Reducing Food Waste

At the Federal Government Level

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What is food waste?

Food waste is food "**fit for consumption**" that is "**removed from the supply chain**" or "**left to spoil or expire as a result of negligence by the actor**," like not eating or serving it on time (National Academies of Sciences, Engineering, and Medicine 2019, 5).

Why is it a problem and what are the causes?

More than **76 billion pounds** of food per year is sent to landfills and combustion facilities in the United States (US EPA 2020).

About **85%** of food waste is from homes and businesses. The rest comes from industry or agriculture (ReFED 2020a).

One ton of food produces **3.8 tons of greenhouse gas emissions**, which contribute to climate change (Eubanks 2019).

Food waste is a problem due to its scale and environmental impacts. About **30-40% of food is wasted** (USDA 2020). The largest source of food waste in the United States is fruits and vegetables (Chandler 2016). Food waste has been a significant source of household waste since pre-industrial times, but interest in food waste reduction increased in the 2010s as food waste and its impact on climate change continued to grow as a problem (Thyberg and Tonjes 2016).

There are multiple causes of food waste. People and businesses often cannot exactly estimate food needs, leading to food waste and unnecessary greenhouse gas emissions (Costello, Birisci, and McGarvey 2016). Plus, food is cheaper in the United States than in most places, discouraging careful consumption of food (Chandler 2016). Industrialization, economic growth, urbanization, and globalization have changed and complicated food supply chains, which has created more food waste (Thyberg and Tonjes 2016). Further, local areas differ in their abilities to address the problem for reasons such as social capital, political leadership and commitment, economic resources, administrative resources, and environmental attitudes and behavior (Press 1998).

Current federal food waste policy

- In 2015 the USDA and EPA announced the 2030 Food Loss and Waste Reduction Goal:
  - Goal: to cut national food waste from 133 billion pounds per year to 66 billion pounds per year
  - EPA must work with states and tribes to encourage institutions to more sustainably manage food waste
  - There has been no announced progress between 2015-2020 (US EPA 2020)

What is currently proposed at the federal level?

- Food Recovery Act to encourage businesses to donate extra food (ReFED 2020b)
  - This act is meant to reduce food waste by standardizing date labeling on food since it is inconsistent among states, but the latest action on this bill was being referred to the House Subcommittee on Health in July 2017 (Library of Congress 2020)
- Food Labeling Act to help food that is safe to eat be sold for longer by making clear the differences between labels showing when products must be sold and when they must be consumed (ReFED 2020b)
- Farm Bill of 2018 to increase liability protection for groups that donate food (ReFED 2020b)

Common misconceptions

It is necessary to grow more food to end hunger.

However, the massive amount of food waste shows food needs to be reallocated (World Food Program USA 2017).

The main greenhouse gas produced by food waste is carbon dioxide.

However, methane, produced by food waste in landfills, traps much more heat (World Food Program USA 2017).

Composting is not financially feasible.

However, a composting program financially benefited San Francisco (World Food Program USA 2017).

All compost efforts are equal when dealing with food waste.

However, different compost and soil types could have different impacts on greenhouse emissions (Zeman, Depken and Rich 2002).

How to further reduce food waste

Order of Priorities for Reducing Food Waste (Muth et al. 2019)

1. Reduce production of extra food
2. Redirect food to hungry people
3. Feed animals
4. Reduce waste at industry level
5. Increase composting
6. Reduce use of incineration or landfills

It is best to reduce food waste at the source and then focus on managing it!

Best approach at federal level: A multifaceted policy approach of different strategies - including legislation and education about food waste - is necessary since people have varying attitudes toward reducing food waste (Thyberg and Tonjes 2016) and there are many causes (Muth et al. 2019).

Legislation: The most cost-effective policy for reducing food waste is standardized date labeling, which could **divert 398,0000 tons** and **create $4,547 per ton** (ReFED 2020a). Also, requiring greenhouse gas emissions costs to be part of food purchase costs would encourage businesses to purchase foods that create low greenhouse gas emissions (Costello, Birisci, and McGarvey 2016).

- Local example of legislation: Five states limited the organic matter sent to landfills. In Massachusetts, this policy created over **900 jobs** and **$175 million** in economic activity. A counterargument to this solution is not all states have the infrastructure for this policy; nevertheless, it is viable in some areas (Frandsen 2017).

Education: People should learn what they can do to reduce food waste since so much food waste comes from homes.

- Local example: San Francisco used media framing to successfully encourage its citizens to reduce their food waste. The city emphasized its goal to get to zero food waste and that people should compost to help. This initiative **reduced the city's greenhouse gas emissions by 12%** (Shelton 2017).

Education about composting is beneficial since increasing centralized composting can create **9,000 jobs** in the United States (ReFED 2020a).

Counterargument: Reducing food waste does not tend to be very controversial, but a counterargument is that "food waste is the symptom, not the problem," and that consumers should not be held responsible for a system that does not match production with consumption (Lang 2013).

Rebuttal: However, a combination of policies would reduce the responsibility of the consumer. For example, standardized date labeling will reduce food waste before it reaches the consumer (ReFED 2020a). It is necessary to make policy to reduce food waste - in as many ways possible - because **redirecting 15% of edible food waste could help all food-insecure or very low food-secure American households obtain 35% of their caloric needs** (Walia and Sanders 2017).

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