/08/Food_Waste_Diversion_Guide_for_Schools_(1).pdf)

The next step is to calculate the amount of post-consumer food waste that your program generates. The County of San Mateo, California, has developed a straightforward approach for a student-led school food waste audit that can be used by OST programs (Table 4).<sup>26</sup> You can use this information to estimate the amount of compostable material generated and to calculate disposal costs if your program is charged for disposal.



**TABLE 4: San Mateo County, CA Food Waste Audit**

Goal: Have students conduct a one-day audit of food service waste for the meal and/or snack periods for the entire program.

Materials needed:

- Two or four garbage cans labeled (one or two for wet waste and one or two for dry waste)
- Plastic garbage bags for each of the containers
- A scale for weighing the materials in pounds
- Washable plastic tarp
- Plastic gloves for each student
- Aprons and disposable shoe covers
- Parent/guardian permission slip

Collecting Food Waste: Appoint students during the meal or snack time to help other students sort their waste into the appropriate container as follows:

- Wet Waste: Leftover lunch items, sandwiches, fruits, yogurt, cheese, chips, breads, soups, milk, contaminated paper trays or pizza boxes, used paper towels and tissues.
- Dry Waste: Candy wrappers, empty potato chip bags, lunch bags, bakery containers, all other types of wrappers (e.g., candy, cookie), empty soda or water bottles, any type of paper, plastic wrap or packaging, catalogs, magazines, cardboard and paperboard.

Source: RECYCLEWORKS, SAN MATEO COUNTY, CAL., PERFORMING A SCHOOL WASTE AUDIT, [http://www.recycleworks.org/schools/s\\_audits.html](http://www.recycleworks.org/schools/s_audits.html)

To further determine what, why and when food waste is generated, you can use a variety of toolkits and waste logs to record pre- and post-consumer food waste, the reason for the loss and the number of portions lost over time. You can use this information to adjust your future ordering, inform menu selection and determine the amount of food that you can divert from the waste stream for reuse within your program, for donation and/or for composting. Examples of assessment tools are included in the Additional Resources section below.

***Agencies Leading the Way***

In order to stay on top of food waste, one recreation agency has implemented an online meal-tracking program that has allowed its staff to monitor the program’s waste in real time and to adjust orders to reduce waste.<sup>27</sup>

***Additional Resources***

- [USDA, Measurement Tools](#)
- [U.S. EPA, Resources for Assessing Wasted Food](#)
- [U.S. EPA, A Guide to Conducting and Analyzing a Food Waste Assessment](#)
- [San Mateo County, CA, Recycle Works, Performing a School Waste Audit](#)
- [FoodSave, FoodSave DIY: Food Waste Audit](#)



## ORDERING, PURCHASING & PROCUREMENT

You can prevent food waste through source reduction to keep unneeded materials from being generated in the first place.<sup>28</sup> This section describes food ordering, purchasing and procurement strategies you can use to prevent food waste, whether or not your OST program prepares its own meals and snacks or works with a meal program sponsor.

### ***Federal Policies***

OST programs that receive federal child nutrition aid are required to track the number of meals and snacks ordered.<sup>29</sup> For example, the past order histories of SFSP sites are used each summer to calculate the initial maximum number of orders that will be approved for each site.<sup>30</sup>

### ***Challenges***

Predicting how much food you will need for your OST program can be a challenge. Programs that run open feeding sites may not be able to rely on predictable attendance. OST programs that require participants to enroll may also have widely fluctuating attendance and may not know if children who are eligible for meals and snacks will bring food from home.

### ***Recommendations for Action — Sites that Prepare Meals & Snacks***

Food preparers can reduce food waste by focusing on food quality, adopting purchasing policies, food preparation, and storage techniques, and making safe and efficient use of leftover foods.

As noted by NRPA Program Manager Allison Colman, “[y]ou can’t have a conversation about food waste without addressing food quality. While nutrition standards are in place for the federal nutrition programs, there is much room for improvement.”<sup>31</sup> Children prefer high-quality fresh fruits and vegetables and hot meals to cold meals and processed foods. The USDA encourages sponsors to purchase whole fruits, vegetables and nutrient-dense foods and to take advantage of seasonal produce harvests to provide children with nutritious foods at their freshest state.<sup>32</sup> As OST program staff, you can take active steps to improve food quality by putting a system in place to track, and then report, popular and unpopular items directly to the vendor or sponsor. You may find it helpful to reach out to other agencies in your area that receive food from your food vendor or sponsor to share your experiences and work together to communicate concerns and craft solutions.

### **Sample Afterschool Food Survey Questions**

- What do you like about the meals served?
- What don't you like about the meals served?
- What was your favorite food served this week?
- What was your least favorite food served this week?
- How do you think the meals could be made better?
- What would you like to see for supper?
- What would you like to see for snack?
- Overall, how are the meals served during your Afterschool Program (pick one):  
\_\_\_Very Good \_\_\_Good \_\_\_Average \_\_\_Bad \_\_\_Very Bad

The USDA offers several best practices for source reduction during food preparation (“back-of-the-house”) through its [U.S. Food Waste Challenge](#) (Table 5).<sup>33</sup>

**TABLE 5: USDA U.S. Food Waste Challenge Back-of-the-House Best Practices**

Order fresh produce at shorter intervals.
Serve batch-cooked meals at the last possible time and in small quantities.
Re-purpose leftovers or unsold food that is still safe to eat.
Maintain <a href="#">First In, First Out (FIFO)</a> system of inventory rotation.
Utilize a just-in-time ordering system to order only what is needed, when it is needed.

Source: FOOD & NUTRITION SERVS., USDA, FNS-485, JOIN THE U.S. FOOD WASTE CHALLENGE! (Feb. 2015), [http://www.usda.gov/oce/foodwaste/webinars/K-12/Tips\\_Resources\\_for\\_Schools.pdf](http://www.usda.gov/oce/foodwaste/webinars/K-12/Tips_Resources_for_Schools.pdf)

With careful menu planning, you can help to ensure that the food you offer is appealing and that the choices you provide will decrease food waste (Table 6). Your staff, including food preparers, can ask for feedback from children to discover which menu items they like and which ones require adjustment. Providing children with menu choices is another effective waste reduction strategy. For example, when carrots alone were offered, children ate 69 percent of the carrots taken, but when given a choice between carrots and celery, children ate 91 percent of the vegetable taken.<sup>34</sup>

**TABLE 6: USDA U.S. Food Waste Challenge Best Practices for Menu Planning**

Survey customer preferences
Use new seasoning methods
Provide choices
Name menu items
Market the menu

Source: FOOD & NUTRITION SERVS., USDA, FNS-485, JOIN THE U.S. FOOD WASTE CHALLENGE! (Feb. 2015), [http://www.usda.gov/oce/foodwaste/webinars/K-12/Tips\\_Resources\\_for\\_Schools.pdf](http://www.usda.gov/oce/foodwaste/webinars/K-12/Tips_Resources_for_Schools.pdf)



## Recommendations for Action — Sites that Order Meals & Snacks Through a Sponsoring Agency or Food Vendor

It is important, from the start, to select a food vendor that provides quality food and offers flexibility in ordering, for example, when program enrollment fluctuates (Table 7).

**TABLE 7: Questions When Selecting a Food Vendor**

Will the vendor ensure that USDA nutrition standards and guidelines are met?
Does the vendor have a meal delivery system in place to ensure that food arrives at the program site when it is needed?
Can the program change meal counts on a daily or weekly basis?
Does the vendor provide high-quality meals and snacks?
Does the vendor have a food waste reduction strategy in place?

Maintaining accurate program attendance records and daily meal and snack counts will enable you to use this information to order the proper amount of meals and snacks. You can order food daily, or, if daily ordering is not an option, you can adjust orders as frequently as permitted, based on your prior attendance records.

### Agencies Leading the Way

When permitted by the food vendor or sponsor, daily ordering has proven to be a very successful way to reduce food waste. One OST program found that when “staff followed a policy that allowed them to order the number of meals needed on a daily basis, this helped eliminate the number of unserved meals.”<sup>35</sup>

Using first in, first out (FIFO) inventory control for snacks can greatly reduce loss from packaged items that have expired. For example, one OST program succeeded in maintaining their snack inventory for every snack purchased to ensure each snack would be used before its expiration date and said, “We can proudly state that we have not wasted or thrown away any unusable snacks.”<sup>36</sup>

### Additional Resources

- [USDA, Farm to Summer Fact Sheet](#)
- [Food Research and Action Center, Fresh From the Farm: Using Local Foods in the Afterschool and Summer Nutrition Programs](#)
- [USDA, U.S. Food Waste Challenge, Team Up: Best Practices for Maximizing Your Food Resources \(Webinar\)](#)
- [Food Research and Action Center, A How-To Guide for Summer Food Sponsors on Purchasing High Quality Summer Meals](#)
- [City of Palo Alto, CA, Wasted Food Source Reduction Strategies](#)

### First In, First Out (FIFO)

With the FIFO inventory control system, you organize your food and beverages by use-by or expiration date and use the oldest items first. You place products with the earliest expiration dates in front of products with later expiration dates and use the products stored at the front of your shelves first.

## Iowa Dept. of Education Food Waste Reduction Strategies

- Implement OVS to allow students to decline certain menu items, including milk.
- Increase food choices to allow students to select foods they are likely to eat.
- Ensure that children and youth have ample time to eat.
- Post signage that describes or shows the items included in a meal or snack.

**Source:** IOWA, DEPT. OF EDUC., FOOD WASTE REDUCTION IN SCHOOL MEALS, <https://www.educateiowa.gov/pk-12/nutrition-programs/quick-links-nutrition/learning-tools-nutrition/food-waste-reduction-school>.

## SUCCESSFUL SERVING

How and when you serve meals and snacks can have a have a big impact on how much is eaten by the children you serve. This section describes best practices for serving meals and snacks, like offer versus serve (OVS) and marketing menu items.

### *Federal Policies*

The USDA permits OVS for all meals served at SFSP sites “regardless of location or type of sponsorship.”<sup>37</sup> OVS is also permitted for meals served through the CACFP At-Risk Afterschool component, as long as a school food-service authority prepares those meals, and as long as OVS is implemented using the same method used by the school that is providing the meals.<sup>38</sup> OVS allows children to decline some of the foods offered to them in a reimbursable meal (breakfast, lunch or supper).<sup>39</sup>

OVS cannot be used with snacks. The system is intended to simplify the administration of your program, reduce your food waste and costs, and ensure the nutritional integrity of the meals you serve. Sponsors using OVS can adjust the amount of items provided based on past order history. For example, if fewer children take milk, you can reduce the number of cartons you order. Keep in mind, however, that all meals offered must meet all SFSP meal requirements in order to be reimbursable. If your site runs out of milk, all of the meals you offer after the milk runs out are not reimbursable. To prevent this outcome, the USDA “encourages sponsors and sites to err on the side of caution when placing food orders.”<sup>40</sup>

### *Challenges*

Menu selection and the number of choices provided are all highly driven by the food vendor or sponsor. Working with a vendor to provide a wider array of food choices can present a challenge that you can address with regular, ongoing communication and/or by selecting a new vendor or sponsor.

### *Recommendations for Action*

The USDA’s U.S. Food Waste Challenge endorses OVS to reduce food waste. As per USDA policy, each meal served must still meet the requirements for a reimbursable meal and programs must make sure that children understand which foods they can decline. This can be accomplished through signage and instructions.<sup>41</sup>

By marketing menu items and snacks with fun and appealing names, you can significantly increase students’ consumption. For example, a recent Cornell University study found that “X-Ray Vision Carrots” doubled the consumption of carrots and “Big Bad Bean Burritos” increased burrito consumption by more than 40 percent.<sup>42</sup>

Children who are eager to participate in fun physical activities like outdoor play or games may rush through their meal or snack, contributing to plate waste and leaving them hungry later on.<sup>43</sup> By scheduling physical activity programming before meals and snacks, you can decrease plate waste by as much as 30 percent.<sup>44</sup> Providing ample time for meals and snacks also reduces wasted food.<sup>45</sup>

## Reducing Food Waste ≠ “Clean Plates”

Over-consumption of calories is a form of food waste that can lead to chronic disease.<sup>46</sup> For this reason, instead of focusing your food waste reduction efforts on “clean plates,” you should balance your program’s food waste concerns with the overall goals of teaching children to adopt healthy eating habits and select appropriate portion sizes. Harvard researchers calculate that, for NSLP meals, an average of 15 percent plate waste is a gold standard, based on the difference between the recommended daily calorie needs of children and teens and the caloric content of the meals served.<sup>47</sup>

## Agencies Leading the Way

OST providers report using a range of serving strategies to improve consumption:

“We always encourage children to try new things and have trained staff to know exactly what is on the menu for that day so they can help ‘sell’ a child on trying it. We pay attention to what is popular and order that again.”

## Additional Resources

- [USDA, Summer Meals Toolkit: How to Do Offer Versus Serve \(OVS\)](#)
- [USDA, What You Can Do to Help Prevent Wasted Food](#)
- [USDA, Strategies for Successful Implementation of the Healthy, Hunger-Free Kids Act: Plate Waste](#)

## FOOD RE-USE: STORAGE & HANDLING OF UNEATEN ITEMS

You can reuse certain leftover food as long as you comply with all applicable USDA policies and local and state health, sanitation and food safety codes. Allowing children to take home one item and making use of share tables are effective strategies to reduce food waste.



### Federal Policies

The USDA supports a variety of efforts to minimize food waste from leftover meals. Participants in the SFSP, CACFP’s At-Risk Afterschool component, and the NSLP are permitted to let children take one meal component — a whole leftover fruit, vegetable or grain item — off-site for later consumption if doing so is in compliance with state and local health and sanitation codes.<sup>48</sup> The item must be from the child’s own meal or from a [share table](#).

The USDA permits share tables in the SFSP, CACFP’s At-Risk Afterschool component, and the

NSLP.<sup>49</sup> Share tables provide children with the opportunity to return whole food or beverage items that they choose not to eat. These items are then made available to other children who may want additional servings. Share tables are permitted as long as programs comply with local and state health and safety codes.<sup>50</sup> Items taken from the share table can be consumed on or off-site. If permitted by the local health code, extra meals can be transferred to another site that has a shortage. Children can be served second helpings after all of the children in attendance have received a meal.

### Challenges

Food reuse requires appropriate supervision and adequate storage to meet applicable food safety standards. Some food vendors and sponsors may have very strict policies that prevent food sharing altogether. Food allergen risk is also a concern.

### Recommendations for Action

Share tables are a popular option that you can use to reduce food waste in your OST program. A share table allows children to return intact, whole items, like apples, that they choose not to eat. Those items are then made available to other children who may want an additional serving. A range of local and state regulatory approaches currently exists. Before you begin using a share table, you will need to review your state child nutrition and state and local food safety and sanitation policies to ensure that share tables are allowed. The USDA provides useful guidance for share tables (Table 8).<sup>51</sup> Your state may also have resources available.<sup>52</sup>



**TABLE 8: Share Tables, Food Safety Requirements & Other Best Practices**

**Step 1 (REQUIRED): Follow federal, state and local health and food safety requirements:**

- Comply with all local and state health and food safety codes, including storage of reused items.
- Comply with Food and Nutrition Services (FNS) food safety requirements outlined in 7 CFR 210.13, 226.20(l), and 225.16(a).

**Step 2: Establish clear guidelines for food components that may and may not be shared or reused:**

Food components FNS *recommends* sharing:

- Unopened, pre-packaged items, such as a bag of baby carrots or sliced apples stored in a cooling bin.
- Whole pieces of fruit, like apples or bananas.
- Unopened milk, if immediately stored in a cooling bin maintained at 41° F or below.

Food components FNS does not recommend sharing:

- 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:**

- Make note of expiration dates on packaged foods, and do not intermix reused items with items that have not been prepared and served yet.
- Maintain proper temperature (and temperature logs) (41 degrees Fahrenheit or colder) by storing food components in a temperature controlled storage bin, such as an ice tub or cooler.
- Decide how many times a food item can be re-used (recommended just once).

**Step 4: Ensure that the use of a share table comports with food allergen policies and protocols.**

**Step 5: Supervise the share table at all times to ensure compliance with food safety requirements:**

- Invite children to participate as “share table helpers,” or assistant monitors, to teach them about the importance of food safety and recycling.
- Ask supervisors to make sure that the packaging of items placed on the share table is not open, punctured or otherwise compromised.
- If cooling bins are used, ensure that supervisors monitor the bin to ensure that time and temperature control requirements are met.

**Step 6: Promote the share table to children and families:**

- 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.
- Ask for input from parents and guardians, and make sure that families are comfortable with having their children participate in the share table option.

Table adapted from: FOOD & NUTRITION SERVS., USDA, SP 41-2016, CACFP 13-2016, SFSP 15-2016, THE USE OF SHARE TABLES IN CHILD NUTRITION PROGRAMS (June 22, 2016), [http://www.fns.usda.gov/sites/default/files/cn/SP41\\_CACFP13\\_SFSP15\\_2016os.pdf](http://www.fns.usda.gov/sites/default/files/cn/SP41_CACFP13_SFSP15_2016os.pdf)

Allowing children to take one whole item off-site to eat later on can also reduce food waste. This practice is sometimes referred to as the “travelling apple.” Children can take a total of one item, which can be a leftover fruit, vegetable or grain. The one item must be from a child’s own meal or from a share table.

## ***Agencies Leading the Way***

Once properly established, OST providers have reported great success with implementing the use of share tables and allowing children to take one item to eat later on. Share tables, in particular, are very popular and their use has been widely reported by OST programs:

“The share table and taking one component home have both significantly reduced our food waste. I had to continue to keep sharing the take home federal policy with our provider before they finally agreed to let us do it. It took time, but finally was successful.”

“All of our sites incorporate a sharing table to cut down food waste. This practice has been beneficial not only for food waste, but also for those children who need a bit more food or milk to satisfy them.”

“Without fail, someone is always happy to take the share bin apple or the crackers or fat-free milk.”<sup>53</sup>

## ***Additional Resources***

- [USDA, Taking Food Components Off-site in the At-Risk Afterschool Component of the Child and Adult Care Food Program \(CACFP 22-2016\)](#)
- [USDA, The Use of Share Tables in Child Nutrition Programs \(SP 41-2016, CACFP 13-2016, SFSP 15-2016\)](#)
- [USDA, What to Do With Leftover Meals](#)

## **FOOD DONATION**

Donation of leftover, quality food reduces food waste by redistributing food to feed hungry people. This section provides you with information about food donation options, protections from liability issues associated with donated food and recommendations for action.

### ***Federal Policies***

After you have exhausted other means of reducing food waste, the USDA permits you to donate food to non-profit charitable organizations, like community food banks and homeless shelters.<sup>54</sup> When exploring options for donating food, it is important to remember that you must comply with all applicable local and state health and sanitation codes.

In order to encourage you to undertake food recovery and donation efforts, the federal Bill Emerson Good Samaritan Food Donation Act (Act), provides protection against civil and criminal liability for persons and organizations making food donations.<sup>55</sup> The Act provides protection to “persons” — including individuals, governmental entities, corporations and “nonprofit organizations” — who engage in perishable and prepared food rescue or in nonperishable processed food collection.<sup>56</sup> The Act has four main requirements: (1) the donated food items must appear to be wholesome, (2) the items must be donated in good faith, (3) the donations must be made to a nonprofit organization and (4) the nonprofit must distribute the donated items to the needy.<sup>57</sup> The Act does not provide liability protection in cases of intentional misconduct or gross negligence.<sup>58</sup> Food donors must comply with all state and local health regulations.<sup>59</sup> The federal Act establishes a minimum level of protection for donor liability. States can provide greater protection for donors but cannot provide less.<sup>60</sup>

### ***Challenges***

OST programs report that a major barrier to participating in food recovery efforts is a lack of refrigerated storage to safely hold food that is for donation. Local health department and/or sponsor policies that prohibit any food delivered to a site from being eaten off-site or transferred to another location also are barriers to food donation.



## Recommendations for Action

Food donation can be coordinated with a food recovery group that facilitates collection and distribution to anti-hunger organizations, or through a direct relationship with a food pantry, shelter or other nonprofit organization.<sup>61</sup> You will need to do some planning to determine what items are suitable for donation, which organizations are available in your community, what supplies may be needed (e.g. baskets, dedicated cold storage) and who will be responsible for the logistics of collecting and transferring food for donation.<sup>62</sup>

## Agencies Leading the Way

OST programs participate in food donation in a variety of ways:

“Our sponsoring agency donates any extra food and milk to St. Vincent DePaul when a program has been canceled for the day and food has already been ordered. The sponsor transports all meals to participating locations, allowing meals to be served to youth who would not otherwise have access.”

“We are currently in discussion with another city agency to develop a donation program with a local organization for any leftover meals.”

“Our agency has worked on adopting a non-written, informal policy with a local homeless/food distribution shelter. Once finalized, this agreement will allow us to donate our unused, non-expired, perishable items to the local shelter. They will, in return, distribute this food to families in need.”<sup>63</sup>

## Additional Resources

- [USDA, Guidance on the Food Donation Program in Child Nutrition Programs \(SP 11-2012, CACFP 05-2012, SFSP 07-2012\)](#)
- [University of Arkansas School of Law, Food Recovery: A Legal Guide](#)
- [USDA, Recovery/Donations](#) (This webpage provides links to relevant policies and a variety of food rescue organizations.)

## USDA Food Recovery Tips

- Do not assume that food cannot be donated — food banks will often take fresh produce, hot prepared foods and processed goods.
- Coordinate with your local food pantry or food bank to keep good quality food out of landfills.
- Check with your local health department to find out what foods you can donate.
- Most child nutrition programs allow you to donate yogurt, fruit cups, fresh produce, milk, granola bars, juice and other items.

**Source:** USDA, FOOD WASTE CHALLENGE, “TEAM UP: BEST PRACTICES FOR MAXIMIZING YOUR FOOD RESOURCES” (Webinar), <http://www.usda.gov/oce/foodwaste/webinars/K-12/Webinar.pdf>.

## Peer Pressure

Building an OST culture where children care about wasted food is a key to success. Be aware, however, that even when children are hungry they may feel peer pressure to donate or share their food. The Iowa Department of Education suggests that when programs implement share tables or a food donation project, they need to ensure that children are not:

- Pressured to donate food to please others
- Taking food they do not plan to eat, simply in order to donate it
- Prevented from eating foods they have selected for their meal or snack

**Source:** IOWA, DEPT. OF EDUC., FOOD WASTE REDUCTION IN SCHOOL MEALS, <https://www.educateiowa.gov/pk-12/nutrition-programs/quick-links-nutrition/learning-tools-nutrition/food-waste-reduction-school>.

## WASTE DIVERSION: COMPOSTING

In addition to taking other steps to reduce sources of food waste, you can also compost food scraps and plate waste. Composting reduces greenhouse gases by keeping food out of landfills and provides finished compost that you can use in gardens and on grounds.<sup>64</sup> Composting also presents an amazing opportunity for participatory learning in your program through hands-on activities.

### Challenges

Limited staff time, the need to purchase composting supplies and equipment, and a lack of an appropriate area to do composting can be barriers to establishing a compost system.

### Recommendations for Action

Composting involves the collection of compostable material that can be processed into finished compost on- or off-site by a third-party composting service (Table 9). You can collect food scraps generated in the kitchen as well as suitable plate waste. Your park and recreation agency may already be involved in composting through its community garden programs and may do community education about recycling and waste reduction that includes composting. Composting plate waste is a great way to get children involved with food waste reduction efforts, and their participation is truly crucial to a successful composting system. Your local public works department, community garden, garden club, recycling service or waste hauler may produce a guide and educational materials or may conduct presentations for children on the difference between trash, recyclables and compostable material.



**TABLE 9: MassDEP Green Team Compost Logistics**

Establish compost collection points (e.g., kitchen and cafeteria).
Decide how food waste will be transported from the collection points.
Decide who will transport food waste.
Decide how often food waste will be collected.
Decide who will be responsible for the maintenance and cleanliness of your compost collection system, and implement a plan.
For on-site composting, determine the best method to manage and maintain the system.

Source: THE GREEN TEAM, MASS. DEPT. OF ENVTL. PROTECTION, FOOD WASTE DIVERSION GUIDE FOR SCHOOLS, [http://thegreenteam.org/wp-content/uploads/2015/08/Food\\_Waste\\_Diversion\\_Guide\\_for\\_Schools\\_\(1\).pdf](http://thegreenteam.org/wp-content/uploads/2015/08/Food_Waste_Diversion_Guide_for_Schools_(1).pdf)

## ***Agencies Leading the Way***

Composting is a popular strategy among OST providers for reducing food waste and for teaching children about nutrition, gardening and ecology:

“We worked with our recycling department and our city sustainability office to provide worm composting bins and instructions at all six sites. Youth learned what food could be added to the worm bins to help reduce waste.”

“All sites were provided with signage to help educate participants about what food items and utensils were compost, recycling or trash. These signs were...used above receptacles so that children had a visual aid to help decide where to put the remains of their lunch or snack.”

“One of the benefits of a large department is that we have multiple parks. There is a nature center near town, and one way we were able to cut waste was to compost a lot of the half-eaten rinds, peels, etc., into the compost at that park.”

“Using a small screw-top container, students are able to collect their leftover and/or partially eaten apple core, fruit, veggie, meal and bread items to later complete a gardening and nutrition workshop with a composting component located in the garden.”<sup>65</sup>

## ***Additional Resources***

- [Lane County, OR, School Garden Project, Cafeteria Composting in Schools: Strategies, Systems and Resources for Lane County Schools](#)
- [Northeast Recycling Council, School Composting Options](#)
- [Central Vermont Solid Waste Management District, Do the Rot Thing: A Teacher’s Guide to Compost Activities](#)

## **ONGOING MONITORING**

Through careful initial assessment, planning and implementation, you can seamlessly integrate your food waste reduction efforts into your OST program work. Ongoing monitoring will help you sustain these changes, identify areas in need of adjustment or improvement and document your results so that you can celebrate your successes.

### ***Challenges***

A lack of staff time, frequent staff changes, seasonal programming, like camps and summer feeding sites, and a lack of centralized recordkeeping can be barriers to ongoing monitoring.

### ***Recommendations for Action***

Monitoring includes tracking successes and ensuring future implementation (Table 10). Have a specific goal in mind when you are formulating how to monitor your food waste reduction efforts. Your goals can include cost savings from reduced waste-hauling fees, improved food quality, increased consumption of fresh fruits and vegetables, and child participation in food waste reduction efforts. Charting your progress toward these goals will help you refine your food waste reduction efforts going forward.

**TABLE 10: MassDEP Green Team Program Monitoring & Maintenance**

Identify who will be responsible for making the program sustainable.
Develop strategies for re-educating children and staff, year to year.
Develop written instructions for incoming program staff that include lessons learned and helpful resources.
Track the volume of food waste prevented or composted by your program.
Use your tracking information to make impact assessments.
Document whether your food waste reduction program has had other benefits (e.g., increased recycling of non-compostable material).

Source: THE GREEN TEAM, MASS. DEPT. OF ENVTL. PROTECTION, FOOD WASTE DIVERSION GUIDE FOR SCHOOLS, [http://thegreenteam.org/wp-content/uploads/2015/08/Food\\_Waste\\_Diversion\\_Guide\\_for\\_Schools\\_\(1\).pdf](http://thegreenteam.org/wp-content/uploads/2015/08/Food_Waste_Diversion_Guide_for_Schools_(1).pdf)

### ***Agencies Leading the Way***

Multiple approaches are being used by OST programs to track food waste on an ongoing basis. Programs have done the following:

- Established an internal audit team to monitor food waste.
- Used online, meal-tracking software that allows staff to monitor waste in real time.
- Conducted trainings with community center staff on food waste reduction efforts.
- Put a system in place to allow for ongoing reporting of unpopular food items to the sponsoring agency.
- Dedicated time during a day camp conference for supervisors to meet with wellness staff to brainstorm ways to increase food consumption and reduce food waste.

The overall goal of tracking food waste is to achieve sustained changes in your program. An OST program leader noted: “We continue to emphasize trying new foods and not wasting the food taken. By emphasizing this with staff and repeating it to the kids, it is becoming a part of the culture at our youth centers.”<sup>66</sup>



# CONCLUSION

Reducing food waste supports the park and recreation agency OST core program goals of environmental conservation and healthy eating. Serving foods that children enjoy eating — rather than seeing children throw food in the garbage — can improve overall program attendance, reduce your food costs and help to meet children’s nutritional needs. A food waste audit is a great way to get started. You can involve children in the process of measuring your program’s food waste, gain insight into the reasons why food waste is taking place, identify your options to reduce it, implement a food waste program and reap important benefits.

Here are key steps you can take to reduce food waste in your OST program:

- Address the root causes of food waste through accurate meal counts and adjustments to your food ordering.
- Improve the quality of foods served by sourcing local produce and reporting unpopular items to your vendor or sponsor.
- If you prepare your own meals and snacks, only order foods and beverages as needed, and use the FIFO system.
- Serve meals that allow children to have more choices through menu planning and, when possible, use OVS.
- Market healthy food items on your menus with creative names, like X-ray Vision Carrots.
- Set up a share table and allow children to take one item home (if allowed by authorities).
- Where permitted and safe to do so, donate excess food to a nonprofit organization.
- Compost food waste on-site or through a community partner.

All of the above steps can be incorporated into your OST programming and can provide great educational opportunities for the children you serve! The beauty of each of these approaches is that they are *systems-change* oriented. Once you do the initial work to put these practices into place, with some ongoing reinforcement, they should become second nature and carry your program goals into the future with minimal additional effort.

## **EIGHT STEPS TO SUCCESSFUL OST FOOD WASTE REDUCTION**

1. *Address the root causes of food waste* through accurate meal counts and adjustments to your food ordering.
2. *Improve the quality of foods served* by sourcing local produce and by reporting unpopular items to your vendor or sponsor.
3. If your program prepares its own meals and snacks, *only order foods and beverages as needed, and utilize the First-In-First-Out system.*
4. *Serve meals that allow children to have more choices* through menu planning and, when possible, utilize offer versus serve.
5. *Market healthy food items* on your menus with creative names like “X-ray Vision Carrots.”
6. Set up a share table and allow children to take one item home (if allowed by authorities).
7. Where permitted and safe to do so, donate excess food to a non-profit organization.
8. Compost food waste on-site or through a community partner.



# WHAT YOU CAN DO ABOUT OST FOOD WASTE AT-A-GLANCE

## **WEIGH IT!**

Have kids separate food waste from other waste during meals and snacks and measure the amount of food waste they make. Share the results and brainstorm causes and ways to cut down on wasted food.

## **TASTE IT!**

Have kids taste test new menu items, fill out a survey, or participate in a focus group about which foods they like to eat, and why. Share the findings with whoever produces food for your program, and then try to make changes based on the feedback.

## **EAT IT!**

Kids eat and drink more if they play outside or do other physical activity before meals and snacks, so try scheduling active play before meals and snacks. Let kids keep a whole fruit, vegetable, or grain from their meal to eat later on.

## **SHARE IT!**

Set up a share table where kids can put whole items from their meals to share with other children in their program who may want an additional serving.

## **DONATE IT!**

Work with a local non-profit organization to collect uneaten food for donation. Have kids help collect food and invite the organization to come visit your program and share what they do.

## **COMPOST IT!**

Teach kids what compost is, what is compostable, and why it is so important for the soil and food production. Have kids create signs and have them help run your composting system.

## **RECYCLE IT!**

Teach kids which food packaging and food service items are recyclable, and why keeping recyclables out of the trash is important for the environment. Have kids create signs and have them help run your recycling program.

## **WEIGH IT AGAIN!**

Have kids do a follow-up food waste measurement so they can see their success.



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### National Recreation and Park Association

The National Recreation and Park Association (NRPA) is the leading non-profit dedicated to improving the health and sustainability of communities for all people through parks, recreation and conservation. NRPA represents a vast membership network of 12,000 agencies, 105,000 parks and touches the lives of more than 200 million people in virtually every community. As the trusted leader for parks and recreation, NRPA is at the forefront of the movement

to educate and empower professionals across the country to improve their community's access to healthy activities, food and education.



### Public Health Law Center

The Public Health Law Center helps create communities where everyone can be healthy. We empower our partners to transform their environments by eliminating commercial tobacco, promoting healthy food, and encouraging active lifestyles. Because we provide legal and strategic support to so many local and state health departments, health advocacy organizations, attorneys working on public health issues, and community coalitions across the country, we are helping drive many of the nation's cutting-edge public health initiatives. Founded in 2000, the Center is located at Mitchell Hamline School of Law in St. Paul, Minnesota.

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