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ORGANIC WASTE BANS: BEYOND THE COMPOST HEAP
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David Lee*

Introduction

Food waste and food insecurity are strange bedfellows, but in the United States they shamelessly walk hand-in-hand. The USDA's Supplemental Nutrition Assistance Program¹ ("SNAP") and the Emergency Food Assistance Program ("TEFAP")² are two federal programs that provide for large numbers of people in the United States.³ Local food recovery and donation programs serve their communities as the "backbone of the America hunger response" efforts.⁴ While many American households continue to report their

* The author is a student of the University of Arkansas School of Law, Class of 2021. He would like to thank Professor Beth Katya Zilberman for her guidance and comments throughout the process of writing the substantive portion of this note. Additionally, he would like to thank Professor Sara Gosman for her vital feedback that helped shape the note. He would also like to thank his fellow editors on the Journal of Food Law & Policy, Channing Burd, Laura Edmondson, Samantha Dillahunty, and Ron Turley, for their help and revising this note. Finally, the author would like to thank his wife, Jenny, and his family and friends for their unwavering support.

¹ Food & Nutrition Serv., *Supplemental Nutrition Assistance Program (SNAP)*, U.S. DEP'T AGRIC., <https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program> (last visited Apr. 20, 2020) [hereinafter *SNAP*]. SNAP is likely the most well-known of numerous federal programs whose purpose is to take abundant or excess food production and make it available to people with food insecurity. See Nat'l Agric. Library, *USDA Nutrition Assistance Programs*, U.S. DEP'T AGRIC., <https://www.nal.usda.gov/fnic/usda-nutrition-assistance-programs> (last visited Apr. 20, 2020), for a list of many other federal food assistance programs.

² See generally FOOD & NUTRITION SERV., U.S. DEP'T OF AGRIC., THE EMERGENCY FOOD ASSISTANCE PROGRAM (2020), available at https://fns-prod.azureedge.net/sites/default/files/resource-files/tefap-program-fact-sheet-2019_1.6.20.pdf.

³ The Center on Budget and Policy Priorities estimates that "38 million people nationwide in 2019 alone" were benefited by SNAP. Lauren Hall, *A Closer Look at Who Benefits from SNAP: State-by-State Fact Sheets*, CRT. ON BUDGET & POL'Y PRIORITIES, <https://www.cbpp.org/research/food-assistance/a-closer-look-at-who-benefits-from-snap-state-by-state-fact-sheets#Alabama> (last updated Jan. 12, 2021).

⁴ JACOB E. GERSEN ET AL., FOOD LAW: CASES AND MATERIALS 651 (2018). There are abundant local food recovery, donation, and assistance programs throughout the United States. See, e.g., Lani Furbank, *59 Organizations Fighting Food Loss and Waste*, FOODTANK (July 2016), <https://foodtank.com/news/2016/07/fighting-food-loss-and-waste/>, for an expansive list of mostly American local food recovery agencies, with the University of Arkansas' Food Recovery Project making the list.

struggles with food insecurity,⁵ heaping piles of good food go to waste.⁶ The repercussions of wasted food are vast, taxing American wallets, wasting our resources with every bit thrown away, and, to a degree hotly debated, hurting the environment we depend on for the growth of the food we trash.⁷ Several states and municipalities have passed landfill bans on organic⁸ waste (“organic waste bans”) in an

See also Food Waste on the Farm, MOVE FOR HUNGER (March 10, 2017), <https://moveforhunger.org/food-waste-farm>. Further, there is a rising culture of local food awareness and cooperation seen in local food movements and Community Supported Agriculture (CSA), which point toward a societal awareness of the importance of one’s locality in addressing food related issues. *See generally* JENNIFER META ROBINSON & JAMES ROBERT FARMER, *SELLING LOCAL: WHY LOCAL FOOD MOVEMENTS MATTER* (2017). For a quick overview of how a CSA functions, see Molly Watson, *Community-Supported Agriculture (CSA)*, THE SPRUCE EATS, <https://www.thespruceeats.com/community-supported-agriculture-csa-2216594> (last updated Feb. 17, 2017). For a look at an Arkansas-based CSA that both sells its harvests through the CSA model and donates much of its food as a non-profit, see *Community Supported Agriculture*, COBBLESTONE FARMS, <https://www.cobblestonefarms.org/csa> (last visited Apr. 16, 2020).

⁵ The USDA defines “food secure” households as those where “all household members had access at all times to enough food for an active, healthy life,” and conversely defined food insecure households as “households [that] were, at times, unable to acquire adequate food for one or more household members because they had insufficient money and other resources for food.” ALISHA COLEMAN-JENSEN ET AL., ECON. RESEARCH SERV., U.S. DEP’T OF AGRIC., ECON. RESEARCH REPORT NO. 270, HOUSEHOLD FOOD SECURITY IN THE UNITED STATES IN 2018, at 2, 6 (2019), available at <https://www.ers.usda.gov/webdocs/publications/94849/err-270.pdf?v=963.1>. The USDA further breaks down “food security” into two sub-categories and “food insecurity” into two sub-categories. It categorizes a household into each category depending on the number and nature of reported incidents of anxiety over or actual shortage of nutritional food for the household. Food insecurity is not easily defined as it is experienced differently by households in the same or similar category, and even changes as you look at each individual household member. Econ. Research Serv., *Definitions of Food Security*, U.S. DEP’T AGRIC., <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx> (last updated Sept. 4, 2019). The commonly cited definition of food insecurity that is the most workable for purposes of this article is “a lack of consistent access to enough food for an active, healthy life” for all household members. *Understanding Food Insecurity*, FEEDING AM., https://hungerandhealth.feedingamerica.org/understand-food-insecurity/#_ftn1 (last visited Apr. 5, 2020) (citing the USDA’s estimate that in 2018, 37 million individuals, “including 11 million children,” experienced food insecurity in some form).

⁶ *See infra* notes 51–72 and accompanying text.

⁷ *See infra* notes 84–102 and accompanying text.

⁸ “Organic” here is not concerned with the particular methods of growing foods or raising the food that feeds animals “without employment of chemically formulated fertilizers, growth stimulants, antibiotics, or pesticides,” but is intended to describe a type of waste – food (grown, raised, or otherwise) that decomposes – that an “organic waste ban” seeks to keep out of landfills. *Organic*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/organic> (last visited Apr. 20, 2020).

effort to address the pervasive food waste problem and put food to better uses.⁹

Many ancient and modern cultures have cared for people vulnerable to hunger and malnutrition.¹⁰ Some have developed culture-wide practices¹¹ and laws to curtail food waste, giving useful extra food to the food insecure and making use of the rest for animals,¹² then the compost bin.¹³ Some ancient cultures practiced an ethic of generosity and resourcefulness that is seen in laws designed

See infra note 58; *see* AUSTIN, TEX., CODE OF ORDINANCES § 15-6-1(7) (2016) (refraining to define “organic,” triggering an interpretation based on context and common use, which points to (1) something living that (2) can decompose); *see* BOULDER, COLO., MUNICIPAL CODE § 6-3-2, -13 (2019) (regulating “compostables” without defining the term in § 6-3-2, and thus depending on a common understanding of the term).

⁹ *See infra* Part II.

¹⁰ For an insightful look at the differences between hunger and malnutrition – “hidden hunger” – see Alexander J. Stein, *The Poor, Malnutrition, Biofortification, and Biotechnology*, in THE OXFORD HANDBOOK OF FOOD, POLITICS, AND SOCIETY 149, 149–80 (Ronald J. Herring ed., 2015).

¹¹ For one noteworthy contemporary example of a culture-wide practice of subsistence and resourcefulness that addresses the culture’s use of food and its general savvy with utilizing all and wasting none, see Catherine E. Burnette et al., “*Living off the Land*”: *How Subsistence Promotes Well-Being and Resilience among Indigenous Peoples of the Southeastern United States*, 92 SOC. SERV. REV. 369 (2018). For a look into the effects of distance between those eating food and its production, such as a depreciation for food and its living character, which can lead to the food waste we see in the United States, *see infra* notes 96–111 and accompanying text. *See also* Michiel Korthals, *Ethics of Food Production and Consumption*, in THE OXFORD HANDBOOK OF FOOD, POLITICS, AND SOCIETY 231, 231–52 (Ronald J. Herring ed., 2015).

¹² *See generally* EMILY BROAD LEIB ET AL., LEFTOVERS FOR LIVESTOCK: A LEGAL GUIDE FOR USING FOOD SCRAPS AS ANIMAL FEED (2016) (providing a state-by-state synopsis of the legal landscape governing the use of leftover food for animals, and giving “hands in the dirt” details about how to implement such plans and cut back on the financial burden of sending food to a landfill).

¹³ Two countries implementing food waste reduction and recovery programs are South Korea and France. Douglas Broom, *South Korea Once Recycled 2% of its Food Waste. Now it Recycles 95%*, WORLD ECON. FORUM (Apr. 12, 2019), <https://www.weforum.org/agenda/2019/04/south-korea-recycling-food-waste/>; Rivka Galchen, *How South Korea Is Composting Its Way to Sustainability*, THE NEW YORKER (Mar. 2, 2020), <https://www.newyorker.com/magazine/2020/03/09/how-south-korea-is-composting-its-way-to-sustainability>; Eleanor Beardsley, *French Food Waste Law Changing How Grocery Stores Approach Excess Food*, NPR (Feb. 24, 2018, 5:28 PM), <https://www.npr.org/sections/thesalt/2018/02/24/586579455/french-food-waste-law-changing-how-grocery-stores-approach-excess-food>.

to prevent food waste and ensure that all members of their society were fed and nourished.¹⁴

Ancient Israel codified laws in the Torah with the purpose of feeding the food insecure.¹⁵ The laws mandated a practice meant to supply the needy with the excesses of the rich, to offer the poor the dignity of participation,¹⁶ and to set in stone an ethic of generosity by promoting a common right to food.¹⁷ Each time these laws were read,

¹⁴ See Paul Gorden Lauren, *The Foundations of Justice and Human Rights in Early Legal Texts and Thought*, in THE OXFORD HANDBOOK OF INTERNATIONAL HUMAN RIGHTS 163, 166–70 (Dinah Shelton ed., 2013) (discussing various ancient societies and religious traditions that commanded or encouraged generosity to the poor).

¹⁵ The gleaning laws in the Torah existed for the purpose of protecting the most vulnerable in society – widows, orphans, and non-citizens of Israel – who often lacked the means to buy or land to produce life-sustaining food. *Leviticus* 19:9–10; *Deuteronomy* 24:19–22; *Exodus* 23:10–11. These laws serve as an example of ancient written laws that addressed both food waste and the food insecure, and served as reminders of the duty of those who had enough toward those who had too little. There is only one record of these laws in practice, found in the book of Ruth. The short narrative tells the story of a destitute Israelite widow, Naomi, and her widowed immigrant daughter-in-law, the Moabitess Ruth, whose well-being becomes the focus of one of Naomi’s distant relatives, Boaz. *Ruth* 2. Boaz is a landowner and agriculturalist who ensures that his employees uphold the gleaning laws. *Ruth* 2. The gleaning laws of ancient Israelite society were designed at a time when most people were somehow involved in agricultural production. See MAYER SULZBERGER, STATUS OF LABOR IN ANCIENT ISRAEL 27 (1923). Normatively, people in the United States are not involved in the production, harvest, etc. of the food they eat. See *infra* note 21 and accompanying text. Obviously, the laws designed in the United States to reduce food waste and food insecurity will look different. The goals of those laws, though, should be similar and promote a cultural ethic of generosity wherein the beneficiaries also have the chance to preserve their dignity by participation.

¹⁶ *Deuteronomy* 24:19–22 commanded the landowner harvesting his land not to get overlooked grain and not to pick over branches and vines a second time, but three times was told to “[l]eave [the extra food] for the foreigner, the fatherless and the widow.” This indicates that those named as beneficiaries would come onto the land, then contribute their labor toward getting the extra that was left.

¹⁷ See Rabbi Jill Jacobs, *Jewish Attitudes Toward Poverty: How Much Should You Care?*, MY JEWISH LEARNING, <https://www.myjewishlearning.com/article/jewish-attitudes-toward-poverty/> (last visited Apr. 9, 2020). Today, the United Nations has called countries to recognize a common human right to food at Article 25 of the Universal Declaration of Human Rights and in Article 11 of the International Covenant on Economic, Social and Cultural Rights. G.A. Res. 217 (III) A, Universal Declaration of Human Rights, art. 25 (Dec. 10, 1948); International Covenant on Economic, Social and Cultural Rights art. 11, Dec. 16, 1966, 993 U.N.T.S. 3 (entered into force Jan. 3, 1976). See also *James* 5:1–6, which was written specifically to “the twelve tribes” of Jewish converts to Christianity in the first century, and addressed certain “rich people” who had cheated laborers of their wages and “lived on earth in luxury and self-indulgence . . . [and] fattened

the listeners to whom they pertained were reminded to actively participate in caring for the weak and most vulnerable in society by ensuring access to the same food they had at their disposal.¹⁸ Likewise, those experiencing food insecurity were reminded that their plight was not forgotten.¹⁹

The gleanings laws of ancient Israelite society were designed at a time when most people were somehow involved in agricultural production.²⁰ People in the United States are not generally involved in the production, cultivation, or harvest of the food they eat.²¹ Our agricultural²² and governmental²³ systems largely differ from those of Ancient Israel and pre-industrial agricultural societies.²⁴ What

[themselves] . . .” to see how this ethic of generosity to the poor was promulgated by this letter from to the early Jewish-Christian churches.

¹⁸ *Deuteronomy* 24:19–21 (calling for conscious action by landowners on behalf of the “the foreigner, the fatherless and the widow”); *Deuteronomy* 24:22 (calling the Israelites to remember their own captivity in Egypt as a motivator to care for the vulnerable among them). To see an example of a modern Jew hearing the Torah and seeing in its command a rich complexity while seeking a path of obedience to it, see Daniel Estrin, *How to Keep Farming When God Says to Stop*, THE WORLD (Oct. 28, 2014, 1:30 PM), <https://www.pri.org/stories/2014-10-28/how-keep-farming-when-god-says-stop>.

¹⁹ *Deuteronomy* 24:19–22.

²⁰ See SULZBERGER, *supra* note 15, at 27.

²¹ The most recent data on the number of “principal,” “second,” and “third” operators of U.S. farms dates back to the 2012 Census of Agriculture that calculated the number of all farmers in these categories at 3,180,074, which constituted about 1.2% of the estimated U.S. population of 312,780,968 on January 1, 2012. NAT’L AGRIC. STATISTICS SERV., U.S. DEP’T OF AGRIC., ACH12-3, FARM DEMOGRAPHICS: U.S. FARMERS BY GENDER, AGE, RACE, ETHNICITY, AND MORE 1 tbl.1 (2014), *available at*

https://www.nass.usda.gov/Publications/Highlights/2014/Farm_Demographics/Highlights_Farm_Demographics.pdf; *Census Bureau Projects U.S. Population of 312.8 Million on New Year’s Day*, U.S. CENSUS BUREAU (Dec. 29, 2011), <https://www.census.gov/newsroom/releases/archives/population/cb11-219.html>.

For 2018 statistics detailing the number and type of farms in operation in the United States, see ECON. RESEARCH SERV., U.S. DEP’T OF AGRIC., ECON. INFO. BULL. No. 203, AMERICA’S DIVERSE FAMILY FARMS (2018) [hereinafter AMERICA’S DIVERSE FAMILY FARMS], *available at*

<https://www.ers.usda.gov/webdocs/publications/90985/eib-203.pdf?v=8905.1>.

²² See generally ODED BOROWSKI, AGRICULTURE IN IRON AGE ISRAEL (1987).

²³ Ancient Israelite government was tribal, then eventually monarchical. See, e.g., EUGENE H. MERRILL, KINGDOM OF PRIESTS 147–55, 166–70, 207–10 (2008).

²⁴ This statement belies the reality that some American farmers have either never adopted or are abandoning the industrialized agricultural methods that require heavy inputs and whose sustainability is questionable. See *What Is Sustainable Agriculture?*, UNION CONCERNED SCIENTISTS (Apr. 10, 2017), <https://www.ucsusa.org/resources/what-sustainable-agriculture>; see AMERICA’S DIVERSE FAMILY FARMS, *supra* note 21 (discussing the wide range of farm types in the U.S.). For a discussion of “agroecological farming,” see Sarah Small, *How to*

does not differ from then to now is the presence of the food insecure among us.²⁵

For these reasons, the laws designed in the United States to reduce food waste and food insecurity look different. Nonetheless, the goals of our codes and regulations that address this dual food waste and insecurity problem need to be similar in their motives and cultural conspicuity, and thereby in their promotion of a society that engages an ethic of generosity. The irony of the juxtaposition of food insecurity and food waste in the United States is that there is enough wasted food to meet the dietary needs of the food insecure.²⁶

This Article argues that organic waste bans that promote more “preferred”²⁷ uses of food are an essential part of a legal infrastructure that addresses the devastating consequences of both food waste and food insecurity. When the legal and local infrastructures exist to support the goals of an organic waste ban, a ban can help: (1) mitigate the impacts of food waste; (2) incentivize an ethic of generosity among those subject to a ban that benefits the giver as well as the recipient; (3) provide the food insecure with much needed food and dignity; and (4) change the culture where food waste practices are common, accepted, and debilitating in unseen and unnoticed ways.

Part I discusses pertinent issues of food insecurity as it relates to the “wicked problem”²⁸ of food waste, evaluating its impact on the economy and environment, and arguing that local governments are the best suited to handle these problems. Part II discusses the structure and functions of current organic waste bans and proposes that composting should either be dissociated or deemphasized as the main destination for food waste. Part III argues that certain federal and state laws need to be redesigned so that

Leave Industrial Agriculture Behind, FOOD TANK, <https://foodtank.com/news/2016/06/how-to-leave-industrial-agriculture-behind/> (last visited Apr. 20, 2020).

²⁵ For one Arkansas example of this, see *No Arkansan Should Ever Go to Bed Hungry*, ARK. HUNGER RELIEF ALLIANCE, <https://arhungeralliance.org/> (last visited Apr. 20, 2020) [hereinafter ARK. HUNGER RELIEF ALLIANCE] (reporting that nearly 20% of Arkansans in 2018 experienced food insecurity).

²⁶ Nicole Civita & Erin Shirl, *Commentary: Law of Food Conservation*, BIOCYCLE (Dec. 15, 2015), <https://www.biocycle.net/commentary-law-of-food-conservation/>.

²⁷ *Food Recovery Hierarchy*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy> (last updated Dec. 31, 2020).

²⁸ Sarah J. Morath, *Regulating Food Waste*, 48 TEX. ENVTL. L. J. 239, 248–50 (2018).

organic waste bans can achieve the goal of putting food “waste” to its best uses while incentivizing entities that are covered by the bans.

I. Food Insecurity Laws and Food Waste in the United States

Merriam-Webster's Dictionary defines food as "something that nourishes, sustains, or supplies."²⁹ Food serves none of these purposes when it is dumped in a landfill. Instead, the cultural habit of wasting food wreaks havoc on the economy, expends our natural resources, and hurts the people it is meant to nourish and sustain. This Part first discusses pertinent issues of food insecurity and causes of food waste. It then further examines the impact of food waste on the economy and environment, and argues that local governments are the best suited to handle the problem.

A. Food Insecurity in the United States

Some estimate that 50 million Americans experienced some form of food insecurity in 2015.³⁰ Three years later, the USDA reported that "11.1 percent (14.3 million households) [in the United States] were food insecure at some time during the year," placing the total number of individuals who experienced food insecurity at 37.2 million.³¹ The USDA report on household food insecurity in the same year estimated that "[a]bout 56 percent of food-insecure households reported receiving assistance from one or more of the three largest Federal [sic] food and nutrition assistance programs during the month prior to the December 2018 food security survey."³² No matter the exact percentage, it is clear that not all households experiencing food insecurity are receiving federal food assistance of any kind. These federal assistance programs, and many local programs,³³ demonstrate an underlying ethic of generosity in our country.

²⁹ *Food*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/food> (last visited Jan. 20, 2020).

³⁰ Civita & Shirl, *supra* note 26; see INST. OF MED. & NAT'L RESEARCH COUNCIL, SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM: EXAMINING THE EVIDENCE TO DEFINE BENEFIT ADEQUACY 27 (Julie A. Caswell & Ann L. Yaktine eds., 2013) [hereinafter Caswell & Yaktine] (estimating the number of Americans assisted by SNAP in 2011 to be 46 million).

³¹ COLEMAN-JENSEN ET AL., *supra* note 5, at 6, 7 tbl.1A. The disparity between these estimates has to do with how food insecurity is defined and by the actual statistical surveys conducted.

³² *Id.* at 30–34 (estimating the number of households receiving benefits from the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the National School Lunch Program).

³³ For one example in Arkansas, see ARK. HUNGER RELIEF ALLIANCE, *supra* note 25. See also Furbank, *supra* note 4.

However, these programs have their shortcomings, including their inability to serve the needs of many food insecure households.³⁴

Funding for SNAP and other federal food assistance programs is authorized by the Farm Bill,³⁵ which changes names with almost each passing.³⁶ The earliest of these bills, the Agricultural Adjustment Act of 1933 and the Agricultural Act of 1949, aimed to prevent food waste at the farm level through subsidization.³⁷ In 1933, the country was in the throes of the Great Depression.³⁸ The Agriculture Adjustment Act of 1933 was passed “to establish and maintain such balance between the production and consumption of agricultural commodities... as will reestablish prices to farmers...”³⁹ The 1949 Act declared the “Disposition of Commodities to Prevent Waste” as one explicit purpose of the Act.⁴⁰ Economic stability for the farmer was upheld by the corollary

³⁴ See BAYLEN LINNEKIN, BITING THE HAND THAT FEEDS US: HOW FEWER, SMARTER LAWS WOULD MAKE OUR FOOD SYSTEM MORE SUSTAINABLE 11 (2016). No matter the federal food programs, which undoubtedly reach many in need of a meal, there are still many people experiencing food insecurity in the United States on a daily basis, and additional funding of federal assistance programs appears to “promote, rather than combat, food waste.” *See id.* *See generally* Food & Nutrition Serv., *Supplemental Nutrition Assistance Program (SNAP)*, U.S. DEP’T AGRIC., <https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program> (last visited Apr. 16, 2020). Also see, e.g., Irene Li, *Let’s Really Talk About SNAP and Food Insecurity*, THE ARTERY (Apr. 9, 2019), <https://www.wbur.org/artery/2019/04/09/snap-commentary-food-insecurity>, for a discussion of the current and ever-raging battle between the executive and legislative branches over funding for SNAP and the effort of the executive branch to bypass Congress’s refusal to cut funding for SNAP by passing an administrative regulation that will reduce household eligibility for SNAP. The article also highlights some of the major problems that exist and frustrate the purposes for which SNAP was created. *See id.* *See also* COLEMAN-JENSEN ET AL., *supra* note 5, at 30–34 (estimating that of households experiencing food insecurity, SNAP benefits were available to an estimated 45.7% in 2018).

³⁵ RANDY ALISON AUSSENBERG & KARA CLIFFORD BILLINGS, CONG. RESEARCH SERV., IFI 1087, 2018 FARM BILL PRIMER: SNAP AND NUTRITION TITLE PROGRAMS (2019), available at <https://fas.org/sgp/crs/misc/IFI11087.pdf>.

³⁶ *See United States Farm Bills*, NAT’L AGRIC. L. CTR., <https://nationalaglawcenter.org/farmbills/> (last visited Apr. 20, 2020).

³⁷ Agricultural Adjustment Act of 1933, Pub. L. No. 73-10, 48 Stat. 31; Agricultural Act of 1949, Pub. L. 108-498, § 416 (codified at 7 U.S.C. § 1431 (1949)).

³⁸ *See, e.g.*, Gene Smiley, *Great Depression*, LIBRARY ECON. & LIBERTY, <https://www.econlib.org/library/Enc/GreatDepression.html> (last visited Apr. 5, 2020) (citing numerous other volumes that can inform the interested reader of this period of United States history).

³⁹ Agricultural Adjustment Act of 1933, tit. I, § 2(1).

⁴⁰ Agricultural Act of 1949 § 416.

purpose of food waste prevention.⁴¹ Congress expended funds at this stage with the outspoken goal of preventing “the waste of commodities” and foods from the farm.⁴²

In 1961, President Kennedy issued Executive Order 10914, which made clear that the primary purpose of the federal government’s food assistance programs was relief for households in need.⁴³ It sought to accomplish this by taking “agricultural abundance” and “mak[ing] [it] available for distribution.”⁴⁴ The Kennedy Administration saw the disconnection between the great number of “needy persons” in the country and excess food production on farms.⁴⁵ However, this policy shift has likely had unintended consequences.

Now, the law that was intended to prevent food waste at its inception has led to increased waste.⁴⁶ Farmers are being subsidized to fuel the federal programs and are granted subsidies based on crop density per acre and type of crop grown, encouraging wasteful practices in the name of federal generosity.⁴⁷ The Farm Bill that funds these practices seeks to develop a food system in the United States that is intelligent and holistic, “encompass[ing] farm commodity revenue supports, agricultural conservation, trade and foreign food assistance, farm credit, research, rural development, forestry, bioenergy, horticulture, and domestic nutrition assistance.”⁴⁸ “SNAP, WIC, and the National School Lunch Program are essential in our country’s war on poverty and hunger.”⁴⁹

When viewed through the lens of how much food is wasted in the United States, the number of people experiencing food insecurity is irreconcilable. Locally led food laws that benefit from community initiative and planning, along with federal and state level

⁴¹ *Id.*

⁴² *Id.*

⁴³ Exec. Order No. 10914, 26 Fed. Reg. 639 (Jan. 24, 1961).

⁴⁴ *Id.*

⁴⁵ *See id.*

⁴⁶ LINNEKIN, *supra* note 34, at 66–67, 112–17.

⁴⁷ *Id.* at 66–78, 112–13.

⁴⁸ RENÉE JOHNSON & JIM MONKE, CONG. RESEARCH SERV., RS22131, WHAT IS THE FARM BILL?, at Summary (2019), *available at* <https://crsreports.congress.gov/product/pdf/RS/RS22131>.

⁴⁹ Mary K. Bedard, *Hunger Games in the Capital*, 42 U. DAYTON L. REV. 283, 290 (2017).

support, are needed to more effectively address and decrease food insecurity and food waste.⁵⁰

B. Food Waste

Food waste is defined by the USDA as “a component of food loss⁵¹ and occurs when an edible item goes unconsumed, as in food discarded by retailers due to color or appearance and plate waste by consumers.”⁵² Food waste is good food that for some reason ends up in a landfill. So, the term “food waste” describes the human practice of throwing away good, nutritious, edible food, and does not serve as a descriptor of the quality or nature of the food itself. “Organic waste” differs from “food waste” as it refers to anything that is “biodegradable,” whether fit for consumption or more suitable for a compost heap or as animal scraps.⁵³ Organic waste encompasses food waste, and both are addressed by organic waste bans.

This section first describes some of the reasons for food waste from farm to table, then discusses the economic repercussions

⁵⁰ This is not the first assertion of this proposition. All kinds of food laws are needed beyond an organic waste ban to effectively address these problems. *See, e.g.,* LINNEKIN, *supra* note 34 at 122–23; Civita & Shirl, *supra* note 26; Bedard, *supra* note 49, at 293.

⁵¹ Food loss is defined by the Economic Research Service, a branch of the USDA, “as the amount of food available for human consumption—after removing bones, pits, peels, and other nonedible parts—that is not consumed for any reason,” including incidental losses such as moisture losses and food shrinkage while food is being cooked, and accidental losses from such mishaps as “inadequate climate control” in storage and during transportation, losses to pests, spills, and the like. Jean C. Buzby et al., Econ. Research Serv., *Food Loss—Questions About the Amount and Causes Still Remain*, U.S. DEP’T AGRIC. (June 2, 2014), <https://ers.usda.gov/amber-waves/2014/june/food-loss-questions-about-the-amount-and-causes-still-remain>.

⁵² Econ. Research Serv., *Food Availability (Per Capita) Data System*, U.S. DEP’T AGRIC., <https://www.ers.usda.gov/data-products/food-availability-per-capita-data-system/faqs/> (last updated Jan. 9, 2020).

⁵³ *See What You Need to Know About Organic Waste*, PEGEX HAZARDOUS WASTE EXPERTS (Aug. 22, 2014), <https://www.hazardouswasteexperts.com/what-you-need-to-know-about-organic-waste/>. The hazardous waste experts at PEGEX define organic waste as “biodegradable waste . . . a natural refuse type that comes from plants or animals. It comes in manifold forms – biodegradable plastics, food waste, green waste, paper waste, manure, human waste, sewage, and slaughterhouse waste.” *Id.* PEGEX, Hazardous Organics, or “organic waste,” are defined in California by inclusion, and the list contains “food waste,” which likely is referring to any food thrown away, “[l]andscape trimmings,” “[n]on-hazardous wood waste,” and “[c]ompostable paper.” *Mandatory Commercial Organics Recycling*, CALI. DEP’T RESOURCES RECYCLING & RECOVERY, <https://calrecycle.ca.gov/recycle/commercial/organics> (last updated Oct. 28, 2020).

of this waste, and then briefly summarized some of the environmental impacts of food waste.

Food losses experienced in the food ecosystem⁵⁴ include: farm-level waste;⁵⁵ losses that occur in transportation;⁵⁶ grocery

⁵⁴ See generally EMILY BROAD LEIB ET AL., HARVARD FOOD LAW & POLICY CLINIC, KEEPING FOOD OUT OF THE LANDFILL: POLICY IDEAS FOR STATES AND LOCALITIES 1 (2016) [hereinafter KEEPING FOOD OUT].

⁵⁵ See *id.* (“On the farm, low market prices, high labor costs, and a market that demands perfect-looking produce leads farmers to leave food unharvested in the field.”). Unharvested produce due to lack in market demand is a major reason for such waste because the expenditures of harvesting a crop will exceed the market value of the crop upon sale. Gosia Wozniacka, *Study Finds Farm-Level Food Waste is Much Worse Than We Thought*, CIVIL EATS (Aug. 20, 2019), <https://civileats.com/2019/08/20/study-finds-farm-level-food-waste-is-much-worse-than-we-thought/>. See Bev Flatt, *Minimizing Food Waste on Farms*, U.S. FARMERS & RANCHERS IN ACTION (June 3, 2020), <https://usfarmersandranchers.org/stories/food-trends-culture/minimizing-food-waste-on-farms/>, for an overview of the main obstacles that lead to farm-level food waste – overproduction to mitigate risk, weather, food safety rules, cosmetics and labor.

⁵⁶ KEEPING FOOD OUT, *supra* note 54, at 1 (citing wasted fossil fuels used to fuel the vehicles that transport food that ends up being wasted). Some losses of this kind are inevitable due to mechanical failure either of the transporting vehicle or refrigeration systems, which leads to discussions about the growing emphasis on and prevalence of local food systems. See generally ROBINSON & FARMER, *supra* note 4, at xiii–xvi.

store and retail-level food waste;⁵⁷ overconsumption⁵⁸ at home⁵⁹ and restaurants,⁶⁰ which dovetails with an expectation of large servings at restaurants and for at-home meals, leading to the cyclical problem wasted consumer and restaurant purchases;⁶¹ and food wasted by consumers at home.⁶²

⁵⁷ DANA GUNDERS ET AL., NAT. RES. DEF. COUNCIL, WASTED: HOW AMERICA IS LOSING UP TO 40 PERCENT OF ITS FOOD FROM FARM TO FORK TO LANDFILL 10–11 (2017) [hereinafter WASTED], available at <https://www.nrdc.org/sites/default/files/wasted-2017-report.pdf>. Over-sized servings are a major source of food waste in many restaurants. See Dana Gunders, *Super Size, Super Waste: What Whopping Portions Do to the Planet*, GRIST (Oct. 15, 2012), <https://grist.org/food/super-size-super-waste/>. For a brief history of “ever-expanding portion sizes” in the United States, see *id.* Restauranters have many proven options for offering health and economic benefits to the consumer, along with cost-savings to themselves. See REFED, RESTAURANT FOOD WASTE ACTION GUIDE *passim* (2018).

⁵⁸ Overconsumption is not a uniquely American problem in place or time. See, e.g., Jeffrey R. Wilson, *Obesity in Shakespeare*, HARVARD UNIV., <https://wilson.fas.harvard.edu/stigma-in-shakespeare/obesity-in-shakespeare> (last visited Feb. 24, 2021); DANTE ALIGHIERI, *THE INFERNO* 65–70 (John Ciardi trans., Rutgers Univ. Press 1954) (1320) (reserving a circle of the infernal place of the dead for those whose chief sin was “gluttony,” or the overconsumption of food); *Proverbs* 23:1–3, :21; *Titus* 1:12 (quoting the Cretan Epimenides, who is purported to have written, “Cretans are always liars, evil brutes, lazy gluttons”). Food waste from over-portioning exacerbates this problem. See Zach Conrad et al., *Relationship Between Food Waste, Diet Quality, and Environmental Sustainability*, 13 PLoS ONE, Apr. 2018, at 1, 12, <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0195405&type=printable>; Selina Juul, *How to Control Portions and Reduce Food Waste*, HUFFPOST, https://www.huffpost.com/entry/portion-control-reduce-food-waste_b_9022674 (last updated Dec. 6, 2017). For a discussion of food security in the United States and how our societal approaches to its alleviation may contribute to the prevalence of two diseases we seek to reduce, see David V. Fazzino II, *Whose Food Security? Confronting Expanding Commodity Production and the Obesity and Diabetes Epidemics*, 15 DRAKE J. AGRIC. L. 393 *passim* (2010).

⁵⁹ In addition to the routine food waste associated with households, stockpiling has become a waste issue during the Covid-19 pandemic. Brenna Ellison & Maria Kalaitzandonakes, *Food Waste and Covid-19: Impacts Along the Supply Chain*, 10 FARMDOC DAILY, Sept. 2020, at 1, 3, <https://farmdocdaily.illinois.edu/wp-content/uploads/2020/09/fdd100920.pdf>. See Juul, *supra* note 58, for a mile-high glimpse of some factors that have led to at-home food waste – larger refrigerators, shopping cart sizes, tendency to overbuy to take advantage of a deal, among others.

⁶⁰ Buzby et al., *The Value of Retail- and Consumer-Level Fruit and Vegetable Losses in the United States*, 45 J. CONSUMER AFFS. 492, 497 (2011).

⁶¹ *Id.*

⁶² WASTED, *supra* note 57, at 10–11. “Plate waste” is also defined by the USDA in the context of the USDA’s “school nutrition programs [that] include the National School Lunch Program (NSLP) and the School Breakfast Program (SBP),” but is applicable to the “consumer and foodservice level.” JEAN C. BUZBY & JOANNE F. GUTHRIE, ECON. RESEARCH SERV., U.S. DEP’T OF AGRIC., E-FAN-02-009, PLATE

Retail grocers and restaurants generally waste food for different reasons. Some of the main reasons for grocer and retailer food waste are initial rejections by the grocer of food shipments that do not meet its criteria for shape, sight, and size⁶³ and the failure to

WASTE IN SCHOOL NUTRITION PROGRAMS: FINAL REPORT TO CONGRESS, at iii, 1 (2002), available at <https://naldc.nal.usda.gov/download/48204/PDF>. Plate waste is “generally defined as the quantity of edible portions of food served that is uneaten” or “discarded.” *Id.* Plate waste is attributable to a range of factors that may include “wide variation in student appetites and energy needs, difference between meals served and student preferences, scheduling constraints that interfere with meal consumption or result in meals being served when children are less hungry, and availability of substitute foods from competing sources.” *Id.* at iii. *Cf.* LINNEKIN, *supra* note 34, 111–23. In thinking of “scheduling constraints,” the numerous occasions that my children’s lunch boxes have returned half-full come to mind. My initial frustration over this seeming lack of interest in the fruit and vegetable choices in their lunches was mislaid (1) because they often did/do request and eat those foods and (2) because they often ate those foods placed in their lunches. My frustration converted to understanding after sharing lunch with my kids at their school a couple of times. Although I understand that there are many other time constraints on the school day, their lunch periods appeared to be far short of what most students needed to finish their meals in the midst of the normal socializing and lunchroom conversation that happens among elementary-aged kids. Regarding plate waste in homes with young children, an apparently ubiquitous problem, see, e.g., Laura Durenberger, *19 Ways to Prevent Food Waste With Kids*, REDUCE, REUSE, RENEW (Oct. 3, 2019), <https://reducereuserenewblog.com/howtopreventfoodwastewithkids/>. Organic waste bans may serve to help local communities, including families with young children, and schools, to begin thoughtfully addressing ways to prevent and resource food “waste.” See E. Broad Leib et al., *Organic Waste Bans and Recycling Laws to Tackle Food Waste*, BIOCYCLE (Sept. 11, 2018), <https://www.biocycle.net/organic-waste-bans-recycling-laws-tackle-food-waste/>. Several states and local governments have designed their bans to include “multi-family residential” units and other residential communities. See, e.g., BOULDER, COLO., MUNICIPAL CODE § 6-3-13 (2019). This “plate waste” issue raises further questions such as how plate waste differs from one home to another based on socio-economic and ethnic and cultural background factors, how many of the adults in the home work full-time outside the home, how many children live in the home and their ages. Food waste, plate waste, and other like descriptors describe an interconnected web of factors that are contributing to these problems.

⁶³ See WASTED, *supra* note 57, at 4. Part of the problem here is also that consumers are told what to want by the USDA. See LINNEKIN, *supra* note 34, at 124–28. There are many calling retailers to push a different message and advocate for food that is shaped or colored differently than currently expected. WASTED, *supra* note 57, at 16; see Food and Agric. Org. of the United Nations [FAO], *The State of Food and Agriculture: Moving Forward on Food Loss and Waste Reduction*, at 55 (2019) [hereinafter *Moving Forward*], <http://www.fao.org/3/ca6030en/ca6030en.pdf> (describing some obstacles faced by retailers and restaurants to implement food waste reduction). See also *The Project*, FRUTA FEIA, <https://frutafeia.pt/en/the-project> (last visited Feb. 24, 2021), a Portuguese organization whose motto is “Beautiful People Eat Ugly Fruit,” and whose “main goal is to reduce tons of good quality food that are thrown back to the land by farmers every year and, also to prevent the unnecessary use of

sell or donate produce before it rots.⁶⁴ The main drivers of food waste at restaurants include consumer expectation of large portion sizes⁶⁵ and the practices of buffet-style restaurants.⁶⁶ These restaurant practices and consumer expectations are ingrained in the American psyche, and overcoming the obstacle of our own expectations that lead to more food in landfills will be difficult.⁶⁷

resources on their production, such as water, arable land, energy and working hours.” This organization describes their purpose: “By changing consumption patterns, this project intends that in the future all quality fruits and vegetables are marketed equally, regardless of their size, colour and shape,” and further stating that “[a]longside this local impact, we hope to raise awareness of the population to the food waste problem, as well as the fact that ‘ugly food’ can be of good quality[, which] enables people to have access to food that is cheaper and produced locally.” *Id.*

⁶⁴ See Suzanne Goldenberg, *Half of All US Food Produce Is Thrown Away, New Research Suggests*, THE GUARDIAN (July 13, 2016), <https://www.theguardian.com/environment/2016/jul/13/us-food-waste-ugly-fruit-vegetables-perfect>.

⁶⁵ See, e.g., *Solutions for Restaurants*, WASTE MANAGEMENT, <https://www.wm.com/us/en/business/restaurant> (last visited Feb. 24, 2021), which details one of the country’s largest waste management company’s offerings for the disposal of its restaurant patrons’ waste, which includes food and organic recycling. No matter the offerings available to restaurants, if the cost to dispose of organic waste in a way that is environmentally responsible is ultimately borne by the restaurant, many restaurants are going to opt for the cheapest waste disposal option(s) available. Their profit margins are typically already slim and depend on watching expenditures at every level. Mary Ellen Biery, *Restaurants’ Margins Are Fatter, but Competition Is Fierce*, FORBES (Jan. 26, 2018), <https://www.forbes.com/sites/sageworks/2018/01/26/restaurants-margins-are-fatter-but-competition-is-fierce/#3d4b398d27f9>.

⁶⁶ *The Problem of Food Waste*, FOODPRINT, <https://foodprint.org/issues/the-problem-of-food-waste/> (last visited Feb. 24, 2021). See Dave Roos, *Why Restaurants Love Buffets Even More than You Do*, HOWSTUFFWORKS (Apr. 25, 2018), <https://money.howstuffworks.com/why-restaurants-love-buffets-even-more-than-do.htm>, for a short exposition of the philosophy undergirding a United States buffet-style restaurant.

⁶⁷ See WASTED, *supra* note 57, at 4. The American perspective on what is waste, refuse or rubbish has dramatically shifted since the beginning of the nation’s history. See SUSAN STRASSER, *WASTE AND WANT: A SOCIAL HISTORY OF TRASH 4* (1999). This shift is toward a view of physical objects as easily replaceable and encompasses food items as much as a plastic cup or a piece of clothing manufactured for the quick fashion industry. See *id.* at 4–5. This shift in perspective on the usefulness and value of an item is not an aged perspective and has its roots largely in post-War American affluence and the culture of marketing that guided people toward a culture of wastefulness only in recent times being unveiled for its detrimental environmental effects, not to mention its holistic impact on the people who hold it, often blindly. See *id.* at 12–14; see *supra* notes 68–72 and accompanying text.

Globally, food waste has existed to some degree for millennia depending on the region and culture.⁶⁸ Food waste in the United States today is vast compared to most other countries.⁶⁹ It is estimated that the average American throws away roughly four hundred pounds of food per year, equaling 1,250 calories per day, totaling a loss of up to \$218 billion in 2018.⁷⁰ The United States bears

⁶⁸ See Anders Högberg, *Waste, Very Much a Social Practice*, in *ARCHAEOLOGIES OF WASTE: ENCOUNTERS WITH THE UNWANTED* 59, 59 (Daniel Sosna & Lenka Brunclíková eds., 2017). The nature of waste and garbage changes based on the culture, and based even on changes from one generation to the next within the same culture. See, e.g., *id.* See also EIKO MARUKO SINIAWER, *WASTE: CONSUMING POSTWAR JAPAN* 126–28 (2018). Some ancient and modern cultures have been known to be more averse to wasting any part of an animal or grains, using leftover grains to brew fermented beers and drinks. See, e.g., Rosemary Ellison, *Methods of Food Preparation in Mesopotamia (c. 3000-600 BC)*, 27 *J. ECON. & SOC. HIST. ORIENT* 89, 89, 93 (1984) (discerning that many ancient Mesopotamian cultures' approach to food preparation likely resulted not only in little wasted food, but also in very little waste of any kind, particularly from animal carcasses). To hearken back to Ancient Israel, their heritage – the Wilderness Years in the Sinai Desert – is vividly marked by the collective experience of daily supplies of manna and quail while in the desert with the command that no more than was needed by a household be collected on a given day, a theme mirrored in the Lord's Prayer – "give us this day our daily bread." See *Exodus* 16:4–5; *Matthew* 6:11; *Luke* 11:3. Also worth consideration is the furthering of this ethic found in the Parable of the Rich Fool, who thought that he "had it made" when his harvest was so abundant that he had to build bigger barns to store it all away, only to find it all ripped from him unexpectedly. *Luke* 12:16–21. The security of abundance can often lead to the tragedy of abundant loss. No such ethic can be found in American society. Federal food assistance programs and local food banks keep us mindful of the need to help the needy, but these programs are not or no longer, in the case of SNAP, meant to curb food waste directly. See *supra* notes 35–49 and accompanying text. The several states and municipalities who have passed organic waste bans are seeking to change this undercurrent in their communities. See *Food is Not Trash: Redefining Wellesley's Waste Culture by Composting* (Spring 2013) (unpublished capstone thesis, Wellesley College), available at <https://www.wellesley.edu/sites/default/files/assets/departments/environmentalscience/files/es300-2013-foodisnottrash.pdf>, for one example of food waste, laws or regulations we pass to combat it, and the culture.

⁶⁹ Adam Chandler, *Why Americans Lead the World in Food Waste*, *THE ATLANTIC* (July 15, 2016), <https://www.theatlantic.com/business/archive/2016/07/american-food-waste/491513/>.

⁷⁰ WASTED, *supra* note 57, at 4, 48 n.2 (citing JEAN C. BUZBY ET AL., *ECON. RESEARCH SERV., U.S. DEP'T OF AGRIC., ECON. INFO. BULL. NO. 121, THE ESTIMATED AMOUNT, VALUE, AND CALORIES OF POSTHARVEST FOOD LOSSES AT THE RETAIL AND CONSUMER LEVELS IN THE UNITED STATES* (2014), available at https://www.ers.usda.gov/webdocs/publications/43833/43680_eib121.pdf (stating that "[t]his estimate does include retail and foodservice losses, but does not include food lost on farms. In the ReFED report, it's estimated that 10 million tons of food is lost on farms, which would equate to approximately an additional 60 pounds per capita per year.")).

the shame of being the world leader in food wasted.⁷¹ Food waste is straining our society and environment in ways that were unforeseen several decades ago.⁷²

In this diverse country, “wasting food emerges as an embarrassing unifier.”⁷³ It has become a cultural practice, but this is not who we have always been. Americans were once widely adept at utilizing every leftover, each cooking byproduct, and all parts of animals and plants to make more meals and feed domesticated animals.⁷⁴ Greases from animal fat were used to make items like candles and soap.⁷⁵ Even animal bones were used to make knife handles, hair ornaments, and game pieces.⁷⁶ The American culture of waste began to emerge in the affluent years of the 1920s, declined during the years of the Great Depression, then surged again following World War II.⁷⁷ While people responded to the needs of the Great Depression and World War II, a culture of wastefulness was shunned and efficiency and resourcefulness embraced by necessity.⁷⁸ Want and need necessitated resourcefulness, and were badges of honor in the name of patriotism during the War years.⁷⁹ Now, excessive harvests partly due to subsidized agriculture have led to an overabundance of food in the United States, much of which ends up in the landfill.⁸⁰

⁷¹ See *id.* at 10–11.

⁷² *Id.* at 4, 48 n.6; see Jenny Gustavson, Food and Agric. Org. of the United Nations [FAO], *Global Food Losses and Food Waste: Extent, Causes, and Prevention*, at 1 (2011), <http://www.fao.org/3/mb060e/mb060e.pdf>.

⁷³ WASTED, *supra* note 57, at 4.

⁷⁴ Morath, *supra* note 28, at 239–40.

⁷⁵ *Id.*

⁷⁶ *Id.*; see STRASSER, *supra* note 67, at 3–10, 28–38, 102–06.

⁷⁷ See WASTED, *supra* note 57, at 28; see STRASSER, *supra* note 67, at 161–201, 203–27, 265–93; see Terrence H. Witkowski, *World War II Poster Campaigns: Preaching Frugality to American Consumers*, 32 J. ADVERTISING 69, 70 (2003).

⁷⁸ See Tom Scott-Smith, *Military Feeding During World War II*, in ON AN EMPTY STOMACH: TWO HUNDRED YEARS OF HUNGER RELIEF 90, 90–105 (2020) (discussing the underlying ethics of hunger relief agencies and their impact on wartime provisioning of soldiers). See also *Unifying a Nation: World War II Posters from the New Hampshire State Library*, NH.GOV, <https://www.nh.gov/nhsl/ww2/sacrifice.html> (last visited Apr. 9, 2020). See generally Witkowski, *supra* note 77, for a background regarding on American consumption and the governmental use of posters to promote frugality and resourcefulness.

⁷⁹ See STRASSER, *supra* note 67, at 228–63; see Witkowski, *supra* note 77, at 70; see Morath, *supra* note 28, at 262.

⁸⁰ See Jacqueline Dufalla, *Agricultural Overproduction and the Deteriorating Environment*, E-INT’L RELATIONS (July 7, 2016), <https://www.e-ir.info/2016/07/07/agricultural-overproduction-and-the-deteriorating-environment/>.

Food waste wreaks havoc on the economy and the environment. The USDA calculated the food losses experienced in the United States in 2010 as \$161 billion,⁸¹ and this only accounted for the value of the food if sold at the retail level.⁸² This number does not reveal the deeper costs of food waste to the economy – opportunity costs, fossil fuel and input consumption to produce the food, food transportation costs, and the increases in the prices of food to account for some of these losses.⁸³ Food waste causes seen, unseen, and largely unnecessary economic strain on our economy.

When food is wasted, the resources expended to produce the food are also wasted.⁸⁴ A recently published USDA study found that current food waste levels exhaust “over 30 million acres... of cropland, representing 7.7% (7.5%-7.9%) of all harvested cropland in the U.S.”⁸⁵ The exhaustion of the lands used to grow wasted food differs from one food type to another. For example, lands used to produce fruits and vegetables, the most wasted of all foods,⁸⁶ are wasted at a rate of over 60% and 56%, respectively,⁸⁷ whereas lands used to produce nuts are only about 2.3% wasted when seen through this net production wasted spectrum.⁸⁸ Some of the difference between these waste rates can be attributed to the shelf life of the food grown, with produce rotting at a much quicker rate on and off the vine that leads, in part, to this vast amount of waste.⁸⁹

This same study found that “[n]early 4.2 trillion gallons... of irrigation water were applied to cropland that was used to produce uneaten food.”⁹⁰ Again, most of the water waste was due to the production of eventually wasted produce, no matter where the waste occurred.⁹¹ This is accompanied by the “780 million pounds... of pesticides... applied to wasted cropland,” and the billions of pounds

⁸¹ *Food Waste FAQs*, U.S. DEP’T AGRIC.,

<https://www.usda.gov/foodlossandwaste/faqs> (last visited Apr. 6, 2020).

⁸² *See id.*

⁸³ *See id.*

⁸⁴ *Too Precious for the Bin*, EAT RESPONSIBLY,

<https://www.eatresponsibly.eu/en/foodwaste/1#section-bin> (last visited Apr. 16, 2020) (providing an interactive look at how food waste results in wasted resources in industrialized countries).

⁸⁵ Conrad et al., *supra* note 58, at 7.

⁸⁶ *Id.* at 7, 11.

⁸⁷ *Id.* at 7.

⁸⁸ *Id.*

⁸⁹ *Id.* at 12.

⁹⁰ *Id.* at 7.

⁹¹ *Id.*

of nitrogen fertilizer, phosphorus, and potash fertilizer, which are used mostly in the production of “feed grains and oilseeds and hay.”⁹²

The USDA study specifically addresses “[t]he conventional wisdom [that has held] that higher quality diets have less environmental impact.”⁹³ While not denying the sustainability issues “of producing animal-sourced foods, especially beef,” the study strives for a holistic look at the issue of sustainability by addressing food waste as a sustainability factor.⁹⁴ The issue is that although “[h]igher quality diets [that] contain[] greater amounts of fruits and vegetables... require far less land to produce compared to many other foods,” making it appear that such diets are more sustainable, the “substantially greater proportion of fruits and vegetables” “wasted in high proportions carries environmental burdens as well.”⁹⁵

Many also point to governmental food subsidies and crop insurance as a major contributor to food waste.⁹⁶ “Crop insurance serves as a risk management tool for farmers that protects against losses in yield, crop revenue, and whole farm revenue.”⁹⁷ The ARC model of government agricultural subsidies is based on average crop yield per acre, so if a farmer produces more, then he “can expect to receive [more income] per planted acre”, no matter the decrease in market value of the crop, and this often leads to both higher government expenditure and higher risk of waste.⁹⁸ This often wasteful approach is worsened by the fact that the risk of these losses and other risks of monocultural farming are usually not borne by farmers.⁹⁹

⁹² *Id.*

⁹³ *Id.* at 2, 11.

⁹⁴ *Id.* at 11.

⁹⁵ *Id.*

⁹⁶ LINNEKIN, *supra* note 34, at 68–79; Alexandra I. Evans & Robin M. Nagele, *A Lot to Digest: Advancing Food Waste Policy in the United States*, 58 NAT. RESOURCES J. 175, 187–88 (2018).

⁹⁷ Evans & Nagele, *supra* note 96, at 187.

⁹⁸ *Id.* at 187–88; Saed Alizamir et al., *An Analysis of Price vs. Revenue Protection: Government Subsidies in the Agriculture Industry*, 65 MANAGEMENT SCI. 32, 44–45 (2018); UNION OF CONCERNED SCIENTISTS, *SUBSIDIZING WASTE: HOW INEFFICIENT US FARM POLICY COSTS TAXPAYERS, BUSINESSES, AND FARMERS BILLIONS 1–3* (2016), available at <https://www.ucsusa.org/sites/default/files/attach/2016/08/Subsidizing-Waste-full-report.pdf>.

⁹⁹ UNION OF CONCERNED SCIENTISTS, *supra* note 98, at 1–2 (“Farmers and landowners who bear too little of the risk of farming tend to make planting decisions that lead to poor outcomes for the wider environment.”).

Wherever food waste occurs, resources are lost, and many of these carry with them risks to the surrounding environment.¹⁰⁰ These include: the risk of degrading the atmosphere¹⁰¹ and terrestrial and various water environments from the use of fertilizers to grow food that goes unused; human health concerns and animal and insect mortality from exposure to pesticides; and “groundwater depletion, water quality degradation, and competition for drinking water, among other impacts” from irrigation for foods that go to waste.¹⁰²

What we know is that food waste means wasted money, undermining much of the hard work of production, storage, transportation, distribution and preparation. It means that food prices for consumers must compensate for these losses. It means that a lot of fertilizers and pesticides that present harms to the surrounding environments are unnecessarily used, and that water that could be used otherwise helps grow food that gets dumped.

II. Organic Waste Bans

Organic waste bans are an effective way to address the problems outlined above. They also may serve to incite a cultural attitude shift toward food waste that must accompany any long-term mitigation of the problems of food waste and insecurity because “[w]hat we do with waste reveals values, which is to say it shows

¹⁰⁰ Conrad et al., *supra* note 58, at 2, 11.

¹⁰¹ The debate over the greenhouse gas effects of organic waste and food waste is ongoing and unsettled. For a balanced discussion of greenhouse gases and agriculture, see Ron Massey et al., Univ. of Mo., *Agriculture and Greenhouse Gas Emissions*, EXTENSION, <https://extension.missouri.edu/publications/g310> (last updated Mar. 2019). See also Blake Hudson, *Agriculture and Forestry*, in 2 GLOBAL CLIMATE CHANGE & U.S. LAW 649, 651 (Michael B. Gerrard & Jody Freeman eds., 2014); Steven Ferrey, *The Second Element, First Priority*, 24 B.U. J. SCI. & TECH. L. 41, 42 (2018). But see Georgina Gustin, *Two New Studies Add Fuel to the Debate Over Methane*, INSIDE CLIMATE NEWS (Feb. 20, 2020), <https://insideclimatenews.org/news/20022020/two-new-studies-add-fuel-debate-over-methane>. There are “[t]hree primary [greenhouse gases] . . . associated with agriculture: carbon dioxide [], methane [], and nitrous oxide [].” Hudson, *supra*, at 651. Methane and nitrous oxide are emitted in lesser quantities by agricultural production, but many argue that their “global ability” to “trap[] heat in the atmosphere,” or their “global warming potential,” is far greater and due in large measure to agricultural inputs and the decomposition of organic matter, which would indict food waste. *Id.* at 651 (internal quotations omitted); Brian Bausback, *The 3 Most Common Landfill Problems & Solutions*, HANDEX CONSULTING & REMEDIATION, LLC (Apr. 27, 2016), <https://www.hcr-llc.com/blog/the-3-most-common-landfill-problems-solutions>.

¹⁰² Conrad et al., *supra* note 58, at 1.

what people are worth and what is really important to them.”¹⁰³ As briefly shown, food waste is occurring at many points in the food chain of custody that runs from farms to a table – if it makes it that far.¹⁰⁴ Organic waste bans are laws or regulations that act as a net between all the waste occurring at the end of that chain and a landfill. Their main goal is to ensure that our food does not just become rot in a landfill, affecting the economy and environment.¹⁰⁵ To be effective, the legal and local infrastructure must exist to support an organic waste ban.

The problem of food waste has not gone unrecognized. There are numerous governmental entities at the federal, state, and local levels that have proposed plans and set goals to reduce the amount of food lost and wasted.¹⁰⁶ Officially, in 2018, the EPA, FDA, and USDA jointly announced their united effort to curtail the food loss and waste problem in the United States.¹⁰⁷ They propose to “increas[e] collaboration and coordination in our existing federal programs” with a focus on educating Americans about the extent of the problem and working with non-governmental groups specializing in the same field to achieve the purpose of reducing national levels of food waste.¹⁰⁸ However, other measures whose purpose was food waste reduction that have been proposed since the agreement between the administrative agencies was announced have either not passed or are still in the proposal stage.¹⁰⁹

¹⁰³ Joshua Reno, *Wastes and Values*, in *ARCHAEOLOGIES OF WASTE: ENCOUNTERS WITH THE UNWANTED* 59, 59–60 (Daniel Sosna & Lenka Brunclíková eds., 2017).

¹⁰⁴ See *supra* notes 54–62 and accompanying text.

¹⁰⁵ See *supra* Part 1; see *supra* notes 81–102 and accompanying text.

¹⁰⁶ See *infra* notes 109, 113–14; see *New Hampshire Food Waste Policy*, REFED, <https://policyfinder.refed.com/new-hampshire/> (last updated Mar. 5, 2021); see *Commercial Food Waste Compost Program*, CITY OF FAYETTEVILLE, ARK., <https://www.fayetteville-ar.gov/3775/Commercial-Food-Waste-Compost-Program> (last visited Apr. 20, 2020).

¹⁰⁷ *Formal Agreement Between EPA, USDA, and FDA Relative to Cooperation and Coordination on Food Loss and Waste*, U.S. FOOD & DRUG ADMIN. (Oct. 18, 2018), <https://wayback.archive-it.org/7993/20191215142335/https://www.fda.gov/food/domestic-interagency-agreements-food/formal-agreement-between-epa-usda-and-fda-relative-cooperation-and-coordination-food-loss-and-waste>.

¹⁰⁸ *Id.*

¹⁰⁹ Food Recovery Act of 2015, H.R. 4184, 114th Cong. (2015); Food Donation Act, H.R. 952, 115th Cong. (2017) (proposing greater limitations than established by the Bill Emerson Good Samaritan Act of 1994 to incentivize retailers and other vendors to donate rather than discard extra foods); see *KEEPING FOOD OUT*, *supra* note 54, at 5–14 (providing a sweeping overview of the Act and its effects and proposing that states increase food donor liability and promote education of the

Further, Congress has codified its vision that state and local governments have nearly exclusive power to handle “non-hazardous solid waste,” including organic food waste.¹¹⁰ The structure of federal assistance programs like TEFAP demonstrates a reliance on state and local entities to manage the distribution of food aid.¹¹¹ These manifest trust in local governments and their communities to be the first line of defense against the vast food waste-food insecurity gap.

Organic waste bans are designed differently from state to state and city to city, but the basic state-level organic waste ban structure includes: (1) who is considered a food waste generator (“FWG”); (2) how much food waste an FWG must produce within a specified period of time to be subject to the ban; and (3) exemptions such as undue or excessive hardship and distance exemptions.¹¹² Organic waste bans have been passed in seven municipalities, including Austin, Texas; Boulder, Colorado; Metro, Oregon; New York City, New York; San Francisco, California; Seattle, Washington; and Hennepin County, Minnesota.¹¹³ Additionally, six states have passed organic waste bans, including California, Connecticut, Massachusetts, New York, Rhode Island, and Vermont.¹¹⁴

Whether an entity is a food waste generator subject to a ban is determined by whether the entity produces a threshold amount of

extensive existing liability protections under the Act); *see* Morath, *supra* note 28, at 272.

¹¹⁰ Resource Conservation and Recovery Act, 42 U.S.C.A. §§ 6901(a)(4), 6902(a)(1) (Westlaw through Pub. L. No. 117-1 (excluding Pub. L. No. 116-283, 116-315)).

¹¹¹ *See supra* notes 1–4 and accompanying text.

¹¹² *See* VT. STAT. ANN. tit. 10, § 6605k(c) (West 2021) (defining those subject to the organic waste ban, FWGs, as “any person who generates any amount of food residuals”); *see* 310 MASS. CODE REGS. 19.006 (2021) (defining “commercial organic material” as “food material and vegetative material from any entity that generates more than one ton of those materials for solid waste disposal per week, but excludes material from a residence”); *see* 23 R.I. GEN. LAWS ANN. § 23-18.9-17 (West 2020) (limiting coverage to FWGs within 15 miles of a facility capable of accepting the waste material).

¹¹³ AUSTIN, TEX., CODE OF ORDINANCES §§ 15-6-91 et seq. (2014); BOULDER, COLO., MUNICIPAL CODE §§ 6-3-13 to -18 (2019); METRO, OR., METRO CODE chs. 5.10.410–470 (2021); N.Y.C., N.Y., ADMIN. CODE § 16-306 (2021); S.F., CAL., ENV’T CODE §§ 1901–12 (2021); SEATTLE, WASH., MUNICIPAL CODE §§ 21.36.082-.083 (2017); HENNEPIN CTY. MINN., ORDINANCE 13 (2018).

¹¹⁴ CAL. PUB. RES. CODE § 42649.81 (West 2021); CONN. GEN. STAT. ANN. § 22a-226e (West 2021); 310 MASS. CODE REGS. 19.017; N.Y. ENVTL. CONSERV. LAW § 27-2201 to -2219 (McKinney 2021); 23 R.I. GEN. LAWS ANN. § 23-18.9-17; VT. STAT. ANN. tit. 10, § 6605k.

the designated waste and whether the state or local law excludes that entity definitionally.¹¹⁵ For example, in Massachusetts the Massachusetts Code of Regulations bans the disposal or incineration or transfer for disposal at a landfill of all “commercial organic material.”¹¹⁶ Commercial organic material “means food material and vegetative material from any entity that generates more than one ton of those materials for solid waste disposal per week, but excludes material from a residence.”¹¹⁷ So, in Massachusetts, residential producers of food waste are not subject FWGs, even though there is no question they produce food material and vegetative material destined to be disposed of at a landfill. In Austin, Texas only “food enterprise[s] that require[] a food permit under [the food Permit Required Code]” are covered FWGs.¹¹⁸

However, other state and local governments have created bans that make residential property owners or managers subject FWGs.¹¹⁹ For example, in Hennepin County, Minnesota, the list of covered FWGs includes a long list of businesses and organizations, but makes compliance by those living in residential units and multifamily housing units optional.¹²⁰ Boulder’s Code requires compliance by “property owner[s] or property manager[s]” who own or manage housing units with a certain number of units in the building, “business owner[s],” and special event permit holders.¹²¹ So, in Boulder, the individuals or companies that own a covered housing unit are responsible for ensuring that food waste recycling units are available to all tenants, and must conduct annual trainings to educate their tenants about the availability of food waste recycling and how the units work.¹²² In Vermont, the legislature approved a ban that made “any person who generates any amount of food residuals” subject to the organic waste ban on July 1, 2020.¹²³

¹¹⁵ See 310 MASS. CODE REGS. 19.006, .017(3).

¹¹⁶ *Id.* at 19.017(3).

¹¹⁷ *Id.* at 19.006. Notice that the regulation does not clarify whether the commercial entity must produce one ton per week on average or at all times, which most of the other laws do.

¹¹⁸ AUSTIN, TEX., CODE OF ORDINANCES § 15-6-92(E).

¹¹⁹ See HENNEPIN CTY. MINN., ORDINANCE 13, §§ III–IV; see BOULDER, COLO., MUNICIPAL CODE §§ 6-3-13 to -15; see VT. STAT. ANN. tit. 10, § 6605k(c).

¹²⁰ HENNEPIN CTY. MINN., ORDINANCE 13, §§ III–IV.

¹²¹ BOULDER, COLO., MUNICIPAL CODE §§ 6-3-13 to -15. Boulder’s permit for special events explicitly imposes on the special event permit holder the obligation to separate and collect “recyclables and compostables.” See *id.* § 6-3-15.

¹²² See *id.* § 6-3-13.

¹²³ VT. STAT. ANN. tit. 10, § 6605k(c).

Threshold amounts of waste production are normally imposed by state legislatures but not by municipalities.¹²⁴ Vermont and California exemplify states where the threshold amount of food waste produced by an entity has been staggered to incrementally include FWGs producing smaller amounts of waste within a specified time.¹²⁵ In Vermont, as already mentioned, there is no longer a threshold exemption to the ban. Any person who produces any amount of food waste is subject to the ban.¹²⁶ In California, businesses producing “eight cubic yards or more of organic waste per week” on or after April 1, 2016 were subject FWGs.¹²⁷ The threshold decreased to four cubic yards or more on January 1, 2017, and the statute *permitted* the state to subject entities producing two or more cubic yards of organic waste per week on January 1, 2020 if the state determined “that statewide disposal of organic waste ha[d] not been reduced to 50 percent of the level of disposal during 2014.”¹²⁸

Exemptions to organic waste bans include financial burden exemptions and distance exemptions.¹²⁹ For example, in Rhode Island, a covered FWG is only subject to the ban if it is located within 15 miles of “an authorized composting facility or anaerobic digestion facility with available capacity to accept such material,” meaning the disposal requirement of any type of organic waste is tied to the services offered by these facilities.¹³⁰ Additionally, any subject FWG in Rhode Island may request a waiver if “the tipping fee charged by Rhode Island resource recovery corporation...is less than the fee charged by each” facility within the distance exemption.¹³¹ Thus, any covered FWG will not be exempt from the ultimate purpose to recycle/compost organic waste, but may choose a different facility than those authorized by the state.¹³²

¹²⁴ See KATIE SANDSON ET AL., HARVARD FOOD LAW & POLICY CLINIC, BANS AND BEYOND: DESIGNING AND IMPLEMENTING ORGANIC WASTE BANS AND MANDATORY ORGANICS RECYCLING LAWS 16 (2019), available at https://www.chlpi.org/wp-content/uploads/2013/12/Organic-Waste-Bans_FINAL-compressed.pdf.

¹²⁵ VT. STAT. ANN. tit. 10, § 6605k(c); CAL. PUB. RES. CODE § 42649.81(a) (West 2021).

¹²⁶ See VT. STAT. ANN. tit. 10, § 6605k(c).

¹²⁷ CAL. PUB. RES. CODE § 42649.81(a)(1).

¹²⁸ *Id.* § 24649.81(a)(2), (4).

¹²⁹ See SANDSON ET AL., *supra* note 124, at 28.

¹³⁰ 23 R.I. GEN. LAWS ANN. § 23-18.9-17 (West 2020).

¹³¹ *Id.*

¹³² See *id.*

Municipal codes do not include the distance exemptions.¹³³ They are unnecessary because when a municipality passes an organic waste ban, it is assumed that it has established the required facilities within the city or county to handle the generated food waste.¹³⁴ All covered FWGs within the municipality must comply with the requirements imposed by the ban.¹³⁵ These exemptions are included in the state-level bans because the “costs [of compliance] r[i]se in scenarios where processing infrastructure (composting or anaerobic digestion facilities) was limited and hauling distances were large.”¹³⁶

One problem with plans and strategies for food waste reduction is that they “generally do not themselves create legally enforceable obligations.”¹³⁷ But an organic waste ban imposes a legal requirement on the covered parties whether it is passed as a municipal regulation or a state law.¹³⁸ The issues affecting whether a municipal regulation or state law is better for implementing an organic waste ban include the legal authority to do so,¹³⁹ the viability of carrying out the law in a particular area,¹⁴⁰ and political pressure to legislate a matter of concern. A municipality’s legal authority to

¹³³ See SANDSON ET AL., *supra* note 124, at 13; see R.I. DIV. OF PLANNING, REPORT NO. 119, SOLID WASTE 2038: RHODE ISLAND COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN 2-12 to 2-13(2015), *available at* <https://www.rirrc.org/sites/default/files/2018-06/Comprehensive%20Solid%20Waste%20Management%20Plan%202015%20Optimized.pdf>.

¹³⁴ See SANDSON ET AL., *supra* note 124, at 13. This has been a big problem in the case of California’s passage of its food recycling law. It required all local governments to form a localized plan, which sounds good in theory, but without planning and infrastructural assistance, this has caused many problems. See *infra* notes 152–53 and accompanying text.

¹³⁵ See *Complying with Government Regulations*, KAUFFMAN ENTREPRENEURS (Nov. 11, 2005), <https://www.entrepreneurship.org/articles/2005/11/complying-with-government-regulations>.

¹³⁶ SANDSON, ET AL., *supra* note 124, at 16.

¹³⁷ *Id.* at 1.

¹³⁸ *Id.*

¹³⁹ “Every form of government in the United States has some express authority that justifies and defines its existence,” and “[s]tates grant cities and counties the ability to administer government on the local level,” which may be found in the state constitution or legislative codes or both. Peter J. Egler, *What Gives Cities and Counties the Authority to Create Charters, Ordinances, and Codes?*, 9 PERSP. 145, 145 (2001), *available at* <https://info.legalsolutions.thomsonreuters.com/pdf/perspec/2001-spring/spring-2001-10.pdf>.

¹⁴⁰ See SANDSON ET AL., *supra* note 124, at 24–26. One such factor is whether the local government can take on the task of preparing the local infrastructure to comply help FWGs comply with the ban or will need state assistance and support to make its locality ready. *Id.* at 25.

pass an organic waste ban is determined by whether it has “home rule” authority or if the local government is a creature of state law and “exist[s] to perform the tasks of the state at the local level,” known as the Dillon Rule.¹⁴¹ The infrastructural obstacles to an organic waste ban include whether the locality or state has businesses with the hauling capacity to take present amounts of food waste to composting and anaerobic digestion facilities, and whether such facilities even exist.¹⁴² States that have passed organic waste bans have faced opposition to the passage of a ban for reasons ranging from specific issues raised by concerned investors, to worry about financial burdens on schools and hospitals, to the economic concerns of Vermont haulers, including matters related to competing for customers among haulers serving the same areas;¹⁴³ the state’s assistance and support to become ready; and whether political pressures exist on the state legislative level that will impede the passage of a state-wide ban if local support and willingness exist.¹⁴⁴

The purpose of all of the current organic waste bans is unarguably the mitigation of food waste.¹⁴⁵ Some of the organic waste bans, like Austin’s, clearly state the preferred hierarchy for how to dispose of food waste: “(1) feeding hungry people; (2) feeding animals; (3) providing for industrial uses; and (4) composting.”¹⁴⁶ Others, like the ban in California, are silent,¹⁴⁷ but empower and mandate that local governments “implement an organic waste recycling program that is appropriate for that jurisdiction and designed specifically to divert organic waste generated by businesses subject” to the bans.¹⁴⁸

The difference between the Austin and California bans is the local government’s greater ability to regulate the final destination of

¹⁴¹ HON. JON D. RUSSELL & AARON BOSTROM, *AM. CITY CTY. EXCH., FEDERALISM, DILLON RULE AND HOME RULE 2* (2016), <https://www.alec.org/app/uploads/2016/01/2016-ACCE-White-Paper-Dillon-House-Rule-Final.pdf>; see Egler, *supra* note 139, at 145–46.

¹⁴² See SANDSON ET AL., *supra* note 124, at 36–37.

¹⁴³ *Id.* at 32–34.

¹⁴⁴ *See id.* at 24–26.

¹⁴⁵ *See, e.g.*, BOULDER, COLO., MUNICIPAL CODE § 6-3-13 (2019); 23 R.I. GEN. LAWS ANN. § 23-18.9-17(a) (West 2020); CONN. GEN. STAT. ANN. § 22a-226e(a)(1)(B) (West 2021).

¹⁴⁶ AUSTIN, TEX., CODE OF ORDINANCES §§ 15-6-92(D)(1)–(4) (2014).

¹⁴⁷ *See, e.g.*, CAL. PUB. RES. CODE § 42649.81–.87 (West 2021).

¹⁴⁸ *Id.* § 42649.82(a)(1). Although the California statute does not explicitly state how it wants food that otherwise would be wasted to be used, it does say that its overall goal is food waste reduction. *Id.* § 42649.82(a)(1).

food waste.¹⁴⁹ Local governments in California are free to design the organic waste ban in a way that complies with the state mandate and “is appropriate for that jurisdiction.”¹⁵⁰ The California statute serves as the floor for what a local government must do to divert organic waste from a landfill but does not restrict a local government from establishing a more specific local hierarchy of food waste priorities like the one found in Austin.¹⁵¹ This is a viable state-wide food waste mitigation strategy, but it is also burdening businesses financially.¹⁵² The California model has been accused of putting the “cart-before-the-horse,” imposing a deadline for organic waste implementation without providing for the needed infrastructure in advance.¹⁵³

New York, on the other hand, expended significant effort to research the economic viability and “societal benefits” of its organic waste ban in order to answer investors’ questions and concerns.¹⁵⁴ The study found that the benefits to society for the first year of the program would roughly range between \$15.2 million and \$22.5 million compared to continuing “business as usual.”¹⁵⁵ “[T]he report notes that there are likely additional benefits associated with an organic waste ban that are not included in the cost-benefit analysis, including societal benefits of increased food donation and potential cost savings to food businesses from food waste diversion efforts.”¹⁵⁶ Clearly organic waste bans can be beneficial to a state or municipal economy and the environment if well-researched and implemented with the infrastructure in place to handle the projected amount of food waste.

Nevertheless, there persists a gap between how much food is being wasted and how much food insecurity still exists in the country. For this reason, organic waste bans have been disparaged as ineffective in reducing food waste because all they do is keep food “one step away from a landfill,” and without the appropriate infrastructure, they will be ineffective as they are currently

¹⁴⁹ See AUSTIN, TEX., CODE OF ORDINANCES §§ 15-6-92(D)(1)–(4); see CAL. PUB. RES. CODE § 42649.81–.87.

¹⁵⁰ CAL. PUB. RES. CODE § 42649.82(a)(1).

¹⁵¹ See SANDSON ET AL., *supra* note 124, at 4.

¹⁵² See Kate Cimini, *Organic Waste Regulations on Horizon for California are Needed but Burdensome, Experts Say*, THE CALIFORNIAN (May 14, 2019, 5:34 PM), <https://www.thecalifornian.com/story/news/2019/05/14/california-organic-waste-regulations-will-cost-billions-dollars-carbon/3441732002/> (last updated May 20, 2019, 5:33 PM).

¹⁵³ *Id.*

¹⁵⁴ See SANDSON ET AL., *supra* note 124, at 18–20.

¹⁵⁵ *Id.* at 19.

¹⁵⁶ *Id.*

designed.¹⁵⁷ Based on the EPA's food recovery hierarchy upside-down pyramid, this statement is true.¹⁵⁸ From the perspective of the food insecure, this is a reasonable statement.

From a purely waste perspective, it is incorrect to disparage organic waste bans as ineffective because composting and anaerobic digestion at least put food to some better use than decomposition in a landfill.¹⁵⁹ No one contends that organic waste bans are "the silver bullet to America's food waste problem."¹⁶⁰ They are designed to deal with the food waste problem on the far side of the food chain where it is largely being wasted.

III. Organic Waste Bans Redesigned to Incentivize Organic Waste Bans and Food Generosity

In their current form, all organic waste bans are designed to facilitate food recycling.¹⁶¹ Despite Austin's hierarchy for how food waste should be utilized, the ideal of feeding the food insecure will not likely be fulfilled under the current regime of organic waste bans. Most covered FWGs are running businesses, so they will normally choose whichever option presents the lowest cost to them.¹⁶² Although ultimately organic waste recycling and composting is a better option for food waste disposal than the dumpster and landfill, organic waste bans should be re-designed to meet the goal of aiding the food insecure.

¹⁵⁷ Morath, *supra* note 28, at 255–58.

¹⁵⁸ See *Food Recovery Hierarchy*, *supra* note 27.

¹⁵⁹ See, e.g., Bausback, *supra* note 101 (detailing two types of composting that are designed to trap methane in liquid form rather than allow it to escape into the atmosphere while admitting that the complete omission of methane emissions via composting has not been achieved).

¹⁶⁰ Morath, *supra* note 28, at 258.

¹⁶¹ See SANDSON ET AL., *supra* note 124, at 8, 13. The state laws are explicitly written this way, and most of the literature describing organic waste bans connects food waste mitigation with composting. As noted about the California organic waste ban, a local government can often pass more restrictive measures. See *id.* at 4, 8, 13; see also *id.* at 24 (discussing whether a state or locality should adopt an organic waste ban or not based on whether its goal is to "hone in on food waste or organic waste specifically . . . [or] address broader challenges with recycling and other materials management"); see, e.g., EMILY BROAD LIEB ET AL., HARVARD FOOD LAW & POLICY CLINIC, OPPORTUNITIES TO REDUCE FOOD WASTE IN THE 2018 FARM BILL 17–20 (2017) [hereinafter OPPORTUNITIES TO REDUCE], available at https://www.chlpi.org/wp-content/uploads/2013/12/Opportunities-to-Reduce-Food-Waste-in-the-2018-Farm-Bill_May-2017.pdf.

¹⁶² See *Moving Forward*, *supra* note 63, at 50–53.

To fulfill this goal, compulsory composting or food recycling must become a last option for a covered FWG or a completely separate and subsidiary regulation or law. The need for composting exists because not all organic waste comes in the form of good, edible food.¹⁶³ If there is no donative or better purpose for the food waste, then composting can occur, but not just because it will be easier to implement or cheaper at the outset.¹⁶⁴ An organic waste ban that requires food donation or at-cost sale will likely cause covered FWGs to reevaluate how much food they are wasting and take other measures to mitigate waste before it happens.¹⁶⁵ Although many entities already seek to divert their food waste from landfills on their own, if there is no requirement to do so, many never will.

To assist local governments, state governments and the federal government need to increase incentives for food donation or at-cost sale that make an organic waste ban able to meet the dual goal of reducing food waste and food insecurity. Hungry people want food on their table, and businesses need low-cost alternatives to dispose of unused food.

As they exist now, organic waste bans will fail to meet the needs of the food insecure no matter how much food waste is successfully re-directed to composting purposes.¹⁶⁶ Kenyon's poetic potato glared at her out of the compost bin, wishing it could have been what it was intended to be.¹⁶⁷ Local governments need the support of their state and federal governments to be able to pass an organic waste ban that does not require composting or make composting the only feasible business option. If federal and state government officials will act, organic waste bans can help meet the dual goal of reducing food waste and alleviating food insecurity in their communities.

First, federal and state tax credits or deductions need to be expanded or made permanent¹⁶⁸ for covered FWGs that donate or sell

¹⁶³ See *supra* notes 51–53 and accompanying text.

¹⁶⁴ See Leib et al., *supra* note 62.

¹⁶⁵ See *Moving Forward*, *supra* note 63, at 50–53.

¹⁶⁶ See John Fischer & Elizabeth Johnston, *Calculating Economic Impact of Commercial Organics Ban*, BIOCYCLE (Mar. 8, 2017), <https://www.biocycle.net/2017/03/08/calculating-economic-impact-commercial-organics-ban/>; see OPPORTUNITIES TO REDUCE, *supra* note 161, at 1.

¹⁶⁷ JANE KENYON, *Potato*, in COLLECTED POEMS 261, 261 (Graywolf Press 2005) (1993).

¹⁶⁸ See Bedard, *supra* note 49, at 292–93, for a look at how Congress has and has not acted to combat food waste where it is capable of doing so.

at-cost their would-be wasted food.¹⁶⁹ The federal government subsidizes certain foods and thereby plays an active role in fueling food waste at the farm level.¹⁷⁰ Congress would be wise to keenly look at some of this subsidy money and see if it would be better used to incentivize FWGs covered by organic waste bans. Local efforts are better suited to meet the goals of food waste reduction and food insecurity alleviation shared by federal, state and local governments.

As said earlier, the USDA, EPA, and FDA have announced their joint aim to reduce the country's food waste.¹⁷¹ This could serve as a persuasive pressure point to convince the federal government to search for ways that it can cooperate with state and local governments to fulfill this goal. One such incentive needs to be providing local businesses and entities of any kind tax benefits for donation or at-cost sale of foods that would become waste.¹⁷² Moreover, this is a way the federal government can fulfill the earliest purposes of the Agricultural Adjustment Act of 1933 to prevent food waste, and complementarily help fulfill the goal of federal assistance programs to "provide[] nutrition benefits to supplement the food budget of needy families so they can purchase healthy food and move towards self-sufficiency."¹⁷³

States also should also expand state tax credits or deductions beyond their current limited levels to make compliance with an organic waste ban affordable for covered FWGs.¹⁷⁴ The current levels of state tax credits and deductions do not make compliance feasible for businesses and retailers.¹⁷⁵ If covered FWGs are allowed to sell would-be wasted food to cover their costs, then tax credits or deductions could be reduced accordingly based on the amount of money a covered FWG receives for the sale. This could benefit all

¹⁶⁹ OPPORTUNITIES TO REDUCE, *supra* note 161, at 10 (providing a thorough survey of food waste recovery possibilities within the existing legal framework, and numerous acute recommendations for improvement).

¹⁷⁰ Intertwined with this are the USDA's policies of publicly declaring its aim to reduce food waste nationally, while at the same time establishing arbitrary guidelines that delineate food quality for the American consumer when, in fact, the USDA food quality guidelines have nothing to do with taste or the actual goodness of the food, but with color, shape and size. *See* LINNEKIN, *supra* note 34, at 123–34. This fuels food waste because of the limitations it places on what farmers can viably sell and what grocers are willing to purchase based on consumer demand. *See id.*

¹⁷¹ *See supra* note 107 and accompanying text.

¹⁷² KEEPING FOOD OUT, *supra* note 54, at 15–22.

¹⁷³ *Id.*; SNAP, *supra* note 1.

¹⁷⁴ KEEPING FOOD OUT, *supra* note 54, at 17–22.

¹⁷⁵ *Id.* at 20–21.

involved parties, and instigate food donation and sale at reduced cost even by FWGs who are not required by an organic waste ban to find another place for their excess foods than a dumpster.

The Bill Emerson Good Samaritan Act “remains an underutilized tool” that was designed to “reduce[] potential donor liability and solve[] the problems created by a patchwork of various state laws” meant to preempt food liability for donors, and it also is meant to “enable[] and encourage[] food recovery to help those that are food insecure.”¹⁷⁶ When asked about their reluctance to donate food, many food manufacturers, retailers, and wholesalers still raise liability concerns.¹⁷⁷ Here, it is not “folly to be wise” because “ignorance is [not] bliss,” but waste.¹⁷⁸ When a state or local government imposes an organic waste ban, it needs to provide educational materials and trainings so that covered FWGs understand their liability coverage under this Act.

To further fulfill the purposes of enabling and encouraging food recovery in partnership with state and local governments, the Bill Emerson Good Samaritan Act needs to be amended so that covered FWGs can sell would-be wasted food at cost.¹⁷⁹ It has been suggested that the Act needs to provide liability protection to food producers and food service establishments that donate food directly to individuals experiencing food insecurity.¹⁸⁰ If this were to occur, the liability protection should extend to those businesses that sell excess food at reduced cost and not just for free. The risks associated

¹⁷⁶ James Haley, *The Legal Guide to the Bill Emerson Good Samaritan Food Donation Act*, 2013 ARK. L. NOTES 1448, ¶¶ 3–4 (2013), available at <http://media.law.uark.edu/arklawnotes/2013/08/08/the-legal-guide-to-the-bill-emerson-good-samaritan-food-donation-act/>.

¹⁷⁷ OPPORTUNITIES TO REDUCE, *supra* note 161, at 10.

¹⁷⁸ Thomas Gray, *Ode on a Distant Prospect of Eton College*, POETRY FOUND., <https://www.poetryfoundation.org/poems/44301/ode-on-a-distant-prospect-of-eton-college> (last visited Mar. 13, 2021). This is an advantageous use of Thomas Gray’s poem, *Ode on a Distant Prospect of Eton College*.

¹⁷⁹ See OPPORTUNITIES TO REDUCE, *supra* note 161, at 10; EMILY BROAD LIEB ET AL., HARVARD FOOD LAW & POLICY CLINIC & NAT. RES. DEF. COUNCIL, DON’T WASTE, DONATE: ENHANCING FOOD DONATIONS THROUGH FEDERAL POLICY 1–3 (2017) [hereinafter DON’T WASTE, DONATE], available at <https://www.nrdc.org/sites/default/files/dont-waste-donate-report.pdf>.

¹⁸⁰ DON’T WASTE, DONATE, *supra* note 179, at 1–3. This would help to mitigate some amount of food waste due to the logistical challenges faced by grocers and retailers who do not have adequate space to store excess food. See Harrison Jacobs, *Here’s Why Wasted Food Doesn’t Get to Poor People*, BUS. INSIDER (Oct. 16, 2014, 12:20 PM), <https://www.businessinsider.com/why-dont-some-grocery-stores-donate-food-to-poor-people-2014-10>.

with such donations or sales are already adequately handled by the requirement to undergo food safety training,¹⁸¹ and where a business is not yet undergoing such training, it can be required before liability protection is extended. If Congress will not do this, then any state that considers passing a statewide organic waste ban should also extend tort liability for covered FWGs in this way, and local governments that pass organic waste bans should advocate for this reformation of the law.

It costs money for a grocery store, restaurant, or other entity to donate food, including the costs of initial purchase and storage, then the costs of labor to sort, stock, and possibly prepare foods.¹⁸² Some studies show a willingness among those who would be considered food insecure to pay for foods in this way.¹⁸³ This at-cost donation structure has the additional benefit of de-stigmatizing food insecurity and giving people who are food insecure the dignity of participating in the process of providing for themselves and their households.¹⁸⁴ So, this gap should be closed and food liability protection under the Bill Emerson Good Samaritan Act should be offered to FWGs who sell excess, good food at a reduced cost to

¹⁸¹ OPPORTUNITIES TO REDUCE, *supra* note 161, at 10.

¹⁸² See Jacobs, *supra* note 180.

¹⁸³ See Christine G.K. Chege et al., *Are Consumers at the Base of the Pyramid Willing to Pay for Nutritious Foods?*, 87 *Food Pol'y* 101745, § 3 (2019), available at <https://www.sciencedirect.com/science/article/pii/S0306919219305627#:~:text=Poor%20urban%20consumers%20are%20willing,safe%20and%20nutritious%20porridge%20flour.&text=Providing%20nutrition%20information%20increases%20the%20willingness%20to%20pay%20for%20nutritious%20porridge.&text=Study%20findings%20are%20important%20in%20tackling%20malnutrition%20among%20poor%20consumers> (demonstrating a willingness among the very poor in East Africa to pay for better quality food over getting free food of lesser quality). A “pay-what-you-can” restaurant in Philadelphia is testing this hypothesis. Eleanor Goldberg, *This Trendy Restaurant Lets Customers Pay What They Can Afford*, HUFFPOST (May 22, 2017, 11:26 AM), https://www.huffpost.com/entry/eat-cafe-philadelphia-hunger_n_591c4041e4b0ed14cddae7f3. Many CSAs have a tiered payment structure based on income. See, e.g., CSA, AROUND THE TABLE FARM, <https://aroundthetablefarm.com/csa> (last visited Apr. 17, 2020).

¹⁸⁴ See *Food & Cash-Based Assistance*, WORLD FOOD PROGRAM USA, <https://www.wfpusa.org/explore/wfps-work/wfp-programs/food-assistance-cash-and-in-kind/> (last visited Apr. 20, 2020). This issue of dignity and its relationship to food donation, quality of donated food, and many other related topics, is as complex as the people involved in it. Dignity can be had by the food insecure in more ways than being able to purchase good food, but it is one way. See, e.g., Jay Rayner, *People in Poverty Don't Just Need Feeding. They Should Have the Dignity of a Good Meal*, THE GUARDIAN (June 15, 2017, 7:00 AM), <https://www.theguardian.com/lifeandstyle/2017/jun/15/people-in-poverty-dont-just-need-feeding-they-should-have-the-dignity-of-a-good-meal>.

qualifying buyers so that they can cover some of the base costs of ensuring excess foods are not wasted.

IV. Conclusion

Jane Kenyon's poem *Potato*:

In haste one evening while making dinner
I threw away a potato that was spoiled
on one end. The rest would have been
redeemable. In the yellow garbage pail
it became the consort of coffee grounds,
banana skins, carrot peelings.
I pitched it onto the compost
where steaming scraps and leaves
return, like bodies over time, to earth.

When I flipped the fetid layers with a hay
fork to air the pile, the potato turned up
unfailingly, as if to revile me—

looking plumper, firmer, resurrected
instead of disassembling. It seemed to grow
until I might have made shepherd's pie
for a whole hamlet, people who pass the day
dropping trees, pumping gas, pinning
hand-me-down clothes on the line.¹⁸⁵

The “hamlet” of Kenyon's poem is where food waste is felt, and it is where change must occur. We waste the whole because “one end” is unseemly to the eye or rotten.¹⁸⁶ Some food scraps and waste are composted, but unlike Kenyon's potato, unbelievable amounts of good food are landfilled.¹⁸⁷ Kenyon saw potential in the partially rotten potato. Her haunting was a harbinger of a potential future where waste and want do not live hand-in-hand and where resourcefulness is virtuous.

Locally designed organic waste bans that do not enforce composting as the first and most affordable option for food waste reduction need to be passed. Current organic waste bans are working.¹⁸⁸ FWGs that are covered by such a ban need options that

¹⁸⁵ JANE KENYON, *Potato*, in COLLECTED POEMS 261, 261 (Graywolf Press 2005) (1993).

¹⁸⁶ See *supra* notes 55, 63–64 and accompanying text.

¹⁸⁷ See *supra* notes 67–72 and accompanying text.

¹⁸⁸ See, e.g., OPPORTUNITIES TO REDUCE, *supra* note 161, at 17–18; Amy Leibrock, *Are Food Waste Bans Working?*, SUSTAINABLE AM. (Jan. 11, 2017), <https://sustainableamerica.org/blog/are-food-waste-bans-working/>.

make the donation of good food and at-cost sale affordable and accessible. This will reduce food waste by FWGs as they become more aware of their food waste practices and the costs of food waste on their businesses, the economy and the environment. A locally designed organic waste ban, when empowered by federal and state level legal frameworks, has the greatest potential to both reduce food waste and to alleviate food insecurity. This is because local governments and communities are in the best position to design an organic waste ban that does not make composting the first and most affordable option, that creates cooperative agreements between local businesses and local food recovery and donation agencies, and is able to improve local business food waste reduction practices and put food on the tables of the food insecure.