An Ancillary Report of the
Food Service Guidelines for Federal Facilities

Contributors

Contributors to the authorship of *An Ancillary Report of the Food Service Guidelines for Federal Facilities* were from the Food Service Guidelines Federal Workgroup. This workgroup consisted of more than 60 representatives from the following nine federal departments and agencies:

- U.S. Department of Health and Human Services
- U.S. General Services Administration
- U.S. Department of Agriculture
- U.S. Department of Commerce
- U.S. Department of Defense
- U.S. Department of Education
- U.S. Environmental Protection Agency
- U.S. Department of Interior
- U.S. Department of Veterans Affairs

Contents

Introduction

Purpose

This document, *An Ancillary Report of the Food Service Guidelines for Federal Facilities*, was written to complement and provide supporting documentation for the *Food Service Guidelines for Federal Facilities*. The purpose of this report is to:

- **Describe the methods used to update** the *2011 HHS/GSA Guidelines*.
- **Provide rationales for the standards** in the *Food Service Guidelines for Federal Facilities*.

The *Health and Sustainability Guidelines for Federal Concessions and Vending Operations*[1] *(2011 HHS/GSA Guidelines**) was updated in 2017 and renamed, *Food Service Guidelines for Federal Facilities*. Updates began in April 2015 and were timed to follow the release of the *2015–2020 Dietary Guidelines for Americans, 8th Edition*[2] (*2015–2020 Dietary Guidelines*). The March 2015 release of Executive Order 13693 (*Planning for Federal Sustainability in the Next Decade*)[3] on energy efficiency and environmental performance also supported the need to update the *2011 HHS/GSA Guidelines*. This update also included a new section on food safety, guided by the *Food Code*,[4] to ensure protection against foodborne illness. Behavioral design standards were added to facilitate the food and nutrition standards by providing strategies for encouraging consumers to select healthier foods and beverages.

The *Food Service Guidelines for Federal Facilities* provides specific food, nutrition, facility efficiency, environmental support, community development, food safety, and behavioral design standards for food service concession and vending operations at federal facilities. The standards apply primarily to venues in which food is sold (such as cafeterias, cafés, snack bars, grills, concession stands, sundry shops, micro markets,[†] and vending machines) but may be adapted to venues in which food is served (such as federal hospitals, correction facilities, or military dining facilities) and the government is responsible for providing individuals with meals that meet all or part of their daily or weekly nutrition needs.[‡] Key audiences for the *Food Service Guidelines for Federal Facilities* are federal acquisition officials and staff who develop requests for food service proposals and negotiate contracts; food service vendors competing for federal food service contracts; participants in the Randolph-Sheppard Vending Facility Program; and people who monitor or advise food service operations, such as worksite wellness stakeholders or contracting officers.

Contracts for food service at federal facilities typically begin with the issuance of a request for proposal (RFP). The RFP usually describes the level and quality of food service expected

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* The U.S. Department of Health and Human Services (HHS) and the U.S. General Services Administration (GSA) released the Health and Sustainability Guidelines for Federal Concessions and Vending Operations in March 2011. The document is commonly referred to as the 2011 HHS/GSA Guidelines.

† See glossary for definition.

‡ The *Food Service Guidelines for Federal Facilities* does not apply to food served to children in child care or school settings that are governed by federal laws and regulations, including the National School Lunch Program, the School Breakfast Program, the Child and Adult Care Food Program, and the Summer Food Service Program.

for a specific location and outlines to potential bidders how their proposals will be evaluated. Standards in the *Food Service Guidelines for Federal Facilities* are intended to be written into these RFPs and can be included in the evaluation criteria for ranking proposals (typically with other criteria, such as corporate capabilities, resources, and staffing). They can help with selection of a vendor by distinguishing the best overall proposal based on the number of standards the bidder is able to implement.

Process for Updating the Food Service Guidelines

The process for updating the *2011 HHS/GSA Guidelines*[1] was coordinated by the U.S. Department of Health and Human Services (HHS) and the U.S. General Services Administration (GSA). Efforts were led by HHS's Centers for Disease Control and Prevention (CDC), specifically CDC's Division of Nutrition, Physical Activity, and Obesity[§] and Office of the Associate Director for Policy, in partnership with GSA's Public Buildings Service and Facility Management and Services Program. The Food Service Guidelines Federal Workgroup was formed and was composed of more than 60 representatives from nine key federal departments or agencies (Table 1). Workgroup members had expertise in various fields, including nutrition, food safety, facility operations and efficiency, implementation of food service guidelines, and behavioral design. All members of the workgroup were federal employees, except for two members who were contract employees for the U.S. Department of Agriculture (USDA) and CDC during the time that they participated in the workgroup. No workgroup members reported any competing interests.

Three subcommittees—Food and Nutrition, Facility Efficiency and Procurement, and Food Safety—were formed from the larger Food Service Guidelines Federal Workgroup (Table 2). Subcommittee members reviewed the *2011 HHS/GSA* Guidelines and made recommendations to keep, modify, or drop existing standards or to develop new standards. In making their recommendations, members considered existing federal policy documents, industry standards, stakeholder input, implementation feasibility, and expert opinion. The members of each subcommittee agreed on the final standards for their section. A Behavioral Design Working Group was formed from the three subcommittees and consisted of 13 representatives from five federal departments or agencies (Table 2). Decisions about specific behavioral design standards took into consideration the *2011 HHS/GSA Guidelines*, the feasibility of implementation in federal facilities, stakeholder input, expert opinion, and research and practice-based evidence. Promising strategies from the literature were determined by selective examination of 11 review articles, six of which were systematic reviews.

The Project Support Team (consisting of CDC, HHS, and GSA staff) provided logistical assistance to the subcommittees and working group. The Food Service Guidelines Federal Workgroup reviewed and approved the *Food Service Guidelines for Federal Facilities*.

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[§] The Division of Nutrition, Physical Activity, and Obesity is in CDC's National Center for Chronic Disease Prevention and Health Promotion.

Table 1. Federal Departments or Agencies and Operating Divisions on the Food Service Guidelines Federal Workgroup

Federal Departments or Agencies	Operating Divisions
U.S. Department of Health and Human Services (HHS)	• Centers for Disease Control and Prevention (CDC) • U.S. Food and Drug Administration (FDA) • National Institutes of Health (NIH) • Office of the Assistant Secretary of Health (OASH) • Office of the Assistant Secretary for Planning and Evaluation (ASPE) • Program Support Center (PSC)
U.S. General Services Administration (GSA)	• Public Buildings Service (PBS)
U.S. Department of Agriculture (USDA)	• Agricultural Marketing Service (AMS) • Center for Nutrition Policy and Promotion (CNPP) • Food Safety and Inspection Service (FSIS) • Office of the Chief Economist (OCE) • Office of the Secretary (OSEC)
U.S. Department of Commerce (DOC)	• National Oceanic and Atmospheric Administration (NOAA)
U.S. Department of Defense (DOD)	• Defense Health Agency (DHA) • Under Secretary of Defense for Personnel and Readiness (P&R)
U.S. Department of Education (ED)	• Office of Special Education and Rehabilitative Services (OSERS)
U.S. Environmental Protection Agency (EPA)	• Office of Land and Emergency Management (OLEM) • Office of Research and Development (ORD)
U.S. Department of Interior (DOI)	• National Park Service (NPS)
U.S. Department of Veterans Affairs (VA)	• Veterans Canteen Service (VCS) • Veterans Health Administration (VHA)

Table 2. Participation of Federal Departments or Agencies and Operating Divisions on the Subcommittees and Behavioral Design Working Group of the Food Service Guidelines Federal Workgroup

Food and Nutrition Subcommittee (35 representatives)	Facility Efficiency and Procurement Subcommittee (21 representatives)	Food Safety Subcommittee (24 representatives)	Behavioral Design Working Group (13 representatives)
HHS: CDC, FDA, NIH, OASH, PSC	HHS: CDC, ASPE	HHS: CDC, FDA, OASH, PSC	HHS: CDC, NIH, OASH
GSA: PBS	GSA: PBS	GSA: PBS	GSA: PBS
DOD: DHA, P&R	DOC: NOAA	DOD: P&R	DOD: P&R
ED: OSERS	DOD: P&R	DOI: NPS	ED: OSERS
USDA: CNPP, OSEC	DOI: NPS	ED: OSERS	USDA: CNPP, OSEC
VA: VCS, VHS	ED: OSERS	USDA: FSIS, OSEC	-
-	EPA: OLEM, ORD	-	-
-	USDA: AMS, OCE, OSEC	-	-
-	VA: VCS	-	-

Note: The number of representatives refers to individuals, not departments and agencies. Some representatives served on more than one subcommittee or working group.

Request for Information

GSA, in conjunction with HHS, sought public input on implementation of the *2011 HHS/GSA Guidelines* from the vending and food service industry, worksite leadership, public and environmental health organizations, and other parties interested in food service guidelines. To obtain public input, GSA issued a Request for Information (RFI) that remained open from July 30, 2015, through September 30, 2015. The intent of the RFI was to gather insights on the successes and barriers encountered when implementing the *2011 HHS/GSA Guidelines*, the impact of implementing the *2011 HHS/GSA Guidelines* on the workforce and profits, and the ability to source products.

The RFI was disseminated through FedBizOpps, which is used for federal government procurement opportunities. The FedBizOpps link to the RFI was distributed widely through agency communication channels, such as CNPP's MyPlate e-mail delivery system, CDC's chronic disease and community health programs and listservs, VA nutrition managers, and NOAA's partners and stakeholders.

GSA received 32 responses to the RFI. Respondents included 19 nonprofit 501(c)(3) organizations that support health, nutrition, people who are blind, environmental protection, animal welfare, and consumer interests; four food service operators; two state health

departments; two academic institutions; two trade associations; one state Department of Employment, Training and Rehabilitation; one professional society; and one private citizen. Comments covered a wide range of issues, such as facilitators and barriers to implementation, and recommendations for the inclusion of standards for specific topics such as beverages, calories, cereals and grains, cooking methods, dairy products, fruits and vegetables, local and organic foods, meat and poultry, plant-based protein, pricing and promotion, saturated fat, vending, waste reduction, water, and worker justice. Responses were summarized and categorized by the Project Support Team and provided to the leaders of the subcommittees for consideration in their deliberations of standards for inclusion in the *Food Service Guidelines for Federal Facilities*. Comments specific to facilitators and barriers will help inform development of implementation guidance documents, tools, and other resources.

Updates to the Food Service Guidelines

Details about how the *Food Service Guidelines for Federal Facilities* was modified from the *2011 HHS/GSA Guidelines* are described in this section. To summarize:

- The Food and Nutrition standards were updated to align with the *2015–2020 Dietary Guidelines*.[2]
- The Facility Efficiency, Environmental Support, and Community Development standards were updated to align with the March 2015 release of Executive Order 13693,[3] which directed federal agencies to increase efficiency and improve their environmental performance.
- A new section on Food Safety standards that is based on FDA's *Food Code*[4] was added to minimize the risk of foodborne illnesses.
- A new section on Behavioral Design standards was added to facilitate implementation of the Food and Nutrition standards by encouraging consumers to select healthier foods and beverages.

Standards in the *Food Service Guidelines for Federal Facilities* are categorized by two levels of implementation: Standard and Innovative. Standard criteria are considered to be widely achievable within food service and are expected to be implemented. Innovative criteria promote exceptional performance in various areas of food service and are encouraged. Both implementation levels are supported by the scientific literature as being beneficial to health or the environment (or both) or in alignment with existing national policies or guidance.

Food and Nutrition Standards

The Food and Nutrition standards in the *Food Service Guidelines for Federal Facilities* are used to increase the availability of healthier food and beverages in federal food service facilities so that consumers can more readily choose healthier options. In determining the Food and Nutrition standards, subcommittee members began with a review of the *2011 HHS/GSA Guidelines*, and then, as described previously, made decisions to keep, modify, or drop existing standards or develop new standards. Because the update process began before the *2015–2020 Dietary Guidelines*[2] was released, preliminary decisions were made using the *Dietary Guidelines for Americans, 2010,*[5] the *Scientific Report of the 2015 Dietary Guidelines Advisory Subcommittee,*[6] and USDA's Smart Snacks in School[7] nutrition criteria. Once the *2015–2020 Dietary Guidelines* was released, the Food and Nutrition standards in the *Food Service Guidelines for Federal Facilities* were reviewed and modified as needed to be consistent. As part of their decision-making process, subcommittee members also considered FDA's food regulations and other relevant federal laws, regulations, and policies, as well as research and practice-based evidence, industry standards, stakeholder input, and expert opinion.

Classifications of the Food and Nutrition Standards

Prepared Foods

This category includes foods that are fresh, cleaned, cooked, assembled (e.g., salad, sandwich), or otherwise processed and served "ready-to-eat." Prepared foods include those that are made and served on-site or those prepared at a central kitchen and then packaged and distributed to other locations. These foods have a relatively limited shelf life (compared to Packaged Snacks) and can be sold in any food service venue. Examples of prepared foods include hot entrées, side dishes, soups, salads, deli sandwiches, and fresh whole fruits and vegetables.

Packaged Snacks

This category includes processed foods that are packaged in small portions or individual servings, are widely distributed, and have a relatively long shelf life (compared to Prepared Foods). Packaged snacks include food items such as granola bars, chips, crackers, raisins, nuts, and seeds. These foods can be sold in any venue, such as vending machines or "grab-n-go" areas of cafeterias.

Beverages

This category includes drinks such as water, milk, 100% juice, soft drinks, energy drinks, teas, and coffees.

The Food and Nutrition Subcommittee reclassified the Food and Nutrition standards from Concessions and Vending in the *2011 HHS/GSA Guidelines*[1] to Prepared Foods, Packaged Snacks, and Beverages in the updated *Food Service Guidelines for Federal Facilities*. This change was intended to simplify guidance for vendors and make standards for similar products apply across all types of food service venues, regardless of whether the food is sold in a vending machine or served in a cafeteria. Unless otherwise noted, these standards apply across all vending and concessions, including cafeterias, cafés, snack bars, grills, concession stands, sundry shops, micro markets,** and vending machines.

The primary sources used for the Food and Nutrition standards were the *2015–2020 Dietary Guidelines*[2] and the Smart Snacks in School food and nutrition criteria.[7] The *2015–2020 Dietary Guidelines* informs the development of federal food, nutrition, and health policies and programs. Aligning the Food and Nutrition standards with the *2015–2020 Dietary Guidelines* helps to ensure that the *Food Service Guidelines for Federal Facilities* is consistent with the latest science and recommendations and that foods and beverages are available to help people achieve a healthy eating pattern.†† The *2015–2020 Dietary Guidelines* provides five overarching Guidelines that are intended to "encourage healthy eating patterns, recognize that individuals will need to make shifts in their food and beverage choices to achieve a healthy eating pattern, and acknowledge that all segments of our society have a role to play in supporting healthy choices."[2] The standards in the *Food Service Guidelines for Federal Facilities* address all five Guidelines of the *2015–2020 Dietary Guidelines*: (1) Follow a healthy eating pattern across the lifespan; (2) Focus on variety, nutrient density, and amount; (3) Limit calories from added sugars and saturated fats and reduce sodium intake; (4) Shift to healthier food and beverage choices; and (5) Support healthy eating patterns for all.[2] They also focus on the more detailed Key Recommendations in the *2015–2020 Dietary Guidelines*, which provide further guidance on quantitative amounts needed to meet a healthy eating pattern.

The Smart Snacks in School food and nutrition criteria align with USDA's interim final rule for all foods sold outside the National School Lunch Program and School Breakfast Program.[8] The rule was established to make competitive foods consistent with the criteria used in these federal programs[8] and is based on the *Dietary Guidelines for Americans, 2010*.[5] Although the Food and Nutrition Subcommittee decided to adapt the Smart Snacks in School[7] criteria for the Packaged Snacks category of the *Food Service Guidelines for Federal Facilities*, it did not include a limit on total fat because the *2015–2020 Dietary Guidelines* does not have a quantitative Key Recommendation for this nutrient. The *2015–2020 Dietary Guidelines* emphasizes the types and amounts of fats (such as consuming low-fat or non-fat dairy and lean meats, getting less than 10% of total calorie intake from saturated fats, and shifting from solid fats to oils) instead of limiting total fat, which can vary according to individual calorie levels.‡‡ The decision to use Smart Snacks in School criteria was based on the many food and beverage products developed

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** See glossary for definition.
†† The *2015–2020 Dietary Guidelines* provides examples of three healthy eating patterns: the Healthy U.S.-Style Eating Pattern, the Healthy Mediterranean-Style Eating Pattern, and the Healthy Vegetarian Eating Pattern.
‡‡ Although it is not a Key Recommendation, the *2015–2020 Dietary Guidelines* includes a recommendation that total fat consumption should be within the Adequate Micronutrient Distribution Range, without exceeding calorie limits.

for schools that can be used for federal facilities. Packaged snack foods that meet Smart Snacks in School criteria meet the *Food Service Guidelines for Federal Facilities* packaged snack standards.

The rationales for each of the Food and Nutrition standards in the *Food Service Guidelines for Federal Facilities* are shown in Tables 3, 4, and 5. Rationales for standards from the *2011 HHS/GSA Guidelines* that are not included as stand-alone standards in the *Food Service Guidelines for Federal Facilities*, but whose elements are incorporated into other standards, are shown in Table 6.

Table 3. Rationales for Food and Nutrition Standards for Prepared Foods, *Food Service Guidelines for Federal Facilities*

Category	Standards (Implementation Level[a])	Rationales
Fruits and Vegetables	Offer a variety[b] of at least 3 fruit[c] options daily, with no added sugars. Fruit can be fresh, canned,[d] frozen, or dried.[e] **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to broaden the sources (fresh, canned, frozen, or dried) of fruit included and to emphasize that all sources of fruit should not contain added sugars (only canned fruit was mentioned previously). The standard emphasizes offering a variety of fruits by recommending that at least 3 fruit options are offered daily. In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to include fruit, especially whole fruit, in the diet.[2] Whole fruits can be in the following forms: fresh, canned, frozen, or dried. The recommendation of 3 options is based on the wide variety of fruits available in the U.S. marketplace. Providing at least 3 fruit options daily can help people meet the 2 cups of fruit per day recommendations from the Healthy U.S.-Style Eating Pattern at the 2,000-calorie level.[2]
	Offer a variety[b] of at least 3 non-fried vegetable options daily. Vegetables can be fresh, frozen, or canned, and served cooked or raw. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to include an increase from 2 to 3 options and to broaden the sources of vegetables (fresh, canned, or frozen) and serving form (cooked or raw). In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to include "a variety of vegetables from all of the subgroups—dark green, red and orange, legumes (beans and peas), starchy, and other."[2] The recommendation of 3 options is based on the wide variety of vegetables available in the U.S. marketplace. Providing at least 3 vegetable options daily can help people meet the 2½ cups of vegetables per day recommendations from the Healthy U.S.-Style Eating Pattern at the 2,000-calorie level.[2]
	Offer seasonal fruit and vegetables. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to include both fruits and vegetables in one standard. Some fruits and vegetables are available in the U.S. marketplace year-round and others seasonally. Offering fresh fruits and vegetables when in season and at peak flavor is a strategy for providing a variety of these foods while controlling food costs.
Grains	Offer half of total grains as "whole grain-rich" products,[b] daily. **(Standard)**	This standard is new to the *Food Service Guidelines for Federal Facilities*. The intent of this standard is to increase the overall offerings of whole grains. In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to include "grains, at least half of which are whole grains."[2] Providing whole grains can help individuals meet the recommendation of at least 3-ounce equivalents of whole grains for the Healthy U.S.-Style Eating Pattern at the 2,000-calorie level.[2]

Continued

Category	Standards (Implementation Level[a])	Rationales
Grains (continued)	Offer a "whole grain-rich" product[b] as the first (i.e., default[f]) choice. **(Innovative)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to include the term "whole grain-rich" product versus a 100% whole grain product. The intent of this standard is to always offer a whole grain-rich product as the pre-set choice when a grain is offered. In other words, to receive a non-whole grain, a consumer would specifically have to request or select a non-whole grain option. Studies from multiple fields suggest that people are more likely to keep the default selection rather than to change it.[9,10] Therefore, this standard may help people meet the recommendation of at least 3 ounce-equivalents of whole grains from the Healthy U.S.-Style Eating Pattern at the 2,000-calorie level,[2] while still maintaining choice.
Dairy	Offer a variety of low-fat dairy products[b] (or dairy alternatives) daily, such as milk, yogurt, cheese, and fortified soy beverages. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to specify a daily offering of a dairy product and to be consistent with the *2015–2020 Dietary Guidelines*.[2] In the *2015–2020 Dietary Guidelines*[2] a Key Recommendation for a healthy eating pattern is to include "fat-free or low-fat dairy, including milk, yogurt, cheese and/or fortified soy beverages."[2]
	When yogurt is available, offer at least one low-fat plain yogurt. **(Innovative)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to remove the 2% criteria for yogurt to be consistent with the *2015–2020 Dietary Guidelines*[2] and to remove the specifications for caloric sweeteners. The standard as written in the *2011 HHS/GSA Guidelines* was difficult to implement because added sugars were not required to be included on the Nutrition Facts label. Because most low-fat yogurts available in the marketplace are below the Smart Snacks in School sugar limit of ≤35% of weight from total sugars in foods,[7] yogurt was included in the dairy group as a standard criterion and low-fat plain yogurt that does not contain added sugars was added as an innovative criterion. The intent of this standard is to allow customers to choose low-fat yogurt while also limiting their intake of added sugars. Plain yogurt does not contain added sugars. In addition to meeting the *2015–2020 Dietary Guidelines* Key Recommendation for the dairy group, this standard also helps consumers meet the Key Recommendations for a healthy eating pattern, which is to "consume less than 10 percent of calories per day from added sugars" and to "consume less than 10 percent of calories per day from saturated fats.[2]
Protein Foods	Offer a variety[b] of non-fried protein foods, such as seafood,[b] lean meats and poultry,[b] eggs, legumes (beans and peas), nuts, seeds, and soy products, daily. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to broaden the variety of protein foods to align with the *2015–2020 Dietary Guidelines*, which states that a Key Recommendation for a healthy eating pattern is to include "a variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products."[2]

Continued

Category	Standards (Implementation Level[a])	Rationales
Protein Foods (continued)	Offer protein foods from plants such as legumes (beans and peas), nuts, seeds, and soy products at least three times per week. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to specify the type of protein foods from plants and to increase the frequency from twice a week to three times a week. A Key Recommendation in the *2015–2020 Dietary Guidelines*[2] is to consume a "variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products." For balance and flexibility, the Healthy U.S.-Style Eating Pattern includes weekly recommendations for these various subgroups. This standard ensures that plant-based proteins are included among the variety of protein foods available and can help increase the availability of options that meet the Healthy Vegetarian Pattern[2] for those choosing that pattern of eating.
	Offer protein foods from plants, such as legumes (beans and peas), nuts, seeds, and soy products, daily. **(Innovative)**	This standard is new to the *Food Service Guidelines for Federal Facilities*. The intent of this standard is to increase the availability of options that meet the Healthy Vegetarian Pattern[2] for those choosing that pattern of eating. To increase availability, legumes, nuts, seeds, and soy products could be offered at multiple food stations within a cafeteria, including the deli, salad bar, and hot or cold food counters.
	Offer seafood[b] at least two times a week. **(Standard)**	This standard is new to the *Food Service Guidelines for Federal Facilities*. In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to include a variety of protein foods (which includes seafood). The *2015–2020 Dietary Guidelines* recommends at least 8 ounce-equivalents of seafood per week as part of the Healthy U.S.-Style Eating Pattern.[2] Offering seafood twice per week can help people meet this recommendation.
Desserts	When desserts are available, offer 25% of desserts containing ≤200 calories as served. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to suggest a calorie limit (≤200 calories) that one-fourth of desserts offered would meet. The intent of offering some desserts with ≤200 calories is to help people limit added sugars and saturated fats in their diets and to stay within their discretionary calorie limits. Two Key Recommendations for a healthy eating pattern in the *2015–2020 Dietary Guidelines* are to "consume less than 10 percent of calories per day from added sugars" and to "consume less than 10 percent of calories per day from saturated fats."[2] The *2015–2020 Dietary Guidelines* also states, "Most calorie patterns do not have enough calories available after meeting food group needs to consume 10 percent of calories from added sugars and 10 percent of calories from saturated fats and still stay within calorie limits."[2] For a Healthy U.S.-Style Eating Pattern at the 2,000-calorie per day level, a limit of 270 calories is suggested for other uses after food group recommendations are met in their nutrient-dense forms.[2] Thus, the threshold of ≤200 calories was chosen to stay within this limit of 270 calories.[2]

Continued

Category	Standards (Implementation Level[a])	Rationales
Sodium	All meals[b] offered contain ≤800 mg sodium. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to change sodium requirement from ≤900 mg to ≤800 mg per meal.
		In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to "consume less than 2,300 mg of sodium per day" for adults and children aged 14 years or older.[2] The amount of 800 mg sodium was chosen because it is about one-third of the recommended 2,300 mg.
		This standard is similar to USDA's National School Lunch Program and School Breakfast Program target of <740 mg per meal for grades 9 through 12 by 2022.[11] It is also consistent with the standard of ≤800 mg used by two national, nonprofit health organization (American Heart Association[12] and the Partnership for a Healthier America for their Hospital Healthier Food Initiative[13]) and a line of healthier food products from a large food service company (Mindful by Sodexo[14]). The use of this standard by other organizations and companies demonstrates the feasibility of having a sodium standard at this level.
	All entrees[b] offered contain ≤600 mg sodium. **(Standard)**	This standard is new to the *Food Service Guidelines for Federal Facilities*. The intent of this standard is to limit sodium content of entrees to ≤600 mg to meet the *2015–2020 Dietary Guidelines*, Key Recommendation for a healthy eating pattern to include less than 2,300 mg of sodium per day.[2] A typical entrée makes up about two-thirds of a meal. Therefore, the sodium standard for the entrée is about two-thirds of the sodium standard for a meal, or about 533 mg. This value was rounded to ≤600 mg.
		The criterion of 600 mg of sodium per entrée is feasible for implementation. For example, it is consistent with the standards used by the Los Angeles County Department of Public Health (for their Choose Health LA initiative)[15] and a "better-for-you" line of food products from a large food service company (Sensible Selection by Eurest).[16]
	All side items[b] offered contain ≤230 mg sodium. **(Standard)**	This standard is new to the *Food Service Guidelines for Federal Facilities*. The intent of this standard is to limit sodium content of side items to ≤230 mg sodium, as served. In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to include less than 2,300 mg per day of sodium.[2] This sodium standard is consistent with the USDA's final interim rule for all foods sold in school, which is ≤230 mg sodium for sides.[8]
***Trans* Fats**	All foods do not include partially hydrogenated oils. **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*,[1] but minor wording changes were made to simplify the standard. The intent of this standard is to eliminate foods that contain artificial or industrially produced trans fats, rather than naturally occurring *trans* fats that are found in meats and dairy foods in small quantities. Partially hydrogenated oils are the major source of artificial *trans* fats in the food supply.[17]
		The *2015–2020 Dietary Guidelines* states that "Individuals should limit intake of *trans* fats to as low as possible by limiting foods that contain synthetic sources of *trans* fats, such as partially hydrogenated oils in margarines, and by limiting other solid fats."[2] On June 17, 2015, FDA released its final determination that partially hydrogenated oils are not Generally Recognized as Safe.[18]

Continued

Category	Standards (Implementation Level[a])	Rationales
Calorie and Nutrition Labeling	*Provide calorie and nutrition information of standard menu items as required by FDA in Menu Labeling Final Rule: Food Labeling; Nutrition Labeling of Standard Menu Items in Restaurants and Similar Retail Food Establishments.*[f] **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to reference FDA's Menu Labeling Final Rule: Food Labeling; Nutrition Labeling of Standard Menu Items in Restaurants and Similar Retail Food Establishments.[19] The intent of this standard is to provide customers with calorie and nutrition information to help them make informed and healthy choices.
Other Considerations	Limit deep-fried entrée[b] options to no more than one choice per day. **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] The *2015–2020 Dietary Guidelines* recommends consuming foods in their nutrient-dense form without added saturated fats, sugars, and sodium. In addition, a Key Recommendation for a healthy eating pattern is to "consume less than 10 percent of calories per day from saturated fats."[2] Fried foods may contain added saturated fat, and they contribute excess calories that exceed calorie limits for a healthy eating pattern.

[a] Standard implementation criteria are considered to be widely achievable within food service; implementation at this level is expected. Innovative implementation criteria promote exceptional performance in various areas of food service; implementation at this level is encouraged.

[b] See glossary for definition.

[c] Fruits mixed with foods from other food groups such as grain and dairy do not count towards meeting this standard.

[d] Canned fruit may be packed in 100% juice with no added sugars.

[e] Dried fruits are exempted from the sugar criterion for this standard. Dried fruits may contain nutritive sweeteners required for processing and/or palatability.

[f] The rule "applies to restaurants and similar retail food establishments if they are part of a chain of 20 or more locations, doing business under the same name, offering for sale substantially the same menu items and offering for sale restaurant-type foods."[19] Restaurants or similar retail food establishments (including food service operations) with fewer than 20 locations may voluntarily register to be covered by the rule.[19]

Table 4. Rationales for Food and Nutrition Standards for Packaged[a] Snacks, *Food Service Guidelines for Federal Facilities*

Category	Standards (Implementation Level[a])	Rationales
Food and Nutrient Profile[c]	All packaged snacks contain ≤200 mg sodium per package. **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines* for vending. However, minor wording changes were made to match the current classification structure of Packaged Snacks that applies in all food service facilities, such as vending machines, micro markets, and grab-and-go areas of cafeterias, rather than only to vending operations. About 75% of the sodium that Americans consume comes from packaged and restaurant foods,[20] with about 14% coming from snack foods.[21] Given that snacking frequency and the percentage of people who report snacking on a daily basis has continued to increase over the past few decades,[22] sodium reduction in snack foods can help people reduce sodium in their diets.
	All packaged snacks have 0 grams of *trans* fat. **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines* for vending operations. However, minor wording changes were made to match the current classification structure of the Food and Nutrition standards. This standard is part of the Smart Snacks in School[7] food and nutrient criteria. This standard applies to packaged snacks sold in all food service facilities, such as vending machines, micro markets, and grab-and-go areas of cafeterias, rather than only to vending operations. The intent of this standard is to eliminate snack foods that contain industrially produced or artificial *trans* fats. Partially hydrogenated oils are the major source of artificial trans fats in the food supply.[17] On June 17, 2015, FDA released its final determination that partially hydrogenated oils are not Generally Recognized as Safe.[18]
	At least 75% of packaged snacks meet the following food and nutrient standards. **Food Standards:** • Have as the first ingredient a fruit, a vegetable, a dairy product, or a protein food; or • Be a whole grain-rich grain product;[d] or • Be a combination food that contains at least ¼ cup of fruit and/or vegetable. AND (*continued next page*)	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to include USDA's Smart Snacks in School food and nutrient standards[7] and any exemptions noted in USDA's interim final rule for all foods sold in school.[8] In the *Food Service Guidelines for Federal Facilities*, this standard applies to packaged snacks sold in all food service facilities, such as vending machines, micro markets, and grab-and-go areas of cafeterias, rather than only to vending operations. All packaged snacks that qualify for Smart Snacks in School will also meet the standard in the *Food Service Guidelines for Federal Facilities*.

Category	Standards (Implementation Level[a])	Rationales

Food and Nutrient Profile[c] (continued)	**Nutrient Standards:**
	
	• Calorie limit: ≤200 calories.
	• Saturated fat limit: <10% of calories.
	  ○ Exemptions: Reduced-fat cheese and part skim mozzarella; nuts, seeds, and nut/seed butters; and dried fruit with nuts/seeds with no added nutritive sweeteners or fats.
	• Sugar limit: ≤35% of weight from total sugars in foods.
	  ○ Exemptions: Dried/dehydrated whole fruits or vegetables with no added nutritive sweeteners; dried whole fruits or pieces with nutritive sweeteners required for processing and/or palatability; products consisting of only exempt dried fruit with nuts and/or seeds with no added nutritive sweeteners or fats.
	
	(Standard)
		Rationale for 75% of packaged snacks meeting food and nutrient criteria: Establishing food and nutrient standards for packaged snacks can help people meet the *2015–2020 Dietary Guidelines* Key Recommendations for consuming foods in their nutrient-dense form, while limiting saturated fat and total sugars. In addition, for a Healthy U.S.-Style Eating Pattern at the 2,000-calorie per day level, a limit of 270 calories is suggested for other uses after food group recommendations are met in their nutrient-dense forms.[2] Thus, having 75% of packaged snack items within a threshold of ≤200 calories can help consumers stay within the limit of 270 calories.[2] Because the *Food Service Guidelines for Federal Facilities* is not intended to limit choice (but rather to ensure healthier food options are available), only 75% of packaged snacks are expected to meet the food and nutrient standards for packaged snacks.
		
		Rationale for not including Smart Snacks in School criterion for total fat: Because the *2015–2020 Dietary Guidelines* does not have a Key Recommendation for limiting total fat, the nutrient criteria for this standard does not include the Smart Snacks in School[7] criterion that food items must have ≤35% calories from total fat as served.

Calorie Labeling	FOR VENDING: All snack foods[e] sold in vending machines are consistent with FDA's *Vending Machine Final Rule: Food Labeling; Calorie Labeling of Articles of Food in Vending Machines*.[f] **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines* to align with FDA's final rule for vending. The intent of this standard is to provide customers with calorie information to help them make informed and healthful selections from vending machines. The standard is the FDA's *Vending Machine Final Rule: Food Labeling; Calorie Labeling of Articles of Food in Vending Machines*.[23]

[a] Standards are written to apply per package, irrespective of size or number of servings.

[b] Standard implementation criteria are considered to be widely achievable within food service; implementation at this level is expected. Innovative implementation criteria promote exceptional performance in various areas of food service; implementation at this level is encouraged.

[c] The food and nutrient profile standards were adapted from the USDA's Smart Snacks in School nutritional criteria.[7]

[d] See glossary for definition.

[e] This standard applies to both packaged and unpackaged snack foods sold in vending machines.

[f] This rule "requires operators who own or operate 20 or more vending machines to disclose calorie information for food sold from vending machines, subject to certain exemptions as specified in the rule." Vending machine operators with fewer than 20 vending machines may voluntarily register to be covered by the rule.[23]

Table 5. Rationales for Food and Nutrition Standards for Beverages, *Food Service Guidelines for Federal Facilities*

Category	Standards (Implementation Level[a])	Rationales
Beverages	Provide free access to chilled, potable water. **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] However, minor wording changes were made to eliminate the phrase "no charge" because there may be a charge for beverage cups. The intent of this standard is to provide people with free access to drinking water with no added sugars. The *2015–2020 Dietary Guidelines* states that "choosing beverages with no added sugars, such as water, in place of sugar-sweetened beverages" is a way to "shift" added sugar consumption to less than 10% of calories per day.[2]
	When milk and fortified soy beverages are available, offer low-fat beverages with no added sugars. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to remove the 2% criteria for dairy to be consistent with the *2015–2020 Dietary Guidelines*[2] and to add "fortified soy beverages" and the phrase "with no added sugars." Low-fat milk and fortified soy beverages contain important nutrients in addition to calories and can be consumed within recommended amounts in place of sugar-sweetened beverages.[2]
	When juice is available, offer 100% juice with no added sugars.[b] **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*,[1] but minor wording changes were made for clarity. The standard limits added sugars by only allowing juice that is 100% juice. In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to limit added sugars to less than 10% of calories per day. The *2015–2020 Dietary Guidelines* state that, when juices are consumed, they should be 100% juice, without added sugars.[2]
	At least 50% of available beverage choices contain ≤40 calories per 8 fluid ounces[c] (excluding 100% juice, fortified soy beverages, and fat-free or low-fat [1%] milk with no added sugars). **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to more clearly quantify the serving size and clarify exclusions. The standard limits beverages with added sugars. In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to "consume less than 10 percent of calories per day from added sugar."[2] The *2015–2020 Dietary Guidelines* also states that strategies for people to reduce their added sugar intake include choosing beverages with no added sugars, such as water, in place of sugar-sweetened beverages; reducing portions of sugar-sweetened beverages; drinking these beverages less often; and selecting beverages low in added sugars. Low-fat or fat-free milk, fortified soy beverages, or 100% fruit or vegetable juice contain important nutrients in addition to calories and can be consumed within recommended amounts in place of sugar-sweetened beverages.[2]

Continued

Category	Standards (Implementation Level[a])	Rationales
Beverages (continued)	At least 75% of available beverage choices contain ≤40 calories per 8 fluid ounces[c] (excluding 100% juice, fortified soy beverages, and fat-free or low-fat [1%] milk with no added sugar). **(Innovative)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to more clearly quantify the serving size and clarify exclusions. The standard limits beverages with added sugars. In the *2015–2020 Dietary Guidelines*, a Key Recommendation for a healthy eating pattern is to include less than 10% of calories per day from added sugars.[2] The *2015–2020 Dietary Guidelines* also states that strategies for individuals to reduce their added sugar intake include: choosing beverages with no added sugars, such as water, in place of sugar-sweetened beverages, reducing portions of sugar-sweetened beverages, drinking these beverages less often, and selecting beverages low in added sugars. Low-fat or fat-free milk, fortified soy beverages, or 100% fruit or vegetable juice contain important nutrients in addition to calories and can be consumed within recommended amounts in place of sugar-sweetened beverages.[2]

[a] Standard implementation criteria are considered to be widely achievable within food service; implementation at this level is expected. Innovative implementation criteria promote exceptional performance in various areas of food service; implementation at this level is encouraged.

[b] Vegetable juice contains ≤230 mg sodium per serving.

[c] Equivalent measures include ≤60 calories per 12 fluid ounces or ≤100 calories per 20 fluid ounces.

Table 6. Standards from the *2011 HHS/GSA Guidelines* Not Included as Food and Nutrition Standards in the *Food Service Guidelines for Federal Facilities*[a]

Standards from the *2011 HHS/GSA Guidelines*	How Standards Are Addressed in the *Food Service Guidelines for Federal Facilities*
At least 50% of breakfast cereals contain at least 3 g of fiber and less than 10 g total sugars per serving.	Whole grain cereal is covered by the "whole grain-rich" products standard of the *Food Service Guidelines for Federal Facilities*.
Offer as a choice a non-dairy, calcium-fortified beverage (such as soy or almond beverage); these beverages must not provide more sugars than milk (thus be 12 g sugar/8 oz serving or less), provide about the same amount of protein (at least 6 g/8 oz), calcium (250 mg/8 oz), and provide less than 5 g total fat (equivalent to 2% milk).[b]	Soy beverages were added to the dairy beverage standard. Because almond beverages do not meet the nutrient criteria for dairy, they will be subject to guidance in the Beverages category.
If cottage cheese items are offered, only offer low fat (2% or less) or fat-free items.	All types of fat-free and low-fat (1%) cheese are included in the dairy standard.
Vegetable offerings contain ≤230 mg sodium, as served.	The sodium criterion for vegetables is addressed in the sodium standard for side items. Sodium criteria in the *Food Service Guidelines for Federal Facilities* were established for meals, entrees, or sides rather than for individual food groups, as in the *2011 HHS/GSA Guidelines*. These criteria are consistent with current public health initiatives for sodium reduction and are appropriate for feasibility of implementation.

Continued

Standards from the *2011 HHS/GSA Guidelines*	How Standards Are Addressed in the *Food Service Guidelines for Federal Facilities*
Mixed dishes containing vegetables contain ≤480 mg sodium, as served.	The sodium criterion for mixed vegetable dishes is addressed in the sodium standards for entrées. Sodium criteria in the *Food Service Guidelines for Federal Facilities* were established for meals, entrees, or sides rather than for individual food groups, as in the *2011 HHS/GSA Guidelines*. These criteria are consistent with current public health initiatives for sodium reduction and are appropriate for feasibility of implementation.
Offer at least one prepared vegetable option with ≤140 mg sodium as served.[b]	The sodium criterion for vegetables is addressed in the sodium standard for side items. Sodium criteria in the *Food Service Guidelines for Federal Facilities* were established for meals, entrees, or sides rather than for individual food groups, as in the *2011 HHS/GSA Guidelines*. These criteria are consistent with current public health initiatives for sodium reduction and are appropriate for feasibility of implementation.
All cereal, bread, and pasta offerings contain ≤230 mg sodium per serving.	The sodium criterion for cereal, bread, and pasta is addressed in the sodium standard for side items. Sodium criteria in the *Food Service Guidelines for Federal Facilities* were established for meals, entrees, or sides rather than for individual food groups, as in the *2011 HHS/GSA Guidelines*. These criteria are consistent with current public health initiatives for sodium reduction and are appropriate for feasibility of implementation.
If cereal is offered, offer at least one cereal with ≤140 mg sodium per serving.[b]	The sodium criterion for cereal is addressed in the sodium standard for side items. Sodium criteria in the *Food Service Guidelines for Federal Facilities* were established for meals, entrees, or sides rather than for individual food groups, as in the *2011 HHS/GSA Guidelines*. These criteria are consistent with current public health initiatives for sodium reduction and are appropriate for feasibility of implementation.
Processed cheeses contain ≤230 mg sodium per serving.	The sodium criterion for cheeses is addressed in the sodium standards for side items. Sodium criteria in the *Food Service Guidelines for Federal Facilities* were established for meals, entrees, or sides rather than for individual food groups, as in the *2011 HHS/GSA Guidelines*. These criteria are consistent with current public health initiatives for sodium reduction and are appropriate for feasibility of implementation.
Canned or frozen tuna, seafood, and salmon contain <290 mg sodium per serving, and canned meat <480 mg sodium per serving.	The sodium criterion for seafood and canned meat is addressed in the sodium standards for entrées. Sodium criteria in the *Food Service Guidelines for Federal Facilities* were established for meals, entrees, or sides rather than for individual food groups, as in the *2011 HHS/GSA Guidelines*. These criteria are consistent with current public health initiatives for sodium reduction and are appropriate for feasibility of implementation.

[a] These standards are not included as stand-alone standards in the Food Service Guidelines for Federal Facilities, but elements of these standards are incorporated into other standards.

[b] This standard was considered Above Standard in the *2011 HHS/GSA Guidelines*.

Facility Efficiency, Environmental Support, and Community Development Standards

The Facility Efficiency, Environmental Support, and Community Development standards in the *Food Service Guidelines for Federal Facilities* are used to ensure that environmentally responsible practices are conducted in federal food service facilities and that communities are supported through local food sourcing or other certified community development programs. To determine the Facility Efficiency, Environmental Support, and Community Development standards, subcommittee members began with a review of the *2011 HHS/GSA Guidelines*, which is based on Executive Order 13423 (*Strengthening Federal Environmental, Energy, and Transportation Management*),[24] Executive Order 13514 (*Federal Leadership in Environmental, Energy, and Economic Performance*),[25] USDA regulations, and USDA initiatives.[1] Subcommittee members decided to keep, modify, or drop existing standards or to develop new ones as needed. Decisions about the updated standards primarily considered alignment with Executive Order 13693 (*Planning for Federal Sustainability in the Next Decade*),[3] EPA guidance, and EPA and USDA programs and initiatives. Existing federal policy documents, research and practice-based evidence, industry standards, stakeholder input, implementation feasibility, and expert opinion were also considered in the decision-making process.

Executive Order 13693[3] was released in March 2015 and directs federal agencies to increase energy efficiency and improve their environmental performance. The Facility Efficiency, Environmental Support, and Community Development standards on purchasing, food service management, and waste diversion align with two components of this executive order—environmentally responsible acquisition and procurement and waste prevention.

Standards in the *Food Service Guidelines for Federal Facilities* were also aligned with guidance from EPA.[26–30] EPA has released several resources that provide the best examples of how to put the executive orders on which the *Food Service Guidelines for Federal Facilities* is based into action. Decisions were made, in part, on whether resources existed to help food service contractors implement specific aspects of Executive Order 13693.

Other standards in the *Food Service Guidelines for Federal Facilities* were updated to align with USDA programs and initiatives that support community development and natural resource conservation. USDA supports local and regional food systems on the basis of empirical evidence that local food systems in a community can increase employment and income in that community.[31] USDA's organic regulations support natural resource conservation by requiring the maintenance or improvement of natural resources, including soil, water, and wildlife.[32,33] Although many of the practices employed in organic production are not exclusive to organic systems, the certification system provides third-party verification that products were produced using organic methods.

The Facility Efficiency, Environmental Support, and Community Development standards apply to concessions (such as cafeterias, snack bars, and grills) unless noted as applying to vending. The rationales for inclusion or modification of Facility Efficiency, Environmental Support, and Community Development standards in the *Food Service Guidelines for Federal Facilities* are shown in Table 7.

Rationales for standards from the *2011 HHS/GSA Guidelines* that are not included as stand-alone standards in the *Food Service Guidelines for Federal Facilities*, but whose elements are incorporated into other standards, are shown in Table 8.

Table 7. Rationales for Facility Efficiency, Environmental Support, and Community Development Standards, *Food Service Guidelines for Federal Facilities*

Category	Standards (Implementation Level[a])	Rationales
	Institute accurate forecasting[b] and just-in-time ordering concepts.[c] **(Standard)**	This is a new standard for the *Food Service Guidelines in Federal Facilities*. The use of forecasting and just-in-time ordering practices could result in less food waste, which would help agencies meet waste provisions in Executive Order 13693. This executive order directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items, and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] This standard is also consistent with guidance provided by EPA in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*.[26] This guide states that food service operators can "adjust food purchasing policies to reduce excess food purchasing" and suggests using just-in-time software to reduce unnecessary purchasing.[26]
Purchasing	Provide materials for single-service items (e.g., bottled beverage containers, trays, flatware, plates, bowls) that are compostable and/or made from biobased[b,d] products. **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] The word "and" was changed to "and/or" to clarify that items that are either compostable, biobased, or both could be included in this standard. "Bottled beverage containers" was also added to the list of examples. This standard is in alignment with Executive Order 13693, which directs agencies to "promote sustainable acquisition and procurement" by granting purchase preference for BioPreferred and biobased products designated by USDA.[3] According to the *Implementing Instructions for Executive Order 13693: Planning for Federal Sustainability in the Next Decade*, "USDA is responsible for establishing and updating a list of covered product categories and biobased requirements for each category."[34] This standard is consistent with guidance provided by EPA in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*,[26] which encourages the use of environmentally friendly packaging.

Continued

Category	Standards (Implementation Level[a])	Rationales
Purchasing (continued)	Use bulk-serve condiments instead of single-serve packs, while following necessary food safety procedures.[e] **(Standard)**	This is a new standard for the Food Service Guidelines in Federal Facilities. This standard aligns with Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] Bulk-serve condiments produce less waste and thus have less environmental impact than single-serve packages. This standard is also consistent with guidance provided by EPA in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*,[26] which encourages bulk purchasing.
	When purchasing packaged products, give preference to products in recyclable, compostable, or biobased[b,d] packaging. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to include "biobased" packaging to be consistent with Executive Order 13693. This executive order directs agencies to "promote sustainable acquisition and procurement" by granting purchase preference for BioPreferred and biobased products designated by USDA.[3] Use of packaging that is recyclable or compostable can divert waste, another aspect of Executive Order 13693. According to the *Implementing Instructions for Executive Order 13693: Planning for Federal Sustainability in the Next Decade*, "USDA is responsible for establishing and updating a list of covered product categories and biobased requirements for each category."[34] This standard is consistent with guidance provided by EPA in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*,[26] which encourages the use of packaging that is compostable or recyclable.
	Use cleaning products and services that are environmentally preferable,[b,f] while following necessary food safety procedures. **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to include the term "environmentally preferable" instead of "green cleaning practices." This language is consistent with Executive Order 13693, which directs agencies to "promote sustainable acquisition and procurement" by "purchasing environmentally preferable products or services" that meet or exceed EPA standards or specifications or meet other voluntary standards consistent with federal law when no EPA standards exist.[3]

Continued

Category	Standards (Implementation Level[a])	Rationales
Purchasing (continued)	Offer at least 25% of foods and beverages as locally sourced,[b,g] certified organic,[b,h] produced with another certified community-development or environmentally beneficial practice, or any combination thereof.[i] **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] However, the phrase "documented sustainably grown (e.g., integrated pest management, pesticide free, other labeling programs)"[1] was changed to "certified community-development or environmentally beneficial practice." The new language allows procurement officials to suggest innovative solutions, as new certification schemes may develop in a rapidly evolving market. **Rationale for supporting local food sourcing:** Support for local and regional food systems is one of USDA's four pillars of agriculture and rural economic development.[35] Farmers often earn a higher share of the food dollar in local and regional markets, and in turn, this money gets recirculated within the community, resulting in greater economic benefits.[36] When regional supply chains are strengthened, economic opportunities improve for small businesses, jobs are created, and communities have improved access to healthier foods.[37] **Rationale for supporting organic agriculture:** This standard aligns with USDA priorities and initiatives [35,38] Organic agriculture addresses natural resource conservation, including impacts on soil, water, and wildlife.[32] USDA's national regulatory program defines organic agriculture as a production system established to respond to site-specific conditions by integrating "cultural, biological and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity."[39] USDA requires organic farmers and ranchers to use practices that maintain or improve wetlands, woodlands, and wildlife, minimize soil erosion, and accommodate an animal's natural nutritional and behavioral requirements.[33] Agricultural practices that use most conventional pesticides, fertilizers made with sewer sludge or synthetic ingredients, bioengineering, or ionizing radiation are not permissible for foods to be considered organically produced.[33] Similarly, meat, eggs, or dairy products cannot come from food-producing animals that have been given antibiotics or growth hormones.[33] According to CDC, administering antibiotics to food-producing animals contributes to the development of antibiotic-resistant bacteria in those animals. People who consume meat, eggs, or dairy products from these animals can develop antibiotic-resistant infections.[40]
	Offer at least 35% of foods and beverages as locally sourced,[b,g] certified organic,[b,h] produced with another certified community-development or environmentally beneficial practice, or any combination thereof.[i] **(Innovative)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] However, the phrase "documented sustainably grown (e.g., integrated pest management, pesticide free, other labeling programs)"[1] was changed to "certified community-development or environmentally beneficial practice." See the earlier "Offer at least 25% of foods and beverages…" standard for the rationale for this change and for supporting local food sourcing and organic agriculture.

Continued

Category	Standards (Implementation Level[a])	Rationales
	FOR VENDING: Offer at least 10% of foods and beverages as locally sourced,[b,g] certified organic,[b,h] produced with another certified community-development or environmentally beneficial practice, or any combination thereof.[i] **(Innovative)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] However, the phrase "documented sustainably grown (e.g., integrated pest management, pesticide free, other labeling programs)"[1] was changed to "certified community-development or environmentally beneficial practice." See the earlier "Offer at least 25% of foods and beverages…" standard for the rationale for this change and for supporting local food sourcing and organic agriculture. The standard in the *2011 HHS/GSA Guidelines*[1] did not suggest a percentage, whereas this standard states "offer 10%." The addition of this percentage will make it easier to audit and measure compliance with this standard. The percentage is lower than that for other venues because of the recognition that the supplies of local and organic products are limited for vending machines.
Purchasing (continued)	When seafood options are available, offer seafood procured from fisheries and aquaculture operations that are responsibly managed, sustainable, and healthy. Purchasing U.S. wild-captured and farmed seafood, which adhere to some of the most strict sustainability practices in the world, is one way to ensure compliance with this standard.[j] **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*,[1] but was updated for clarity and to include a suggestion for how the standard may be achieved. The NOAA FishWatch Program defines sustainable seafood as "catching or farming seafood responsibly, with consideration for the long-term health of the environment and the livelihoods of the people that depend upon the environment." Verifying the health and sustainability of U.S. and international fisheries is not always simple. Domestic fisheries and aquaculture are managed and regulated by state and federal agencies under legally established fisheries management plans and a host of environmental and food safety laws. Seafood caught or farmed in U.S. waters or in the United States has been produced responsibly or sustainably. International fisheries are managed under sovereign laws and international treaties. Guidance on how to make sustainable seafood choices is found on the NOAA FishWatch website at http://www.fishwatch.gov/.
Food Service Management and Consumer Engagement	Promote and incentivize the use of reusable beverage containers, while following necessary food safety procedures.[k] **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] However, a footnote was added to ensure that food safety procedures are taken into account when reusable serving ware is used. The use of reusable beverage containers can decrease the number of beverage containers in the waste stream. This standard aligns with Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] This standard is also consistent with guidance provided by EPA in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*, which encourages reusable service ware rather than disposable service ware.[26]

Continued

Category	Standards (Implementation Level[a])	Rationales
Food Service Management and Consumer Engagement (continued)	Use or promote the use of reusable service ware such as plates, utensils, bags, and other service items, while following necessary food safety procedures.[k] **(Innovative)**	This is a new standard for the *Food Service Guidelines in Federal Facilities*. The use of reusable service ware can decrease the number of paper and plastic products in the waste stream. This standard aligns with Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] This standard is also consistent with guidance provided by EPA in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*, which encourages reusable service ware rather than disposable service ware.[26]
	Utilize cleaning practices and equipment operations that conserve resources, such as water and energy. This could include using ENERGY STAR[i] and WaterSense products and services.[m] **(Standard)**	This is a new standard for the *Food Service Guidelines in Federal Facilities*. This standard aligns with Executive Order 13693, which directs agencies to "promote sustainable acquisition and procurement" by granting purchase preference for energy and water efficient products and services, such as those designated or certified by the ENERGY STAR program, Federal Energy Management Program, or WaterSense program.[3]
	Use integrated pest management practices, green pest control alternatives, and a routine cleaning schedule, while following necessary food safety procedures.[n] **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to include the phrase "and a routine cleaning schedule" to reflect the importance of routine cleaning for pest control management. As stated in guidance from GSA, "The practice of IPM [integrated pest management] has been mandated on federal property since 1996 (7 USC 136r-1)."[41] In addition, routine cleaning as a method of pest control and prevention may result in use of fewer pesticides, which is one purpose of integrated pest management.[42,43]
	When applicable, label food products at the point of purchase as locally sourced,[b,g] certified organic,[b,h] or produced with another certified community-development or environmentally beneficial practice. **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] However, the phrase "documented sustainably grown" was changed to "produced with another certified community-development or environmentally beneficial practice." See the earlier "Offer at least 25% of foods and beverages…" standard for the rationale for this change. Labeling food at the point of purchase supports transparency and consumer choice.

Continued

Category	Standards (Implementation Level[a])	Rationales
Food Service Management and Consumer Engagement (continued)	Provide information to customers on food products that are locally sourced,[b,g] certified organic,[b,h] or produced with another certified community-development or environmentally beneficial practice. **(Innovative)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] However, the phrase "documented sustainably grown" was changed to "produced with another certified community-development or environmentally beneficial practice." See the earlier "Offer at least 25% of foods and beverages…" standard for the rationale for this change. Providing information about the source of food or the agricultural practices used to produce food supports transparency and may address increasing consumer interest in where food comes from.[37]
	FOR VENDING: Provide information to customers on food products that are locally sourced,[b,g] certified organic,[b,h] or produced with another certified community-development or environmentally beneficial practice. **(Innovative)**	This standard was included in the *2011 HHS/GSA Guidelines*.[1] However, the phrase "documented sustainably grown" was changed to "produced with another certified community-development or environmentally beneficial practice." See the earlier "Offer at least 25% of foods and beverages…" standard for the rationale for this change. Providing information about the source of food or the agricultural practices used to produce food supports transparency and may address increasing consumer interest in where food comes from.[37]
	Partner with a farmers' market that operates on-site.[o] **(Innovative)**	This is a new standard for the *Food Service Guidelines for Federal Facilities*. Partnering with a farmers' market operating on-site is one way to feature and provide access to local foods. This standard is in line with guidance from USDA and GSA in their publication, *Opening a Farmers Market on Federal Property: A Guide for Market Operators and Building Managers*.[44] See the earlier "Offer at least 25% of foods and beverages…" standard for the rationale for supporting local food.
	FOR VENDING: If purchasing new vending machines, purchase ENERGY STAR certified machines or those that meet ENERGY STAR criteria.[p] **(Standard)**	This standard was included in the *2011 HHS/GSA Guidelines*,[1] but was moved from the "Above Standard" to "Standard" criteria level. This standard aligns with Executive Order 13693, which directs agencies to "promote sustainable acquisition and procurement" by granting purchase preference for energy and water efficient products, such as those certified by the ENERGY STAR program.[45]
	FOR VENDING: Retrofit existing vending machines (refrigerated and non-refrigerated) to use energy conservation methods such as LED lighting, occupancy sensors, or shut down or set-back modes. **(Innovative)**	This standard was included in the *2011 HHS/GSA Guidelines*,[1] but minor wording changes were made for clarity and to include shut down or set-back technology. Retrofitting existing machines to use energy conservation methods such as LED lighting, occupancy sensors, shut down or set-back modes may allow these machines to meet ENERGY STAR criteria.[45] The implementation level is the same ("Above Standard" in 2011 and renamed to "Innovative" in 2016).

Continued

Category	Standards (Implementation Level[a])	Rationales
Waste Diversion	Participate in and implement waste diversion programs (waste reduction, recycling and, where feasible, composting) for employees in the kitchen, break rooms, and administrative areas (i.e., back-of-house operations). **(Standard)**	This standard is updated from the *2011 HHS/GSA Guidelines*[1] to specify separate waste reduction, recycling, and composting programs for employees and consumers. This separation was made because the methods to encourage participation in these programs and the materials used to implement them may be different for the two groups. This standard aligns with Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] EPA guidance in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants* suggests that food service operators may be able to reduce waste by composting food waste and other materials.[26] Composting is one component of EPA's Food Recovery Hierarchy,[27] a model "that prioritizes actions organizations can take to prevent and divert wasted food." EPA also states that, "Even when all actions have been taken to use your wasted food, certain inedible parts will still remain and can be turned into compost to feed and nourish the soil. Like yard waste, food waste scraps can also be composted."[28]
	Participate in and implement waste diversion programs (waste reduction, recycling and, where feasible, composting) in areas that a consumer will be exposed to during their visit to the food service operation (i.e., front-of-house operations). **(Standard)**	This standard was updated from the *2011 HHS/GSA Guidelines*[1] to specify separate waste reduction, recycling, and composting programs for employees and consumers. This separation was made because the methods to encourage participation in these programs and the materials used to implement them may be different for the two groups. This standard aligns with Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] EPA guidance in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants* suggests that food service operators may be able to reduce waste by composting food waste and other materials.[26] Composting is one component of EPA's Food Recovery Hierarchy,[27] a model "that prioritizes actions organizations can take to prevent and divert wasted food." EPA also states that, "Even when all actions have been taken to use your wasted food, certain inedible parts will still remain and can be turned into compost to feed and nourish the soil. Like yard waste, food waste scraps can also be composted."[28]

Continued

Category	Standards (Implementation Level[a])	Rationales
Waste Diversion (continued)	Implement systems to monitor relationship between waste and food procurement, including the development of goals for waste reduction and quarterly to annual reporting of waste reduction and waste diversion benchmarks.[q] **(Standard)**	This is a new standard for the *Food Service Guidelines in Federal Facilities*. This standard aligns with Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] EPA guidance suggests that waste audits are an important component of effective waste reduction strategies. Learning about what flows through the food service operation by measuring the amount, type, and reason for the generation of wasted food allows for the development of effective strategies to reduce food waste.[26,30] EPA guidance also directs food service operators to "share your results with your colleagues and facility management to identify ways to reduce and divert wasted food."[30]
	Re-purpose excess food for future meal preparation, while following necessary food safety procedures.[r] **(Standard)**	This is a new standard for the *Food Service Guidelines in Federal Facilities*. The standard aligns with the waste prevention aspects of Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] EPA guidance in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*[26] suggests that using leftovers in other meals can save money and reduce waste and can be done successfully by flexibility in menu planning.
	Train staff on methods for reducing food waste. **(Standard)**	This is a new standard for the *Food Service Guidelines in Federal Facilities*. The standard aligns with the waste prevention aspects of Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] EPA guidance in *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants* emphasizes the importance of staff training in implementing waste diversion strategies in food service operations. This document states that, "While individual managers can influence the amount of food wasted, the food service staff is ultimately responsible for day-to-day food storage, organization, preparation, and disposal. Continuous training and acknowledgement of staff is crucial to ensure proper training of all employees, especially if there is high turnover."[26]

Continued

Category	Standards (Implementation Level[a])	Rationales
Waste Diversion (continued)	Donate edible surplus food for human consumption where possible, while following necessary food safety procedures.[s] **(Innovative)**	This is a new standard for the *Food Service Guidelines in Federal Facilities*. The standard aligns with the waste prevention aspects of Executive Order 13693, which directs agencies to divert at least 50% of nonhazardous solid waste each year, including food and compostable items and to pursue "opportunities for net-zero waste or additional diversion opportunities."[3] This standard also aligns with EPA guidance. Feeding hungry people is one component of EPA's Food Recovery Hierarchy, a model "that prioritizes actions organizations can take to prevent and divert wasted food."[27] EPA guidance directs food service operators to donate unspoiled, edible food that would otherwise be thrown away to organizations that feed hungry people.[29] Similar guidance for donating food is also in EPA's *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*[26] and in guidance provided by USDA.[46]

[a] Standard implementation criteria are considered to be widely achievable within food service; implementation at this level is expected. Innovative implementation criteria promote exceptional performance in various areas of food service; implementation at this level is encouraged.

[b] See glossary for definition.

[c] For information on forecasting, just-in-time ordering, and other food waste reduction strategies, see EPA's *Reducing Wasted Food & Packaging: A Guide for Food services and Restaurants* at http://www.epa.gov/sites/production/files/2015-08/documents/reducing_wasted_food_pkg_tool.pdf.

[d] See USDA's BioPreferred Program website: https://www.biopreferred.gov/BioPreferred/faces/pages/AboutBioPreferred.xhtml. USDA's BioPreferred Program lists products that are both biobased and compostable.

[e] See the FDA *Food Code* for considerations when using bulk serve condiments, Sections: 3-306.11, 3-306.12, 3-306.13, 3-306.14, and 3-307.11.

[f] For information on environmentally preferable products and services, see EPA's About the Environmentally Preferable Purchasing Program website at https://www.epa.gov/greenerproducts/about-environmentally-preferable-purchasing-program; EPA's Sustainable Marketplace: Greener Products and Services website at https://www.epa.gov/greenerproducts; EPA's Learn About the Safer Choice Label website at http://www.epa.gov/saferchoice/learn-about-safer-choice-label; and GSA's Sustainable Facilities Tool website at https://sftool.gov/. For guidance on safe cleaning practices, see the FDA *Food Code*, Chapters and Subparts: 4-5, 4-6, and 4-7.

[g] Based on the definition provided in the Food, Conservation, and Energy Act of 2008: Conference Report to Accompany H.R. 2419, locally sourced refers to an agricultural product that is transported less than 400 miles from its origin or is distributed within the same state as it was produced.[47] For information on local food, see USDA's Local and Regional Food Sector website at https://www.ams.usda.gov/services/local-regional/food-sector.

[h] For information on organic production, see the USDA Organic website at http://www.usda.gov/organic and USDA's National Organic Program website at http://www.ams.usda.gov/about-ams/programs-offices/national-organic-program.

[i] Although locally sourced, certified organic, and produced with another certified community-development or environmentally beneficial practice may not be mutually exclusive, the intent of this standard is to ensure that the noted percentage (10%, 25%, or 35%) of the product line is met by any combination of these criteria.

[j] The National Oceanic and Atmospheric Administration (NOAA) FishWatch Program defines sustainable seafood as "catching or farming seafood responsibly, with consideration for the long-term health of the environment and the livelihoods of the people that depend upon the environment." Verifying the health and sustainability of U.S. and international fisheries is not always simple. Domestic fisheries and aquaculture are managed and regulated by federal and state agencies under legally established fisheries management plans and a host of environmental and food safety laws. Seafood caught or farmed in U.S. waters or in the United States has been produced responsibly and sustainably. International fisheries are managed under sovereign laws and international treaties. Guidance on how to make sustainable seafood choices is found on the NOAA FishWatch website at http://www.fishwatch.gov/.

[k] See the FDA *Food Code* for guidance on safely using reusable containers: Sections: 3-304.16, 3-304.17, 4-1, and 4-2.

[l] For more information about ENERGY STAR, see https://www.energystar.gov/.

[m] For more information about WaterSense, see https://www.epa.gov/watersense?platform=hootsuite.

[n] For guidance on pest control, see the FDA *Food Code*, Section 6-501.111.

[o] For information on farmers' markets on federal property, see the USDA and GSA publication *Opening a Farmers Market on Federal Property: A Guide for Market Operators and Building Managers* at http://www.gsa.gov/portal/mediald/226767/fileName/GSA_USDA_Farmers_Markets.action.

[p] For more information on ENERGY STAR vending machines, see https://www.energystar.gov/products/other/vending_machines and https://www.energystar.gov/products/other/vending_machines/key_product_criteria.

[q] Reporting requirements may vary by agency.

[r] For information on re-purposing excess food, see EPA's *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants* at http://www.epa.gov/sites/production/files/2015-08/documents/reducing_wasted_food_pkg_tool.pdf.

[s] For information on donating surplus food, including food safety considerations, see EPA's Reduce Wasted Food By Feeding Hungry People website at https://www.epa.gov/sustainable-management-food/reduce-wasted-food-feeding-hungry-people and *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants* at http://www.epa.gov/sites/production/files/2015-08/documents/reducing_wasted_food_pkg_tool.pdf and USDA's food donation website at http://www.usda.gov/oce/foodwaste/resources/donations.htm.

Table 8. Standards from the *2011 HHS/GSA Guidelines* Not Included as Facility Efficiency, Environmental Support, and Community Development Standards in the *Food Service Guidelines for Federal Facilities*a

Standards from the *2011 HHS/GSA Guidelines*	How Standards Are Addressed in the *Food Service Guidelines for Federal Facilities*
Offer seasonal varieties of fruits and vegetables.	The concepts addressed in this standard were moved to the Food and Nutrition section. Variety is addressed in the following standards: ● Offer a variety of at least 3 fruit options daily, with no added sugars. Fruit can be fresh, canned, frozen, or dried. ● Offer a variety of at least 3 vegetable options daily. Vegetables can be fresh, frozen, or canned, and served cooked or raw. The concept of seasonal is addressed in the following standard: ● Offer seasonal fruits and vegetables.
Promote the use of tap water over bottled water.	This standard is addressed in the Food and Nutrition section in the following standard: ● Provide free access to chilled, potable water. This standard is also intended to promote reusable containers over single-service containers. This concept is addressed in the following standard: ● Promote and incentivize the use of reusable beverage containers, while following necessary food safety procedures.
Offer drinking water, preferably chilled tap.	This standard is addressed in the Food and Nutrition section in the following standard: ● Provide free access to chilled, potable water.
If composting is available, bottled water must be offered in compostable bottles.	This standard was deleted because it was repetitive with the standard related to single-service items. The phrase "bottled beverage containers" was specifically added to the updated standard: ● Provide materials for single-service items (e.g., bottled beverage containers, trays, flatware, plates, bowls) that are compostable and/or made from biobased products.
Offer Certified Organic or documented sustainably or locally produced milk and milk products.	The *2011 HHS/GSA Guidelines*[1] specified a separate standard for milk and milk products, and these items are now considered as part of the overall product line and are included under the standards suggesting that a specific percentage of foods and beverages be locally sourced, certified organic, produced with another certified community-development or environmentally beneficial practice, or any combination thereof. This change was made because the supply of organic and local products can vary depending on geographic area, season, and market development. This standard now allows for flexibility in sourcing to accommodate market constraints specific to particular regions and time periods.

Continued

Standards from the *2011 HHS/GSA Guidelines*	How Standards Are Addressed in the *Food Service Guidelines for Federal Facilities*
Offer Certified Organic or documented sustainably or locally produced eggs and meat (e.g., grass fed, free-range, pasture raised, grass finished, humanely raised and handled).	The *2011 HHS/GSA Guidelines*[1] specified a separate standard for eggs and meat, and these products are now considered as part of the overall product line and would be included under the standards suggesting that a specific percentage of foods and beverages be locally sourced, certified organic, produced with another certified community-development or environmentally beneficial practice, or any combination thereof. This change was made because the supply of organic and local products can vary depending on geographic area, season, and market development. This standard now allows for flexibility in sourcing in order to accommodate market constraints specific to particular regions and time periods.

[a] These standards are not included as stand-alone standards in the *Food Service Guidelines for Federal Facilities*, but elements of these standards are incorporated into other standards.

Food Safety Standards

In the updated *Food Service Guidelines for Federal Facilities*, the topic of food safety was introduced as a third component to safeguard employees, visitors, and institutionalized persons at federal facilities against foodborne illnesses. Foodborne illness in the United States is recognized by FDA as "a major cause of personal distress, preventable illness and death, and avoidable economic burden."[4] Foodborne pathogens account for nearly 48 million illnesses, 128,000 hospitalizations, and 3,000 deaths in the United States each year.[48,49] The estimated annual costs of foodborne illnesses ranges from $10 billion to $83 billion and includes costs for medical care, reduced productivity, and pain and suffering.[4]

The 2013 *Food Code*[4] was the primary source for the Food Safety standards in the *Food Service Guidelines for Federal Facilities*. The *Food Code* is designed to help reduce foodborne illnesses by providing a model system of retail food regulation that can be used by food safety control jurisdictions at all levels of government.[4] People working in industry, as well as government, recognize that following science-based standards contained in the *Food Code* are critical to controlling foodborne illnesses hazards and preventing foodborne illness and injury. For decades, the *Food Code* and its precursors have provided the basis for the inspection and oversight of food safety practices in contracted food service operations in federal facilities.[4]

The primary Food Safety standard states that contractors operating in federal facilities are expected to adhere to the most recently published *Food Code* and its Supplements (Table 9). Other standards were developed to identify managerial practices, employee behaviors, and food preparation practices that go beyond what is described in the *Food Code* and that, when implemented, may further reduce the risk of foodborne illness in food service operations. These additional standards are included at the Innovative level of implementation, except for the one for certified food protection managers, which is included at the Standard level.

The Food Safety standards included in the *Food Service Guidelines for Federal Facilities* apply to concessions (such as cafeterias, cafés, and grills) where food is prepared and sold or served. They also apply to merchandising and vending operations that offer foods that require temperature control for safety. The standards are not intended to apply to operations that offer only prepackaged foods that do not require temperature control for safety, as the *Food Code* is not intended to apply to these operations.

The Food Safety standards and their rationales for inclusion are shown in Table 9. Because the *Food Code* is periodically updated, the overarching standard is written so that the most recent version of the *Food Code* is followed.

Table 9. Rationales for Food Safety Standards, *Food Service Guidelines for Federal Facilities*

Category	Standards (Implementation Level[a])	Rationales
	Follow the guidance and standards in the most recently published *Food Code*[4] (and all Supplements) relating to food safety procedures and practices. **(Standard)**	The 2013 *Food Code*[4] establishes guidance and recommendations for specific preventive controls to prevent foodborne illness and injury. The standards in the *Food Code* address topics such as management and personnel practices; safe sourcing, preparation, storage, display, and service of foods; and proper design, maintenance, and use of equipment, utensils, and facilities in the food establishment. When a food establishment implements the preventive controls specified in the *Food Code*, the risk of foodborne illness and injury to consumers is significantly reduced.[4]
Food Safety Management System / Active Managerial Control	Establish a comprehensive written food safety plan that seeks to achieve active managerial control of foodborne illness risk factors, including but not limited to a) improper holding temperatures; b) inadequate cooking, such as undercooking raw shell eggs; c) contaminated equipment; d) food from unsafe sources; and e) poor personal hygiene. The plan could describe the food safety procedures for the particular food service facility, including how employees are to be trained on those procedures and the methods by which proper implementation of those procedures are routinely monitored. **(Innovative)**	A comprehensive written food safety plan that describes the operating procedures that employees are to follow and how these procedures will be monitored and verified can be a valuable tool for achieving sustained control of risk factors for foodborne illnesses. A written food safety plan also supports effective training of employees on food safety and the appropriate corrective actions to be taken when deviations from standard procedures are observed.[4] Annex 4[b] of the 2013 *Food Code* states that, "Active managerial control (AMC) through the use of HACCP [Hazard Analysis Critical Control Point] principles is achieved by identifying the food safety hazards attributed to products, determining the necessary steps that will control the identified hazards, and implementing on-going practices or procedures that will ensure safe food."[4] The *Food Code* also states that, "Epidemiological outbreak data repeatedly identify five major risk factors related to employee behaviors and preparation practices in retail and food service establishments as contributing to foodborne illness: improper holding temperatures; inadequate cooking, such as undercooking raw shell eggs; contaminated equipment; food from unsafe sources; and poor personal hygiene."[4] Therefore this standard states that the written food safety plan should address the control of these risk factors.
Undercooked Meat, Poultry, and Egg Products	Do not serve raw or undercooked meat, poultry, or egg products, even upon request of the customer. **(Innovative)**	The 2013 *Food Code* sets minimum time and temperature parameters for the cooking of raw animal foods. Serving animal foods that have not been cooked to the minimum specified internal temperature is a significant foodborne illness risk factor. Numerous outbreaks that involve the serving of undercooked meat, poultry, and egg products have been identified over the years.[4,50] Although the *Food Code* contains an exception that allows for the serving of raw or undercooked animal foods at the request of a customer and establishes requirements for advising the consumer of the associated increased risk, consumers are at the lowest risk of foodborne illness when establishments make it a practice to only serve animal foods that have been cooked to the minimum temperatures specified in the *Food Code*.[4]

Continued

Category	Standards (Implementation Level[a])	Rationales
Practices to Control *Listeria monocytogenes* in Ready-to-Eat Products	Develop and implement written sanitation and temperature control programs that target the control of *Listeria monocytogenes* in ready-to-eat products. Include documentation of: • Cleaning frequencies for equipment, utensils, and non-food contact surfaces (e.g., walls, floors, ceilings) • Temperature control in coolers, deli cases, and refrigerators. **(Innovative)**	The 2013 *Food Code* establishes parameters for the frequency at which equipment and utensils are to be cleaned and sanitized and requires that refrigerated foods that require temperature control for safety be stored and displayed at 41°F or below. These parameters are effective in helping to control *Listeria monocytogenes* (*Lm*), which is a bacterium that causes the foodborne illness listeriosis[51] and other foodborne pathogens.[4] The criteria for the innovative implementation level states that operators should develop written programs and document sanitizing frequencies and temperature control to demonstrate better *Lm* control. *Lm* can be transferred from the environment (e.g., deli cases, slicers, utensils), employees, or raw food products to ready-to-eat products, including meat and poultry products. Once it has contaminated a food product, *Lm* can grow at refrigeration temperatures (as low as 34°F/1°C) where other pathogens may not. Therefore, maintaining sanitation and refrigeration temperatures and marking dates on products will help keep *Lm* from contaminating ready-to-eat products and causing foodborne illness.[51]
Sick Employees	Develop and implement a written employee health policy that outlines: • How employees are trained on the reporting of symptoms, diagnoses, and activities that are associated with the transmission of foodborne illness from food workers and how such training is documented. • The policies for excluding, restricting, and reinstating employees who have or report symptoms, diagnoses, or activities as described in the *Food Code*. **(Innovative)**	Chapter 2 of the 2013 *Food Code* establishes the responsibilities of the facility management to prevent food employees who are sick from transmitting viruses and bacteria into food. Excluding or restricting food employees who may be capable of transmitting certain foodborne pathogens from working with food, along with ensuring proper hand washing and limiting bare hand contact with ready-to-eat foods, is a critical intervention in preventing foodborne illness outbreaks from occurring or expanding.[4] Having a documented employee health policy that clearly describes what is required of facility management and staff with regard to employee health can help to ensure that all personnel are appropriately trained in this area. A written employee health policy that is consistent with the FDA *Food Code* and the recommendations in the FDA *Employee Health and Personal Hygiene Handbook*[52] can limit confusion and help to ensure that the Person in Charge will understand the requirements for restricting, excluding, and reinstating food employees.[4]

Continued

Category	Standards (Implementation Level[a])	Rationales
Certified Food Protection Managers	Have at least one management/supervisory employee (not necessarily the Person in Charge) who is a Certified Food Protection Manager present during all hours of operation. **(Standard)**	Ensuring that risk factors for foodborne illness are routinely controlled and that situations that create a hazard are appropriately corrected requires that facility management understand food safety principles. FDA's 2009 Retail Risk Factor Study demonstrated that the presence of a Certified Food Protection Manager is positively correlated with improved overall compliance with key *Food Code* requirements in certain establishment types, including full-service restaurants and delis.[53] The *Food Code* has long recognized that being a Certified Food Protection Manager is an acceptable means of satisfying the *Food Code* requirement that the Person in Charge be capable of demonstrating knowledge of food safety. In addition to stating that the Person in Charge should be capable of demonstrating knowledge of food safety, the *Food Code* states that at least one management or supervisory employee be a Certified Food Protection Manager.[4] However, the *Food Code* stops short of requiring that a Certified Food Protection Manager be present at all hours of operation. This approach is, in part, a recognition that some retail facilities may only engage in activities that affect food safety during certain hours of operation. However, it can be anticipated that, during hours of operation, most food service facilities in federal buildings will be engaged in practices that could affect food safety and would therefore benefit from the presence of a Certified Food Protection Manager during all hours of operation. For this reason, the decision was made to include this criterion at the Standard level of implementation rather than the Innovative level.
Food Handler Training	Develop and implement a written policy that addresses employee food safety training. **(Innovative)**	The 2013 *Food Code* states that, "The Person in Charge shall ensure that employees are properly trained in food safety, including food allergy awareness, as it relates to their assigned duties."[4] Although a written policy is not a recommended part of the *Food Code*, having a written policy can help ensure that all employees get the training they need, even in food service operations where employee turnover is high. Multiple Environmental Health Specialist Network studies during 2004–2014 showed that, when policies are present, fewer violations of the *Food Code* occur.[54]

[a] Standard implementation criteria are considered to be widely achievable within food service; implementation at this level is expected. Innovative implementation criteria promote exceptional performance in various areas of food service; implementation at this level is encouraged.

[b] The Annexes provide the public health rationale for the standards in chapters 1–8 of the *Food Code*.

Behavioral Design Standards

Behavioral design is a relatively new concept born from decades of behavioral science literature that considers how the physical and informational environments influence people's decision making and actions. The selection and consumption of foods and beverages may be influenced by numerous aspects of how foods and beverages are prepared, placed, presented, and priced,[9,10,55] and these factors can be applied to federal food service. Behavioral design strategies can facilitate implementation of the Food and Nutrition standards of the *Food Service Guidelines for Federal Facilities* by informing consumers and generally making healthier food and beverage items easier to choose.

Some behavioral design standards were included in the *2011 HHS/GSA Guidelines*, although they were not included in a separate section. The focus of those standards was on informing consumers and helping them make healthier choices through defaults in meal combinations, pricing, and options for reduced portions. The Behavioral Design Working Group selected broad categories of standards for the current *Food Service Guidelines for Federal Facilities* that are based on classifications found in the scientific literature and feedback of the feasibility of their use in federal facilities. These categories are Placement and Layout,[9,55,56] Product Innovation and Defaults,[9,10,55] Pricing and Promotion,[56–59] Tableware,[60] Information,[10,55,56] and Organizational Policy.[61,62] These standards are based on strategies used as business practices by the food industry to influence choice.[63] Their inclusion in the *Food Service Guidelines for Federal Facilities* is intended to apply these business practices to influence the choice of healthier foods and beverages.

The Behavioral Design standards in the *Food Service Guidelines for Federal Facilities* are suggested at the Innovative level of implementation because they augment the Food and Nutrition standards and because the feasibility of their implementation may vary across different types of food service venues. Each standard includes a list of strategic methods that can be used to implement the standard. These methods can be put into operation singularly or in combination according to the venue, customer interests, and norms. The Behavioral Design standards are shown in Table 10.

Table 10. Behavioral Design Standards, Food Service Guidelines for Federal Facilities

Category	Standards	Implementation Level[a]
Placement and Layout	Strategically place foods and beverages and design the layout of food service venues to foster selection of healthier foods and beverages. Possible methods include: • Creating flow paths that emphasize healthier choices (i.e., placing healthier choices in prime selling locations). • Placing healthier foods and beverages at eye level or just below eye level, next to the cash register, at the front of cold and hot entrees sections, or within reach of a consumer. • Providing a food service line that features only healthier options.	Innovative
Product Innovations and Defaults	Use product innovations and the inclusion of healthier options as default[b] choices at decision points to encourage healthier choices. Possible methods include: • Offering smaller portion size options (e.g., half-sandwiches, half-sized entrees, smaller beverage containers). • Making healthier items default options throughout the menu (e.g., serving fruit instead of chips or salad instead of fries). • Offering healthier items in an easily accessible grab-and-go form. • Bundling and attractively naming healthier[c] options (e.g., Fit and Fresh Special).	Innovative
Pricing and Promotion	Use price incentives and marketing strategies to highlight healthier food and beverage items. Possible methods include: • Featuring meals that include only healthier offerings. • Promoting healthier items through sales or pricing specials. • Offering healthier foods and beverages at a lower price than less healthy items. • Introducing healthier products by providing samples for consumers.	Innovative
Tableware	Promote healthy portion sizes by optimizing the size of plates, bowls, glasses, other dishware, and serving ware. Possible methods include: • Using tongs and serving spoons that match appropriate serving sizes in all serving lines, including self-serve. • Using smaller plates and bowls where consumers self-serve to encourage appropriate portion size selection.	Innovative
Information	Use information, displays, decorations and signage to highlight healthier choices. Possible methods include use of visual or color-coded signage and point-of-purchase displays to highlight healthier foods.	Innovative
Organizational Policy	Work with worksite wellness programs or other employee organizations to promote healthier options. Possible methods include: • Offering space in cafeteria for employee "lunch and learn" sessions. • Featuring pricing and promotion incentives for healthier foods and beverages in an employee wellness newsletter.	Innovative

[a] Standard implementation criteria are considered to be widely achievable within food service; implementation at this level is expected. Innovative implementation criteria promote exceptional performance in various areas of food service; implementation at this level is encouraged.

[b] See glossary for definition.

[c] Labeling of menu or packaged items with the terms "healthy," "health," "healthier," "healthful," "healthfully," "healthiest," "healthily," or "healthiness" must occur in accordance with FDA's nutrition labeling regulations for the implied nutrient content claim "Healthy." See the Code of Federal Regulations at https://www.gpo.gov/fdsys/granule/CFR-2002-title21-vol2/CFR-2002-title21-vol2-sec101-10/content-detail.html for information on nutrition labeling of restaurant foods (21 CFR 101.10) and https://www.gpo.gov/fdsys/granule/CFR-2012-title21-vol2/CFR-2012-title21-vol2-sec101-65/content-detail.html for information on implied nutrient claims and related label statements (21 CFR 101.65). For additional labeling guidance, visit FDA's website at https://www.fda.gov/food/guidanceregulation/guidancedocumentsregulatoryinformation/labelingnutrition/ucm2006828.htm.

Glossary

Biobased Products—According to *Implementing Instructions for Executive Order 13693 Planning for Federal Sustainability in the Next Decade*, "Biobased products are defined as products derived from plants and other renewable agricultural, marine, and forestry materials and provide an alternative to conventional petroleum derived products."[34]

Default—The *Food Service Guidelines for Federal Facilities* defines a default as a pre-set menu option, i.e., a menu item that is automatically provided in the absence of a specific request by a consumer. For example, a default item can be the side dish that is typically served with a meal or the type of bread that comes on a sandwich.

Entrée—USDA defines an entrée as "an item that includes only the following three categories of main dish food items:

- A combination food of meat/meat alternate and whole grain-rich food, or
- A combination food of vegetable or fruit and meat/meat alternate, or
- A meat/meat alternate alone, with exception of yogurt, low-fat or reduced fat cheese, nuts, seeds and nut or seed butters and meat snacks (i.e., dried beef jerky and meat sticks)."[8]

Environmentally Preferable—According to the *Implementing Instructions for Executive Order 13693 Planning for Federal Sustainability in the Next Decade*, "Environmentally preferable products and services are those that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose."[34]

Forecasting—The *Food Service Guidelines for Federal Facilities* defines forecasting as a process for making predictions on the amount of food to order or prepare to meet consumer demand and ensure minimal food waste, based on factors such as historical sales data, the population of the venue serviced, and the day of the week.

Lean Meat and Lean Poultry—The *2015–2020 Dietary Guidelines* defines lean meat and lean poultry as, "any meat or poultry that contains less than 10 g of fat, 4.5 g or less of saturated fats, and less than 95 mg of cholesterol per 100 g and per labeled serving size, based on USDA definitions for food label use. Examples include 95% lean cooked ground beef, beef top round steak or roast, beef tenderloin, pork top loin chop or roast, pork tenderloin, ham or turkey deli slices, skinless chicken breast, and skinless turkey breast."[2]

Locally Sourced Products—Based on the definition in the *Food, Conservation, and Energy Act of 2008: Conference Report to Accompany H.R. 2419*, locally sourced refers to an agricultural product that is transported less than 400 miles from its origin or is distributed within the same state as it was produced.[47]

Low-Fat Dairy Products—This category of foods includes dairy products (and dairy alternatives), such as milk, yogurt, cheese, and fortified soy beverages that meet FDA's nutrient claim definition[64] for no-fat or low-fat.

Meal—The *Food Service Guidelines for Federal Facilities* defines a meal as consisting of an entrée and two side items.

Micro Markets—The *Food Service Guidelines for Federal Facilities* defines micro markets as small food service areas, such as stores or kiosks, in which a cashier is not present and the consumer makes purchases through self-checkout stations.

Organic Food—According to USDA, "Organic is a labeling term for food or other agricultural products that have been produced using cultural, biological, and mechanical practices that support the cycling of on-farm resources, promote ecological balance, and conserve biodiversity in accordance with the USDA organic regulations. This means that organic operations must maintain or enhance soil and water quality, while also conserving wetlands, woodlands, and wildlife. Synthetic fertilizers, sewage sludge, irradiation, and genetic engineering may not be used. Only products that have been certified as meeting the USDA's requirements for organic production and handling may carry the USDA Organic Seal."[32] USDA also states that organic meat, poultry eggs, and dairy products come from animals that are given no antibiotics or growth hormones.[33]

Seafood—The *2015–2020 Dietary Guidelines*, defines seafood as, "Marine animals that live in the sea and in freshwater lakes and rivers. Seafood includes fish (e.g., salmon, tuna, trout, tilapia) and shellfish (e.g., shrimp, crab, oysters)."[2]

Side Item—The *Food Service Guidelines for Federal Facilities* defines a side item as a single portion of a food or beverage that may accompany a meal or entrée or may be eaten on its own.

Soy Products—The *Food Service Guidelines for Federal Facilities* defines soy products as soy-containing foods that provide a source of protein, such as edamame, soy nuts, soybeans, tempeh, textured soy protein, tofu, and soy meat alternatives. Meat alternatives containing soy protein or tofu may be used to imitate meat, such as burgers, sausages, bacon, and hot dogs.

Variety—The *Food Service Guidelines for Federal Facilities* uses the *2015–2020 Dietary Guidelines* to define variety as "a diverse assortment of foods and beverages across and within all food groups and subgroups selected to fulfill the recommended amounts without exceeding the limits for calories and other dietary components. For example, in the vegetables food group, selecting a variety of foods could be accomplished over the course of a week by choosing from all subgroups, including dark green, red and orange, legumes (beans and peas), starchy, and other vegetables."[2]

Waste Diversion—Waste diversion means "redirecting materials from disposal in landfills or incinerators to recycling or recovery, excluding diversion to waste-to-energy facilities."[65] According to *Implementing Instructions for Executive Order 13693 Planning for Federal Sustainability in the Next Decade*, "Diversion of organic waste is particularly important because the anaerobic decomposition of organics in municipal solid waste landfills produce significant quantities of methane, which has a Global Warming Potential (GWP) twenty-five times greater than carbon dioxide (CO_2)."[34]

Whole Grain-rich Products—In defining foods that meet the whole grain-rich criteria, USDA states the following: "Foods that meet the whole grain-rich criteria for the school meal programs contain 100 percent whole grain or a blend of whole-grain meal and/or flour and enriched meal and/or flour of which at least 50 percent is whole grain. The remaining 50 percent or less of grains, if any, must be enriched."[66] Examples of whole grain-rich products include 100% whole grain foods such as oatmeal, wild rice, barley, or quinoa or products such as bread, pasta, or tortilla shells that are made with a blend of whole-grain meal or flour and enriched meal or flour of which at least 50% is whole grain.

References

1. Federal Health and Sustainability Team for Concessions and Vending. *Health and Sustainability Guidelines for Federal Concessions and Vending Operations*. Washington, DC: US Dept of Health and Human Services and US General Services Administration; 2012.

2. US Department of Health and Human Services and US Department of Agriculture. *2015–2020 Dietary Guidelines for Americans*. 8th ed. Washington, DC: US Dept of Health and Human Services and US Dept of Agriculture; 2015.

3. Executive Order 13693. Planning for federal sustainability in the next decade. Fed Regist. 2015;80(57):15869–15884.

4. US Public Health Service and US Food and Drug Administration. *Food Code*. College Park, MD: US Public Health Service and US Food and Drug Administration, US Dept of Health and Human Services; 2013.

5. US Department of Agriculture and US Department of Health and Human Services. *Dietary Guidelines for Americans, 2010*. 7th ed. Washington, DC: US Government Printing Office; 2010.

6. US Department of Agriculture and US Department of Health and Human Services. *Scientific Report of the 2015 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Health and Human Services and the Secretary of Agriculture*. Washington, DC: US Dept of Agriculture and US Dept of Health and Human Services; 2015.

7. US Department of Agriculture, Food and Nutrition Service. Smart Snacks in School [brochure]. Washington, DC: US Dept of Agriculture, Food and Nutrition Service; 2014. https://www.fns.usda.gov/sites/default/files/fdpir/02.19.14-QTC-Smart-Snacks-Brochure.pdf. Accessed March 7, 2017.

8. US Department of Agriculture, Food and Nutrition Service. National School Lunch Program and School Breakfast Program: Nutrition standards for all foods sold in schools as required by the Healthy Hunger-Free Kids Act of 2010; Interim final rule. *Fed Regist.* 2013;78(125)39067-39120.

9. Johnson E, Shu S, Dellaert B, et al. Beyond nudges: tools of a choice architecture. *Mark Lett*. 2012;23:487–504.

10. Liu PJ, Wisdom J, Roberto CA, Liu LJ, Ubel PA. Using behavioral economics to design more effective food policies to address obesity. *Appl Econ Perspect Polic*y. 2013;36(1):6–24.

11. US Department of Agriculture. Nutrition standards in the National School Lunch and School Breakfast Programs; Final rule. *Fed Regist.* 2012;77(17)4088-4167.

12. American Heart Association. *Healthy Workplace Food and Beverage Toolkit*. Portland, OR: American Heart Association; 2015.

13. Pitts SB, Graham J, Mojica A, et al. Implementing healthier foodservice guidelines in hospital and federal worksite cafeterias: barriers, facilitators and keys to success. *J Hum Nutr Diet.* 2016;29(6):677–686. doi: 10.111/jhn. 12380.

14. Sodexo. Why Mindful? website. https://www.mindful.sodexo.com/why-mindful. Accessed February 1, 2016.

15. Los Angeles County Department of Public Health. *Nutrition Recommendations for Meals, Snacks and Beverages in Cafeterias*. Los Angeles, CA: Los Angeles County Department of Public Health; 2013. http://publichealth.lacounty.gov/chronic/docs/20131227_Nut_Recommendations.pdf. Accessed April 28, 2016.

16. National Institutes of Health. Division of Amenities and Transportation Services. Food: Sensible Selection Menu Options website. http://www.ors.od.nih.gov/pes/dats/food/balance/Pages/Sensible%20Selection.aspx. Accessed March 2, 2016.

17. US Food and Drug Administration. Final Determination Regarding Partially Hydrogenated Oils (Removing Trans Fat) website. http://www.fda.gov/Food/IngredientsPackagingLabeling/FoodAdditivesIngredients/ucm449162.htm. Accessed April 13, 2016.

18. US Food and Drug Administration. Final determination regarding partially hydrogenated oils. *Fed Regist.* 2015;80(116):34650–34670.

19. US Department of Health and Human Services and US Food and Drug Administration. Food labeling: nutrition labeling of standard menu items in restaurants and similar retail food establishments. Fed Regist. 2014;79(230):71156–71259.

20. Mattes R, Donnelly D. Relative contributions of dietary sodium sources. *J Am Coll Nutr.* 1991;10(4):383–393.

21. US Department of Agriculture, Agricultural Research Service. Table 25. Snacks: Percentages of Selected Nutrients Contributed by Food and Beverages Consumed at Snack Occasions, by Gender and Age, in the United States, 2011-2012. http://www.ars.usda.gov/SP2UserFiles/Place/80400530/pdf/1112/Table_25_SNK_GEN_11.pdf. Accessed February 1, 2016.

22. Sebastian R, Enns C, Goldman J. Snacking patterns of U.S. adults: what we eat in America, NHANES 2007-2008. *Food Surveys Research Group Dietary Data Brief*. 2011;4:1–8.

23. US Department of Health and Human Services and US Food and Drug Administration. Food labeling: calorie labeling of articles of food in vending machines. *Fed Regist.* 2014;79(230):71259–71293.

24. Executive Order 13423—Strengthening federal environmental, energy, and transportation management. *Fed Regist.* 2007;72(17)3919-3923.

25. Executive Order 13514—Federal leadership in environmental, energy, and economic performance. *Fed Regist*. 2009;74(194):52117–52127.

26. US Environmental Protection Agency. *Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants*. Washington, DC: US Environmental Protection Agency; 2014.

27. US Environmental Protection Agency. Sustainable Management of Food: Food Recovery Hierarchy website. http://www.epa.gov/sustainable-management-food/food-recovery-hierarchy. Accessed February 2, 2016.

28. US Environmental Protection Agency. Sustainable Management of Food: Reducing the Impact of Wasted Food by Feeding the Soil and Composting website. http://www.epa.gov/sustainable-management-food/reducing-impact-wasted-food-feeding-soil-and-composting. Accessed February 2, 2016.

29. US Environmental Protection Agency. Reduce Wasted Food by Feeding Hungry People website. https://www.epa.gov/sustainable-management-food/reduce-wasted-food-feeding-hungry-people. Accessed April 13, 2016.

30. US Environmental Protection Agency. *A Guide to Conducting and Analyzing a Food Waste Assessment*. Washington, DC: US Environmental Protection Agency; 2014.

31. Martinez S, Hand M, Da Pra M, et al. Local food systems: concepts, impacts, and issues. *Economic Research Report*. 2010;97.

32. US Department of Agricultural. *Agricultural Marketing Service's National Organic Program*. Washington, DC: US Dept of Agriculture; 2015.

33. US Government Publishing Office. Electronic Code of Federal Regulations website. Agriculture: Regulations of the Department of Agriculture. http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title07/7cfr205_main_02.tpl. Accessed February 17, 2016.

34. White House Council on Environmental Quality, Office of Federal Sustainability. *Implementing Instructions for Executive Order 13693: Planning for Federal Sustainability in the Next Decade*. Washington, DC: White House Council on Environmental Quality; 2015.

35. Factsheet: The Four Pillars of Agriculture and Rural Economic Development [news release]. Washington, DC: US Dept of Agriculture; May 20, 2015. http://www.usda.gov/wps/portal/usda/usdahome?contentid=2015/05/0142.xml. Accessed February 2, 2016.

36. King RP, Hand MS, DiGiacomo G, Clancy K, Gomez MI, Hardesty SD, Lev L, and McLaughlin EW. *Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains*, ERR-99, U.S. Dept. of Agriculture, Economic Research Service; June 2010.

37. US Department of Agriculture. *Know Your Farmer, Know Your Food*. Washington, DC: US Dept of Agriculture; 2012.

38. US Department of Agriculture. USDA Organic website. http://www.usda.gov/wps/portal/usda/usdahome?navid=organic-agriculture. Accessed July 11, 2017.

39. US Department of Agriculture. What is Organic? website. https://www.ams.usda.gov/publications/content/what-organic. Accessed July 12, 2017.

40. Centers for Disease Control and Prevention. National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS): Antibiotic Resistance website. http://www.cdc.gov/narms/animals.html. Accessed August 11, 2016.

41. US General Services Administration. SF Tool, Green Procurement Compilation: Pest Management website. https://sftool.gov/greenprocurement/green-services/4/pest-management. Accessed April 13, 2016.

42. US Environmental Protection Agency. Introduction to Integrated Pest Management website. https://www.epa.gov/managing-pests-schools/introduction-integrated-pest-management. Accessed April 13, 2016.

43. US Environmental Protection Agency. Effective Pest Management in Routine Cleaning and Maintenance for a Healthy School Environment website. https://www.epa.gov/schools-healthy-buildings/effective-pest-management-routine-cleaning-and-maintenance-healthy-school. Accessed April 13, 2016.

44. US General Services Administration and US Department of Agriculture. *Opening a Farmers Market on Federal Property: A Guide for Market Operators and Building Managers*. Washington, DC: Agricultural Marketing Service, US Dept of Agriculture; 2009.

45. ENERGY STAR. Certified Products: Vending Machines for Consumers website. https://www.energystar.gov/products/other/vending_machines. Accessed April 13, 2016.

46. US Department of Agriculture, Office of the Chief Economist. Recovery/Donations website. http://www.usda.gov/oce/foodwaste/resources/donations.htm. Accessed December 15, 2016.

47. US House of Representatives. *Food, Conservation, and Energy Act of 2008: Conference Report to Accompany H.R. 2419*. Washington, DC: US Government Publishing Office; 2008.

48. Scallan E, Griffin P, Angulo F, Tauxe R, Hoekstra R. Foodborne illness acquired in the United States—unspecified agents. *Emerg Infect Dis*. 2011;17(1)16–22. In US Department of Health and Human Services and US Public Health Service and Food and Drug Administration. *Food Code*. College Park, MD, 2013.

49. Scallan E, Hoekstra R, Angulo F, Tauxe R, Widdowson M-A, Roy S. Foodborne illness acquired in the United States—major pathogens. *Emerg Infect Dis*. 2011;17(1)7–15. In US Department of Health and Human Services and US Public Health Service and Food and Drug Administration. *Food Code*. College Park, MD, 2013.

50. Centers for Disease Control and Prevention. Foodborne Outbreak Tracking and Reporting: Foodborne Outbreak Online Database (FOOD Tool) website. http://wwwn.cdc.gov/foodborneoutbreaks/. Accessed February 2, 2016.

51. US Department of Agriculture, Food Safety and Inspection Services. *Best Practices Guidance for Controlling Listeria monocytogenes (Lm) in Retail Delicatessens*. Washington, DC: Food Safety and Inspection Services, US Dept of Agriculture; 2015.

52. US Food and Drug Administration. *Employee Health and Personal Hygiene Handbook*. Washington, DC: US Food and Drug Administration; 2015.

53. US Food and Drug Administration. *FDA Report on the Occurrence of Foodborne Illness Risk Factors in Selected Institutional Foodservice, Restaurant, and Retail Food Store Facility Types*. Washington, DC: US Food and Drug Administration; 2009.

54. Sumner S, Brown L, Frick R, et al. Factors associated with food workers working while experiencing vomiting or diarrhea. *J Food Prot*. 2011;74(2):215–220.

55. Cohen D, Babey S. Contextual influences on eating behaviors: Heuristic processing and dietary choices. *Obes Rev*. 2012;13(9):766–779.

56. Hollands G, Shemilt J, Marteau T, et al. Altering micro-environments to change population health behaviour: towards an evidence base for choice architecture interventions. *BMC Public Health*. 2013;13(1218).

57. Epstein L, Jankowiak N, Nederkoom C, Raynor H, French S, Finkelstein E. Experimental research on the relation between food price changes and food purchasing patterns: A targeted review. *Am J Clin Nutr*. 2012;95(4):789–809.

58. Shemilt I, Hollands G, Marteau T, et al. Economic instruments for population diet and physical activity behaviour change: a systematic scoping review. *PLoS ONE*. 2013;8(9):e75070.

59. Waterlander W, Steenhuis I, de Vet E, Schuit A, Seidell J. Expert views on most suitable monetary incentives on food to stimulate healthy eating. *Eur J Public Health*. 2010;20(3):325–331.

60. Hollands GJ, Shemilt I, Marteau TM, et al. Portion, package or tableware size for changing selection and consumption of food, alcohol and tobacco. *Cochrane Database Syst Rev*. 2015. doi: 10.1002/14651858.CD011045.pub2.

61. Anderson L, Quinn T, Glanz K, et al. The effectiveness of worksite nutrition and physical activity interventions for controlling employee overweight and obesity: a systematic review. *Am J Prev Med*. 2009;37(4):340–357.

62. Engbers L, van Poppel M, Marijke J, Paw C, van Mechelen W. Worksite health promotion programs with environmental changes: a systematic reveiw. *Am J Prev Med*. 2005;29(1):61–70.

63. Chandon P, Wansink B. Does food marketing need to make us fat? A review and solutions. *Nut Rev*. 2012;70(10):571–593.

64. US Food and Drug Administration. Guidance for Industry: A Food Labeling Guide (9. Appendix A: Definitions of Nutrient Content Claims) website. https://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm064911.htm. Accessed August 16, 2016.

65. US Department of Energy. Federal Laws & Requirements Search: Definition of Divert website. https://www4.eere.energy.gov/femp/requirements/laws_and_requirements/definition_divert. Accessed December 16, 2016.

66. US Department of Agriculture, Food and Nutrition Service. *Whole Grain Resource for the National School Lunch and School Breakfast Programs: A Guide to Meeting the Whole Grain-rich Criteria*. Washington, DC: Food and Nutrition Service, US Dept of Agriculture; 2014.

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