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Policy Issues Involving Food Loss and Waste

Food loss refers to edible food that is available for human consumption but is not eaten. This could occur for any number of reasons, including cooking loss and natural shrinkage; loss from mold, pests, or inadequate climate control; and plate waste. *Food waste* is a component of food loss and refers to food discarded by retailers and consumers due to quality concerns or undesirable product attributes (e.g., imperfect produce).

In the United States, the U.S. Department of Agriculture (USDA) reports that food loss accounts for an estimated 31% (133 billion pounds) of all food available for human consumption (based on 2010 data). Previous USDA loss estimates have ranged from 20% to 40%. USDA's most recent estimates likely understates total U.S. losses, as it does not account for losses at the farm and losses between the farm and retail level because of data limitations. USDA estimates U.S. food losses to be worth \$161.6 billion in 2010. On a per capita basis, total food loss was valued at \$522 annually: \$151 per year at the retail level and \$371 at the consumer level. At the consumer level, this represents about 9% of the roughly \$4,000 average amount spent on food per person in 2010.

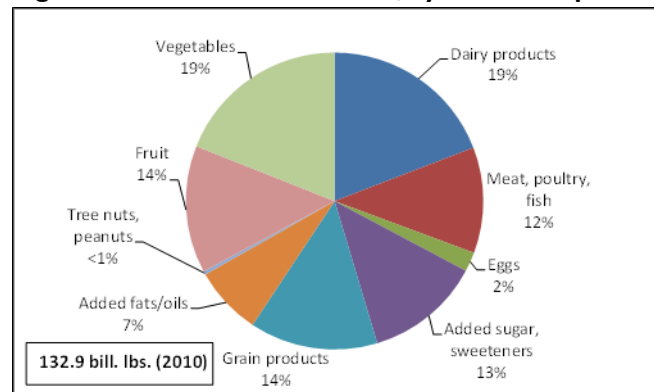
Globally, the United Nations reports that about one-third of food produced for human consumption is lost or wasted. Other estimates of loss worldwide indicate that waste and loss rates may be even greater but may vary by country/region or by the type of food.

USDA estimates food loss accounts for 31% of food available for human consumption in the United States

Food waste is associated with a series of policy concerns spanning economic, social, and environmental impacts. Economic impacts include financial and disposal costs to food producers, processors, and distributors and also longer term concerns about meeting food needs for an increasing U.S. and global population. Social impacts include concerns about food insecurity and related nutritional concerns. The U.N. reports that 24% of all food calories produced go uneaten worldwide. In the United States, an estimated 33% of all available food calories were uneaten. Environmental and natural resource impacts raise concerns over the use of land, water, energy, and inputs needed to produce, process, and distribute food as well as greenhouse gases that are generated when food waste is sent to landfills.

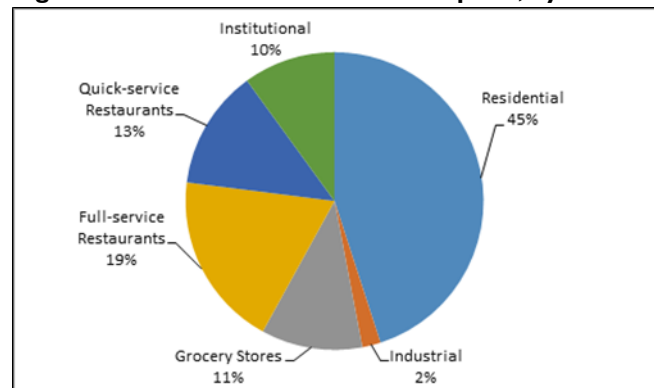
Food loss occurs across all major food groups (**Figure 1**). In the United States, by volume, vegetables and dairy products together account for 38% of estimated food losses, with another 28% of losses due to fruit and grain products. Food waste and loss also occurs throughout the supply chain. By sector, most U.S. food waste occurs at the consumer and food service level, accounting for nearly 90% of all food waste combined (**Figure 2**).

Figure 1. Estimates of Food Loss, by Food Group



Source: USDA, "ERS's Food Loss Data Help Inform the Food Waste Discussion," June 2013.

Figure 2. Estimate of Food Waste Disposal, by Sector



Source: BSR, *Food Waste: Tier 1 Assessment*, March 2012, <http://www.foodwastealliance.org/>.

Efforts to Reduce Food Loss

In 2013, USDA launched the "U.S. Food Waste Challenge" to reduce, recover, and recycle food waste across the food chain, enlisting efforts by a range of partner organizations including producer groups, processors, manufacturers, retailers, and others in the private sector; charitable and faith-based organizations; other federal government agencies; state, local, and tribal governments; schools; and community organizations. As part of this effort, the U.S. Environmental Protection Agency (EPA) launched its "Food Recovery Challenge" to provide participants with data management software and technical assistance to help quantify and improve their food management practices.

Initially USDA stated its goal was to enlist 400 partner organizations by 2015. By April 2015, USDA claimed that more than 4,000 participants were working to reduce food loss and waste in their operations. In September 2015, USDA established the "first-ever national food waste reduction goal," calling for a 50% reduction by 2030.

(Previously, the Clinton Administration initiated efforts geared at food recovery, salvage, and gleaning.)

Related efforts have been initiated in the private sector. Walmart began developing sustainable standards for its products in 2009 and compiles disposal and recovery data across its supply chain (to promote recycling, repurposing, and reuse), donates food to local food banks and hunger relief organizations, and reuses organic material. The Food Waste Reduction Alliance involves food industry trade associations (including the Grocery Manufacturers Association, the Food Marketing Institute, and the National Restaurant Association) along with manufacturing, retailing, and food service companies and partners from the anti-hunger community and the waste management sector. Ongoing projects involve food donations, redirection of waste stream products to secondary markets, and diversion of biological waste for reuse by separating out other recyclable waste.

Legislative Options to Reduce Food Loss

The types of corrective actions and policy options widely recognized to address food waste and loss—as supported by the Administration’s efforts and also within various private sector initiatives—are those embedded in EPA’s Food Recovery Hierarchy (shown below). These include (in order of most preferred) reducing the amount of surplus food, donating food to those in need, redirect/reuse for animal feed and other industrial uses, and composting biological waste (e.g., use to amend soils). Incineration and landfill is considered the least preferred disposal method, according to EPA’s prioritization.



Given that an overwhelming share of food loss occurs at the consumer and food service segments, many initiatives addressing food loss focus foremost on raising awareness and educating consumers and food preparers. Related policies that could help reduce consumer waste include knowing when food goes bad or becomes a food safety concern (rather than merely a food quality concern), buying imperfect produce (e.g., non-uniform grades, undesirable color or blemishes), and storing and cooking food in a manner that minimizes spoilage and risks, thereby reducing waste (e.g., observing proper time/temperature profiles).

To date, there have been few direct or comprehensive legislative efforts by Congress to address food loss. A range

of policy options has been initiated by some federal and state agencies and has been promoted by U.S. and international academic, business, and consumer advocacy group often representing diverse interests (such as Feeding America, the Natural Resources Defense Council, Walmart, and the Food Waste Reduction Alliance). Among the types of policy options being promoted are the following:

- Support consumer and end-user education and awareness campaigns regarding food waste;
- Address food labeling rules to make date labeling more uniform (rather than the current array of “best-if-used-by,” expiration, packing, or pull dates) and specify indicator labels regarding time and temperature requirements to ensure safety, or exempt certain shelf-stable foods from date labeling;
- Clarify food safety guidelines and regulatory enforcement regarding date labels, which address food quality and not necessarily food safety;
- Promote food recovery efforts, including food reuse, salvage, and gleaning;
- Provide tax credits and liability protection to businesses to encourage charitable food donations; and
- Provide incentives to discourage food waste from going into landfills, including promotion of “less than perfect” fruits and vegetables, product development using food byproducts (for use in further food processing or other technology innovations), and market development of reusable or recyclable materials (e.g., secondary uses such as biogas or animal feed) or for use in composting.

In December 2015, as part of the Consolidated Appropriations Act of 2016 (P.L. 114-113), Congress made permanent the (formerly temporary) enhanced charitable deduction for contributions of food inventory, extending and expanding the charitable tax deductions for food donations. Generally, food donors are protected from liability under the Bill Emerson Good Samaritan Food Donation Act (42 U.S.C. §1791), unless they are negligent.

Comprehensive food waste and recovery legislation has been introduced in both the House (H.R. 4184) and Senate (S. 3108). These bills would expand the mission and funding for several existing federal programs to cover a range of food waste efforts, including the additional funding for loans and grants to expand use of composting and energy projects. These bills would also modify federal food date labeling requirements, amend federal agency and national school lunch procurement policies, create a USDA Office of Food Recovery to coordinate across federal programs, support consumer education campaigns, and require that USDA further study and report on food waste and donations by retailers. In addition, two other bills specifically address federal food date labeling requirements (H.R. 5298; S. 2947). Another bill would amend laws governing federal food donations (H.R. 4382) to require reporting on food waste by certain federal contractors.

Renée Johnson, Specialist in Agricultural Policy

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