



# FOOD WASTE POLICY: EXPLORING SUSTAINABLE REFORM IN CLEVELAND-CUYAHOGA COUNTY



Rachael F Bucey Leopold, Colleen C Walsh, PhD  
School of Health Sciences, Cleveland State University

## Introduction

Food waste is defined as discarding or misusing food that is otherwise safe for human consumption. Businesses, organizations and consumers in urban areas waste food in part due to regulations that define standards for consumable and donated food and a general lack of awareness of the drawbacks of food waste. Food waste policies advocated for by associations such as the Cleveland-Cuyahoga County Food Policy Coalition (CCCFPC) have the ability to divert food from landfills and instead be donated, composted, or eaten by the original purchaser.

This research endeavors to scrutinize food disposal practices in the Cleveland-Cuyahoga area in order to propose potential amendments and policies that will serve as effective measures to achieve sustainable food waste reform.

## Background

Food waste contributes to adverse environmental, economic, health, and social impacts.

- The decomposition of uneaten food in landfills releases a greenhouse gas called methane into the atmosphere, which absorbs infrared radiation, traps heat, and leads to global warming.
- The amount of resources utilized on food that will never be eaten leads to unfavorable economical impacts. The land, water, labor, and other resources used to grow, process, transport, and distribute food is done so in vain if not put back into society to be used as energy for humans.
- Food waste increases the price of nutritious food. Diets deficient in nutritious foods contribute to increase in instances of cardiovascular, pancreatic, and other preventable chronic diseases.
- In Ohio, 17% of the population faces food insecurity - a household's access to adequate amounts of quality food is disrupted due to lack of finances and resources.

## Methods

This study utilized secondary data analysis of CCCFPC surveys and systematic review of the most recent evidence from literature to provide supplemental information to understand effective food policies.

Surveys were completed by 62 attendees of the Cleveland Cuyahoga County Food Policy Coalition Community Convening on October 25th, 2017 at the Greater Cleveland Foodbank in Cleveland, OH.

The purpose of the survey was to gauge which food policies participants considered to be of highest and lowest priority for the CCCFPC in 2018. Participants were asked to rank each policy from 1 to 9 (1 being highest priority, 9 the lowest). Attendees were asked to consider a few questions about each policy before making their decisions:

- Do we have allies and collaborators?
- Is it feasible and sustainable?
- What is the reach? Who benefits?
- What is the impact? Who are the winners/losers?
- What are the unintended consequences?
- How upstream is the target?
- Does it promote equity?

## Results

| Source           | Year      | Setting                            | Sample Size | Methodology                                 | Findings/Results  |
|------------------|-----------|------------------------------------|-------------|---|---|
| Warshawsky       | 2013-14   | The Kroger Company                 | 35          | Interview                                   | Food donation, Food waste Tracker, Anaerobic Digestion, Branding Effect, Food Reclamation   |
| Strotmann        | 2017      | Healthcare Food Service Facilities | 3           | Case Study                                  | Weigh Food Waste, System of Communication   |
| Munesue          | 2013      | Developed & Developing Regions     | 122         | PEAT Simulation                             | Data Sharing, Lower Standard's for Appearance of Food, Public Awareness Campaigns, Standardize Date Label Language  |
| Gollhofer        | 2017      | Foodsharers & Dumpster Divers      | 27          | Interview                                   | Date Label Language Standardization, Reversal of Antiscavenging Laws, Food Donation, Anaerobic Digestion, Composting, Food Sharing                                    |
| Aschemann-Witzel | 1998-2015 | Food Organizations                 | 26          | Case Study / Interview                      | Redistribution, Information Initiatives, Campaigns to Sell Sub-Optimal Food   |
| Wilson           | 2015      | Laboratory Subjects                | 3600        | Experimental Design                         | Standardization of Date Labeling Language   |
| Phillips         | 2010-2011 | Foodbank                           | 90          | Monte Carlo Simulation                      | Food Rescue & Donation  |
| ReFED            | 2018      | Informative Website                | -           | Data Collection                             | Donation, Composting, Anaerobic Digestion, Date Label Language Standardization, Self - Auditing Food Waste Tool, Information Initiatives, Incentives, Branding Effect |
| Eaton            | 2017      | Washington, D.C.                   | -           | Report                                      | Donated Food Liability Protection   |
| Derqui           | 2017      | Institutional Food Services        | 7           | Quantitative Assessment                     | Weigh Food Waste, Self - Assessment Tool, Public Awareness  |
| Daily Advocate   | 2015      | Food Banks                         | 12          | Quantitative Analysis                       | Food Banks, Redistribution & Donation   |
| Starr            | 2000-2012 | Municipal Waste Management         | -           | Waste Management Utility Maximization Model | Pay - As - You - Throw  |
| Sakaguchi        | 2016      | Berkeley, CA                       | 29          | Case Study / Interview / Survey             | Measure Food Waste, Redistribution, Public Awareness Campaigns, Certification for Being "Green"   |

## Discussion

Analysis of the survey results determined that policy opportunities for composting regulations at schools, businesses, and organizations received the most support, followed by tax incentives for "green" waste management businesses and infrastructure development to manage food scraps.

Review of literature indicated focus primarily on certain infrastructure initiatives such as creating a universal self-assessment food waste auditing tool.

The results from the survey and literature review indicate a certain amount of agreement when determining which food waste policies are of highest priority for 2018, but also signify a need for further collaboration to specify the most effective set of policies to mitigate adverse effects caused by food waste in Cleveland-Cuyahoga County.

PayAsYouThrow  
IncreaseCompostingArea  
TaxIncentives  
CurbsideComposting  
Composting@Schools  
ClimateActionPlan  
Farmers'Markets  
Infrastructure  
StormWaterCapture

Figure 1. The number of times each policy was ranked a particular number was calculated, determining which food waste policies were considered to be of highest and lowest priority.

Table 2. Findings from Systematic Literature Review