



Moving Food Waste Forward

Policy Recommendations for Next Steps in Pennsylvania

SEPTEMBER 2017

Prepared by the Harvard Law School Food Law and Policy Clinic
For Philabundance

The cover photo depicts Philabundance's food rescue program at the Philadelphia Wholesale Produce Market, where volunteers sort out fresh, edible produce from pallets of quickly ripening product that can't be sold and otherwise would not be eaten.

This report is authored by the following staff and students in the Harvard Law School Food Law and Policy Clinic: Emily Broad Leib, Alyssa Chan, Christina Rice, Erik Federman, and Victoria Hartman. All editorial and other mistakes are our own. The report was commissioned by Philabundance, the Philadelphia region's largest hunger relief organization, serving five counties in Pennsylvania and four in New Jersey.

Thank you to the following individuals for providing their perspective and insight on the best ways to reduce food waste and encourage food recovery in Pennsylvania. Glenn Bergman of Philabundance; Kait Bowdler of Philabundance; Jane Clements-Smith of Feeding Pennsylvania; Sheila Cristopher of Hunger-Free Pennsylvania, Nic Esposito, Zero Waste and Litter Director for the City of Philadelphia; Amanda Fiegel of Northeast High School in Philadelphia; Emma Kornetsky of Philabundance; Leah Lizarondo of 412 Food Rescue; Dennis McManus of the Greater Pittsburgh Community Food Bank; Josh Murphy of the Greater Pittsburgh Community Food Bank; Tom O'Donnell of Cabrini University; Rachel Schneider of the Greater Pittsburgh Community Food Bank; Cathy Snyder of Rolling Harvest; Erin Smith Wachter of the Central Pennsylvania Food Bank; Karen Woodings of the Central Pennsylvania Food Bank.



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Made possible with support from the Claneil Foundation

TABLE OF CONTENTS

Foreword..... 4

Introduction 6

Table of Report Recommendations..... 7

Tax Incentives for Food Donations..... 9

Liability Protection for Food Donations.....12

Date Labeling16

Food Safety for Food Donations19

School Food Waste21

Organic Waste Ban and Waste Recycling Laws26

Government Support for Food Waste Reduction.....30

Conclusion.....35

Endnotes36



FOREWORD

Let's Take a Step Forward...

Millions of Americans are hungry while millions of tons of food go to waste. We can, and should, fix this.

Through our work as a hunger relief organization serving nine counties in Pennsylvania and New Jersey, Philabundance sees this dichotomy every day, both when we are picking up food from the backs of grocery stores and as we distribute that food to 90,000 of our neighbors in need each week.

Philabundance was founded 33 years ago on a model of food recovery, and while the scope of our efforts have grown, rescuing food that would otherwise go to waste continues to be a critical part of our work. Of the 24 million pounds of food we distributed last year, 17 million pounds was perfectly good food recovered from grocery stores, farms and manufacturers that would have otherwise gone to waste. This resourceful approach enables us to feed children, seniors, veterans and others, while also reducing harm to the environment. **Our mission is to drive hunger from our communities today and end hunger forever.** To do this, we need a more collaborative and just food system, and reducing unnecessary food waste is a critical part of this work.

We believe that new laws, regulations, and clarifying language could go a long way to encourage food donations, increase the efficiency of food recovery and, ultimately, feed people in need while reducing the amount of food unnecessarily going into the trash.

For these reasons, we commissioned the Harvard Law School Food Law and Policy Clinic to develop a report outlining a number of legislative strategies and regulatory opportunities that could reduce food waste. Ultimately the goal of this report is to understand how to build on best practices from across the country and address the unique strengths and challenges within Pennsylvania. Of the 28 recommendations listed in the report, two came to the forefront for Philabundance: a food waste recycling law and standardizing date labels. We are acutely interested in learning more about and advancing these two recommendations, which we see as having the biggest impact and aligning best with our mission.

1) FOOD WASTE RECYCLING LAWS:

At 21%, food waste is the single largest material in landfills, causing immense environmental harm and overcrowded landfills.¹ States that have implemented food waste recycling laws have seen a sizable increase in food donations to food recovery organizations.² Waste recycling laws encourage businesses to treat excess food as a valuable commodity that can be diverted to higher uses, such as donation to hungry neighbors, recycling, or composting. We want to work with the food industry, waste industry and other food recovery organizations to determine how to best move forward with this type of law, while not placing an undue burden on any sector. We firmly believe we should feed people, not landfills.

2) STANDARDIZED DATE LABELS:

It's estimated that a family of four spends \$1,500 a year on food they don't eat.³ Consumer confusion about date labels is a major driver of food waste. These dates are often set by the food's manufacturer and are based on quality standards rather than justified health concerns.⁴ By standardizing date labels (one for quality and one for safety), we can create a clearer and more sensible food system that allows consumers at all economic levels to make the best choices for their families. Clearer date labels on food products could also help empower food donors, food banks, like Philabundance, our agencies and clients by dispelling the stigma around donating and consuming past-date food.

We hope that this report can serve as an educational resource that helps shift the existing paradigm around food policy in Pennsylvania and beyond.

It's time to put wasted food on the table, both literally and figuratively. We need to start a conversation and reimagine what we think of as food waste in this country and how we manage it. **Just a 15% reduction in food waste could reduce the number of food insecure people in the United States by half.**⁵ We need to address the absurdity of living in a country that has both an overabundance of food and an overabundance of hunger. We invite all interested stakeholders to pull up a chair and work with us to take on these alarming problems together, and work to create a better food system, pure and simple.

Let's take a step forward together.

Thank you,



KAIT BOWDLER & EMMA KORNETSKY

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INTRODUCTION

Approximately 40 percent of food produced in the U.S. goes to waste.⁶ This amounts to over 62.5 million tons of food waste per year;⁷ 10.1 million tons of this waste is left unharvested on farms, while 52.4 million tons is food that ends up in landfills, instead of being eaten.⁸ In total, the U.S. spends \$218 billion each year growing, manufacturing, processing, distributing, and disposing of food that is never eaten.⁹ At the same time, many Americans are food insecure, and Pennsylvania is no exception. An estimated 1.7 million Pennsylvanians, or 13.1 percent of the state's population, experience food insecurity.¹⁰ Pennsylvania has already taken some steps to address these problems; however, opportunities remain for the state to do more to encourage food waste prevention, redirect safe surplus food to those in need, and invest in recycling infrastructure to scale up composting and anaerobic digestion.

Waste occurs at all levels of the food system, but it is not evenly distributed. More than 80 percent of all food waste occurs in consumer homes and consumer-facing businesses, such as supermarkets, restaurants, and institutions.¹¹ This report primarily addresses food waste in consumer-facing businesses because it comprises 40 percent of all waste¹² and poses the clearest opportunities for food recovery, especially donation. Other initiatives provide tips and resources aimed at reducing consumer household-level food waste; for example, the Save the Food campaign,¹³ a joint effort by the Natural Resources Defense Council and the Ad Council, and the Food Waste Challenge,¹⁴ jointly organized by the U.S. Department of Agriculture (USDA) and Environmental Protection Agency (EPA).

In October of 2016, the Harvard Law School Food Law and Policy Clinic released *Keeping Food Out of the Landfill: Policy Ideas for States and Localities*,¹⁵ a resource that provides detailed information on how states and local governments can contribute to local food waste reduction. This report applies and refines *Keeping Food Out of the Landfill* to provide information and recommendations specific to Pennsylvania. The bulk of this text is comprised of ideas and recommendations that emerged from conversations with food waste experts and stakeholders from around the state, but the report also references information and examples from other states. This report covers the following seven policy areas: tax incentives, liability protections, date labels, food safety, school food waste, organic waste bans and waste recycling laws, and government support.

The recommendations in this report are organized according to policy area; however, stakeholders, advocates, and legislators should make sure to prioritize among the various methods of food waste reduction according to the EPA Food Recovery Hierarchy (see next page).¹⁶ As shown by the Hierarchy, food waste reduction is the best food waste solution, followed by feeding surplus

food to people in need, providing food scraps to animals, diverting food waste to industrial uses, and composting. Only food that cannot be diverted through one of those methods should be disposed of in a landfill or via incineration.



Pennsylvania stakeholders can use the information in this report to determine key policy priorities to further reduce the amount of food wasted in the Commonwealth. The recommendations in this report could be implemented individually or in tandem, or could be combined together into comprehensive state food waste legislation. They could also be pursued in stages, with short-term and long-term goals. This report merely begins the process of identifying a range of opportunities, among which Pennsylvania stakeholders can prioritize.

TABLE OF REPORT RECOMMENDATIONS

REPORT SECTION	RECOMMENDATION	ENACTING AGENCY OR BODY
Tax Incentives for Food Donations	Offer a separate, dedicated state-level tax incentive for food donations	Pennsylvania General Assembly
	Offer a state-level tax incentive for transportation costs associated with delivering recovered food	Pennsylvania General Assembly
Liability Protections for Food Donations	Provide liability protections for food establishments, retail stores, and farms that donate directly to final recipients	Pennsylvania General Assembly
	Provide liability protections for food recovery organizations that charge end recipients for food	Pennsylvania General Assembly
	Explicitly provide liability protections for the donation of safe, past-date food	Pennsylvania General Assembly
Date Labeling	Standardize date labeling language to clearly distinguish between food safety and food quality	Pennsylvania General Assembly
	Eliminate the 17 day rule and restrictions on the sale of past-date milk	Pennsylvania General Assembly
	Educate the public about the meaning of date labels	Pennsylvania General Assembly
Food Safety for Food Donations	Incorporate a specific food donation section into Pennsylvania's statewide food safety regulations and/or produce agency guidance clarifying food safety rules for food donors	Pennsylvania General Assembly, Pennsylvania Department of Agriculture
	Empower health inspectors to serve as ambassadors for safe food donation and arm them with handouts and information to give to food businesses when conducting inspections	Pennsylvania Department of Agriculture; Local Health Departments

REPORT SECTION	RECOMMENDATION	ENACTING AGENCY OR BODY
School Food Waste	Provide funding for schools to conduct food waste audits	Pennsylvania General Assembly, Pennsylvania Department of Education
	Expand Offer Versus Serve to elementary and middle schools	Pennsylvania Department of Education
	Lengthen lunch periods and schedule lunch after recess	Pennsylvania General Assembly, Pennsylvania Department of Education
	Encourage schools to switch to trayless dining	Pennsylvania Department of Education
	Create guidance documents on implementing school food donation programs	Pennsylvania Department of Education
	Encourage the use of share tables	Pennsylvania Department of Education
	Create incentives—such as challenges, grants, and awards—for schools to reduce waste	Pennsylvania General Assembly, Pennsylvania Department of Education
Organic Waste Bans and Waste Recycling Law	Implement an organic waste ban or waste recycling law	Pennsylvania General Assembly
	Provide funding to develop composting or AD infrastructure	Pennsylvania General Assembly
	Encourage farmers in the Commonwealth to develop composting facilities by scaling up existing support programs	Pennsylvania General Assembly, Pennsylvania Department of Environmental Protection
	Draft regulations for permitting non-municipal commercial organic waste processing facilities	Pennsylvania General Assembly
	Provide guidance to businesses about how to comply with the ban, and outline best practices for food donation, composting and AD, and other diversion tactics	Pennsylvania Department of Environmental Protection
	Provide funding for localities to implement curbside composting programs	Pennsylvania General Assembly, Pennsylvania Department of Environmental Protection
Government Support for Food Waste Reduction	Broaden and expand public education regarding food waste and food recovery	Pennsylvania General Assembly, Pennsylvania Department of Environmental Protection
	Encourage food waste reduction through a food waste reduction challenge or certification program	Pennsylvania General Assembly, Pennsylvania Department of Environmental Protection
	Expand funding for PASS	Pennsylvania General Assembly
	Provide funding for food recovery infrastructure	Pennsylvania General Assembly
	Support the creation of food waste reduction technologies	Pennsylvania General Assembly

I. TAX INCENTIVES FOR FOOD DONATIONS

A. INTRODUCTION

Cost is a major barrier to food donation, since food donors and food recovery organizations often must prepare, store, and transport excess food to people in need. Further, additional work is often required to ensure that all donated food complies with relevant federal, state, and local food safety and labeling laws. Because of these challenges, providing a monetary incentive can be crucial to ensuring that food donation is financially feasible for companies and organizations.

Tax incentives are one way of providing financial support for food donations. There are two main types of tax incentives: tax deductions and tax credits. A tax deduction reduces the taxpayer's taxable income, which is then used to calculate the amount of taxes owed.¹⁷ By contrast, a tax credit is a direct reduction in the amount of taxes owed.¹⁸

Tax incentives for food donation are extremely cost-effective: any money provided through such a program directly incentivizes a farm or food business to donate food by covering part of their costs. If a farm or food business does not donate, they receive no tax benefits and no government money is spent. In addition to encouraging donations of healthy, wholesome food, tax incentives can support low-profit margin businesses, like many farms, by allowing them to recover some of the cost invested in producing food that they are unable to sell.

B. FEDERAL LAWS

There are two different federal tax deductions for food donations: a general deduction and an enhanced deduction. The general deduction applies to any charitable donation, and allows businesses to deduct only the basis value of the donated property—that is, the business' cost of acquiring or producing the property.¹⁹ The enhanced deduction provides a significantly higher financial benefit than the general deduction, and allows a business to deduct the smaller of the following two: (a) twice the basis value of the donated food or (b) the basis value of the donated food plus one-half of the food's expected profit margin (fair market value minus basis value).²⁰ Certain criteria must be met in order for food donors to receive the enhanced tax deduction;²¹ for example, donor organizations must donate food to a 501(c)(3) nonprofit organization and the recipient organization may not charge individuals for the donated food. The Harvard Law School Food Law and Policy Clinic published a separate guide that provides more information about the federal enhanced tax deduction and how it operates; see the *Federal Enhanced Tax Deduction for Food Donation: A Legal Guide*.²²

Federal tax incentives have been extraordinarily successful in incentivizing food donation in the U.S. For example, when the federal enhanced tax deduction was temporarily expanded to cover more donor businesses in 2005, food donations across the country rose by 137 percent in the following year.²³ In late 2015, Congress permanently expanded the federal enhanced tax deduction for food donations to cover all businesses.²⁴

Despite their success, federal tax incentives also present certain challenges. For example, tax deductions generally favor large, high-income businesses, and low-profit margin businesses, like farms, may struggle to claim a deduction because their taxable income is already low. It can also be challenging for donors to meet some of the requirements of the federal enhanced deduction. Luckily, states are equipped to provide further incentives in order to target food donors that do not benefit, or do not sufficiently benefit, from federal deductions.

C. PENNSYLVANIA LAWS

Ten states currently offer state level tax incentives specifically for food donations,²⁵ targeting different food donors that may not sufficiently benefit under the federal enhanced deduction; for example, several states offer tax incentives to farmers. In these states, certain organizations that donate surplus food can receive the tax incentive, up to a maximum value. Pennsylvania offers a different type of tax program that does not directly target food waste and is more limited in the number of donors it can serve.

The Charitable Food Program (CFP) is a subcomponent of the Neighborhood Assistance Program (NAP), a broad state initiative to encourage private investment in needy communities.²⁶ Through CFP, Pennsylvania offers a 55 percent tax credit to businesses²⁷ that donate money or food to qualifying charitable food organizations²⁸ operating in the Commonwealth. Costs associated with activities necessary to support the CFP project (e.g. transportation) are eligible for the credit, provided that they do not exceed 15 percent of the project's total budget.²⁹ Additionally, only donations of food with "nutritional value," as determined by the Pennsylvania Department of Community and Economic Development (DCED), qualify for tax credits.³⁰ Although DCED does not explain the criteria it uses to determine which foods have nutritional value, "candy, soda, [and] snack foods" do not qualify for the tax credit.³¹ Food donations of qualifying foods are valued by weight at costs predetermined by DCED.³² For example, vegetables are valued at \$1.05/lb, resulting in a tax credit value of \$0.58/lb.³³



CFP is an important program; however, the application process makes it difficult for many potential food donors to access the credit. To participate, charitable food recovery organizations must apply to DCED annually for approval based on expected donations for the coming year.³⁴ As a part of that application, they must include a budget and letters from businesses committing to donate a certain amount of food or money to the CFP applicant.³⁵ DCED then reviews applications according to eight factors, including the number of commitments the project has received from donors and the impact that it will have in its community.³⁶ If the application is accepted, DCED will approve tax credits for 55 percent of the proposed budget.³⁷ Individual donors identified in the approved

organization's budget may then apply to DCED to receive the credit based on their contribution.³⁸ They may use the credit for themselves; sell or assign it to a third party; or pass it through to their shareholders, partners, or members.³⁹ Donor businesses may not receive more than \$500,000 per year in tax credits, unless they contribute to the operation of at least four qualifying projects, in which case they can receive up to \$1,250,000 per year.⁴⁰

The entire NAP program is funded at \$18 million, although only a portion of that goes to the CFP program.⁴¹ The remainder is spread across other NAP subcomponents: the Special Program Priorities, which focuses on specific needs in distressed communities; the Neighborhood Partnership Program, which seeks to develop long term relationships between businesses and nonprofits working in a community; and the Enterprise Zone Program, which encourages private companies to invest in designated "enterprise zones."⁴² In 2016, seven charitable food organizations were approved for CFP and their donors received a cumulative \$3,000,000 in tax credits.⁴³ However, there is more demand and many charitable food organizations and potential food donors who are not able to access the program: DCED received over 200 CFP applications during the 2015-16 fiscal year.⁴⁴

It is difficult for many donors to receive tax credits for food donations under CFP, and for the program to incentivize the donation of food that would otherwise be wasted, because of the up-front commitment CFP requires donors to make one year in advance. Most food donors, with the exception of the largest businesses that may be able to predict their surplus, are unlikely to know the amount of extra food they would be able to donate ahead of time, preventing them from accessing the credit. Further, the program has limited funding and only allows several donors to participate in the program each year, meaning that many potential donors are kept out of the program.

CFP is an important program that offers tax incentives to certain charitable food organizations and to food businesses for their donations. However, CFP is inaccessible to many potential food donors. While CFP plays an important role in incentivizing donations to charitable food organizations and addressing food insecurity, it has a limited effect on food waste. The following

recommendations identify ways for Pennsylvania to more effectively promote food waste reduction through tax incentives, building on CFP to ensure that more potential food donors have an incentive to donate, rather than dispose of, surplus wholesome food.

D. RECOMMENDATIONS

1) Offer a separate, dedicated state-level tax credit for food donations

Tax incentives can be a powerful tool in encouraging food donations. Because it is difficult to access and limits the number of donations eligible for a tax credit, CFP limits the number of food donations made in Pennsylvania. In fact, a representative from one food recovery organization reported that it lost donors because it had not qualified for CFP.⁴⁵ The competitive process makes it difficult for small charitable food organizations to qualify for CFP, and the requirement that donors make commitments a year in advance may make it impossible for some potential donors to donate food through the program.⁴⁶ To incentivize a greater number of Pennsylvania businesses to donate surplus food, the Commonwealth could create a separate, broader tax incentive for food donations. This policy would encourage food companies to donate, rather than waste, surplus food by enabling them to receive a tax credit even without applying ahead of time through a charitable food organization.

Although the federal government offers a tax deduction for food donations, a state-level tax credit could further incentivize donations from certain sectors. This is because deductions, which depend on a business' marginal tax rate, tend to favor only high-income businesses.⁴⁷ By contrast, a tax credit is a direct dollar-for-dollar subtraction from the amount of taxes the taxpayer owes, and can noticeably benefit all businesses, even those that sit in relatively low tax brackets.⁴⁸ For example, a representative from a Philadelphia area food recovery organization said that most of the farmers they work with do not apply for the federal enhanced tax deduction, in part because they do not pay enough in taxes to make applying the deduction economical.⁴⁹ A state tax-level credit would do more for these farmers than the federal tax deduction, and could encourage more of them to donate their surplus food.



Pennsylvania should identify the taxpayers and potential food donors it hopes to incentivize, and design its credit with them in mind. Virginia, for example, has created a tax credit that is only available to farmers. Under this incentive, farmers receive a credit of 30 percent of the fair market value of food they donate to nonprofits.⁵⁰ A similar tax credit could be helpful in Pennsylvania. In 2016, there were approximately 58,000 farms in the state, with a median size of 131 acres.⁵¹ As discussed above these businesses would probably not receive much from the federal tax deduction,⁵² and are also unlikely to be able to predict surpluses far enough in advance to make the up-front commitment required for CFP. A state-level tax incentive targeting farmers could thus play an important role in incentivizing such donations. Of course, another option would be to extend a state tax credit to all taxpayers, instead of targeting a specific group. In Colorado, for example, all taxpayers receive a credit of 25 percent of the wholesale market price of food they donate.⁵³

2) Offer a state-level tax incentive for transportation costs associated with delivering recovered food

The cost of transporting donations from businesses to recipients is a major barrier to food donation. Especially in rural areas, farms and other potential donors are often located far from population centers, meaning transportation costs to food recovery organizations can be substantial. CFP does allow donors to receive a tax credit for transportation costs.⁵⁴ However, as discussed above, participation in CFP is limited, which restricts the impact of this credit.

Pennsylvania could design a tax credit that specifically targets transportation costs of donating food. California provides a good model, offering food donors a 50 percent tax credit for transportation costs directly associated with donation of agricultural products.⁵⁵ Providing a targeted state tax credit to alleviate this cost is a significant benefit that could help incentivize additional food donation. Such a measure could encourage more food donors to provide transportation themselves, reducing the burden on food recovery organizations. At the same time, a transportation credit could encourage new players to get involved in food recovery efforts. For example, there are often opportunities to make use of available trucking capacity by transporting donated food as backhaul. New solutions, such as these, could play important role in connecting food donations to food recovery organizations, reducing the load on both parties while ensuring the transfer of surplus food. Similar to the general credit discussed above, this transportation cost credit could apply to all foods, or only to a subset of foods (e.g. agricultural products).



II. LIABILITY PROTECTIONS FOR FOOD DONATIONS

A. INTRODUCTION

Donating safe, edible food to those in need can significantly reduce the amount of food being sent to landfills and support food security. The Bill Emerson Good Samaritan Food Donation Act (Emerson Act), enacted by Congress in 1996, provides comprehensive civil and criminal liability protections across the nation for food donors and the nonprofits that receive and distribute food donations.⁵⁶ However, many potential food donors, including grocers and retailers, cite fear of liability as a primary deterrent to donating food;⁵⁷ many of these

businesses fail to donate because they are unaware of the available liability protections, or because they worry that the protections do not cover them.

The Emerson Act provides a federal baseline, which states cannot remove; however, states can offer additional liability protections. Pennsylvania, like most states, has enacted its own liability protection law, and provides both civil and criminal liability protection to food donors through the Donated Food Limited Liability Act.⁵⁸ Yet, Pennsylvania's law does little to strengthen federal liability protections for food donation, and the Commonwealth could take steps to increase its protections in order to enhance food recovery across the state.

B. FEDERAL LAW

The Emerson Act provides liability protection to a broad range of food donors,⁵⁹ including individuals, businesses, nonprofit food recovery organizations, government entities, and gleaners.⁶⁰ However, donors and food recovery organizations must meet the following four requirements to receive protection under the Emerson Act:

1. The food must be donated to a nonprofit organization in good faith;⁶¹
2. The food must meet all federal, state, and local quality and labeling requirements; however, it can receive protection even if it is not "readily marketable due to appearance, age, freshness, grade, size, surplus, or other conditions;"⁶²
3. The nonprofit organization that receives the donated food must distribute it to needy individuals;⁶³ and
4. The ultimate recipient must not pay anything of monetary value for the donated food.⁶⁴

So long as the above requirements are met, the food donor and the nonprofit food recovery organization receiving the food will be shielded from any civil or criminal liability that may arise from the donated food, unless either entity acts with gross negligence or intentional misconduct.⁶⁵

The Emerson Act's protections are broad, and it is intended to provide blanket protection across the nation in order to encourage food donors of all types to get their food to those in need. However, there are some instances where additional or clearer protection could better serve food donors and food recovery organizations. This leaves room for state legislatures to step in and offer additional liability protection above the federal floor.

C. PENNSYLVANIA LAW

Similar to federal law, Pennsylvania's Donated Food Limited Liability Act extends civil and criminal liability protections to any person who donates food and to the charitable or religious organization that then distributes the food,⁶⁶ as long as the following requirements are met:

1. The food must be donated to a charitable or religious organization in good faith;⁶⁷
2. Both the donor and the charitable recipient must "reasonably inspect" the food to make sure that it is "fit for human consumption;"⁶⁸
3. The charitable recipient must distribute the food to needy individuals "either for free or for a nominal fee;"⁶⁹ and
4. Charitable or religious organizations that receive and distribute food donations must be inspected by local health authorities "at regular intervals."⁷⁰

In addition to the above requirements, neither donors nor organizations that distribute food are protected if something happens on account of their "negligence, recklessness or intentional misconduct . . . or if [they have] . . . actual knowledge that the food is tainted, contaminated, or harmful to the health or well-being of the ultimate recipient."⁷¹ Donors do, however, receive liability protections when donating "food not readily marketable due to considerations not affecting its fitness for human consumption including . . . freshness[.]"⁷²

Pennsylvania also extends liability protections to the donation of wild game, so long as it is processed before reaching the end recipient.⁷³ This benefits programs like Hunters Sharing the Harvest, a nonprofit charity that facilitates the donation and processing of venison across the Commonwealth by connecting Pennsylvania hunters with coordinators, meat processors, and food banks.⁷⁴ In an average hunting season, Hunters Sharing the Harvest aims to channel 100,000 pounds of venison to regional food banks.⁷⁵

Yet, some of the terms in Pennsylvania's law are undefined, and some sections of the law seem to conflict, making the scope of the protections unclear. For example, the law protects donations "for ultimate free distribution to needy individuals," in one section,⁷⁶ and donations "for ultimate distribution to needy individuals, either for free or for a nominal fee," in another.⁷⁷ At the same time, yet another section states that any person or organization that, "sells, or offers to sell, for profit, food that such person knows to be donated pursuant to this act commits a misdemeanor of the third degree."⁷⁸ The lack of definition for the term "nominal fee," makes it unclear whether this provision would allow food recovery organizations to charge end recipients an amount sufficient to cover the cost of transporting and processing the food they distribute, especially because of the penalty for selling donated food. Though some food banks charge their affiliated agencies for the costs of transportation and handling donated food, none of the Pennsylvania food recovery organizations interviewed for this report charge final recipients a fee for food they distribute; furthermore, none of them were aware of any food recovery organizations in the state that do.⁷⁹ Food recovery organizations are understandably wary of experimenting with sales of donated food, even at what they believe to be a "nominal fee," given the provision criminalizing the sale of donated food.

Although Pennsylvania provides some protections for food donations, the Donated Food Limited Liability Act could be clarified and strengthened in several ways. The following recommendations identify ways in which the Commonwealth could encourage food donations and reduce food waste by strengthening liability protections.

D. RECOMMENDATIONS

1) Provide liability protections for food establishments, retail stores, and farms that donate directly to final recipients

Currently, liability protections are only available under federal and Pennsylvania law when food is donated to a nonprofit organization that then distributes that food to needy individuals. The requirement to send donated food through a food recovery organization can discourage donors from donating certain items. Thus, extending protections to donations made directly by certain food businesses to needy individuals could help increase efficiency and enable timely use of perishable food. Food recovery organizations are already overburdened; for example, one Pennsylvania food recovery organization reported that it receives more requests to pick up food than it can respond to.⁸⁰ Therefore, in certain cases it can be challenging to successfully donate, causing businesses to instead throw the food away.

Foodservice establishments with leftover prepared, perishable food may especially struggle to donate successfully, since food recovery organizations often do not have the capacity to get that food to people in need before it spoils. Further, sometimes businesses have small quantities of surplus food that would not be worth the cost of transporting to a food recovery organization for distribution. Finally, it can be difficult for farmers to donate surplus produce, since they are often located far from food recovery organizations and lack the infrastructure necessary to handle, process, or transport the food. In all of these cases, direct donation to needy individuals can make more sense than donation through a food recovery organization.

Providing protection for direct donations of whole produce by farmers, or any food products by licensed food establishments, could allow donors to donate more efficiently and get healthy, wholesome food to those in need. Food service establishments, retail stores, and most farms already comply with food safety certification requirements and inspections, and therefore know how to handle food safely. If such establishments are able to safely handle food for sale, further safety-motivated restrictions on direct donations should be unnecessary.

Seven states already provide liability protections for direct donations,⁸¹ demonstrating that such donations can be safe and beneficial to all parties. Other states are actively working to expand their liability protections to cover direct donations. For example, this year Texas passed a bill to offer liability protection when school districts and open-enrollment charter schools donate food directly on campus.⁸² In order to do this, a non-profit organization must designate someone who is directly affiliated with school (teacher, counselor, parent, etc.) as an official representative;⁸³ this allows schools to receive, store, and distribute food directly from the school campus, without having to transport it to a non-profit organization first. Typically, in order to receive liability protection for donated foods schools, like all other donors, must send the food to a nonprofit organization that then distributes it to end recipients.⁸⁴

Extending liability protection to direct donations likely will not change the habits of most food donors, who will prefer to donate through a food recovery organization for the convenience (food recovery organizations typically help with logistics and transportation), and in order to claim the federal tax incentive. However, extending protections could make a difference on the margins for certain donations, allowing more healthy, wholesome food to reach the plates of people in need.

2) Provide liability protections for food recovery organizations that charge end recipients for food

The Emerson Act only protects food donors and food recovery organizations when donated food is given away for free to end recipients. This means that it does not provide liability protections if the end recipients must pay for food, even at a reduced rate. Pennsylvania law covers food given away for free or for a nominal fee; yet, as noted above, the statutory language criminalizing the sale of donated food for profit effectively deters any sale of donated food. This restriction hampers development of new models and prevents existing food recovery organizations from broadening their offerings. Allowing food recovery organizations to sell some of their food at a low cost can help fill a need in communities where individuals are food insecure or lack regular food

access, but for various reasons are not willing or able to qualify for government assistance or use a food pantry or soup kitchen. Such models also offer the potential for an economically sustainable solution to food recovery because they recognize the labor, storage, and transportation costs of recovering food and allow those costs to be offset by end-user purchases.

New models can serve as valuable complements to traditional food bank or pantry operations. By providing some of the food they receive for sale at a reduced cost, food recovery organizations can use the funds generated to support their operations, thus helping them meet additional demand for their traditional services. This allows food recovery organizations to focus on collecting and distributing donated food, instead of chasing additional monetary donations to cover their operating costs. Furthermore, there is little risk of an organizations selling donated food to generate a profit; since the Emerson Act and Pennsylvania law require that the food recovery organization involved be a nonprofit or charitable organization, any funds generated from the sale of donated food must be used in furtherance of the organization's charitable purpose, rather than for commercial purposes or profit.

Pennsylvania should extend liability protections to organizations that sell donated food to end recipients at a price that covers the cost of handling and distributing the food. Fourteen other states have already done this.⁸⁵ For example, in Massachusetts, nonprofit food recovery organizations and their donors are protected from liability if they give food away for free or charge end recipients at a level "sufficient only to cover the cost of handling such food."⁸⁶ Daily Table, a nonprofit grocery store, has taken advantage of these expanded liability protections in Massachusetts, and provides an example of a successful innovative food recovery model.⁸⁷ Daily Table operates in a neighborhood with low food access and offers low-cost, nutritious, prepared foods, as well as a selection of produce, bread, dairy, and grocery items.⁸⁸ All of this food is sourced from a large network of growers, supermarkets, manufacturers, and other food suppliers who donate their surplus food, allowing Daily Table to keep prices affordable for all customers.⁸⁹

Some food recovery organizations have adopted other innovative models to creatively preserve the food they receive, thus prolonging its shelf-life, reducing unnecessary food waste, and directly increasing the amount and variety of food products available to needy individuals. These models give such organizations more options for how to distribute all of the food they receive. For example, food recovery organizations often receive large quantities of produce, milk, or other foods that they are unable to distribute while the products are fresh.⁹⁰ One easy solution is to process these foods, turning fruit into juice; vegetables into soup; and milk into yogurt or butter. Yet, it can be difficult for food recovery organizations to do this successfully because of the necessary up-front investment in infrastructure (e.g. commercial kitchen) and the ongoing expenses of labor and utilities. Providing liability protections to organizations that sell products as a way to cover the costs of such processing is a crucial step to making innovative operations like these possible.



One example of this model is La Soupe in Cincinnati Ohio, which uses produce that would otherwise go to waste to make and sell healthy meals to customers.⁹¹ By using funds raised from such sales, La Soupe is able to offset a portion of its operational costs, thereby allowing it to provide meals to food insecure individuals for free.⁹² Last year, the organization was able to divert 125,000 pounds of food from the landfill and to donate more than 95,000 meals to food insecure individuals.⁹³ Another similar example is Misfit Juicery in New York City and Washington D.C., which uses primarily produce that would otherwise go to waste to make juice.⁹⁴

Currently, unless located in one of the 14 states mentioned above, these kinds of innovative food recovery organizations cannot offer liability protection to their donors. This means that they must purchase the ingredients, rather than having them donated, in

order to offer the final products for sale. Pennsylvania can help food recovery organizations and solve this problem and develop more sustainable models by extending liability protections to organizations that charge end recipients a low price, or a price that covers the cost of handling and processing such food, for donated food.

3) Explicitly provide liability protections for the donation of safe, past-date food

Date labels on food rarely indicate a health risk, and typically only indicate the peak quality of a product (for a fuller discussion, see *Section III. Date Labeling*). Pennsylvania's Donated Food Limited Liability Act does not explicitly provide liability protections for past-date foods, but it does shield donors from liability when they donate "food not readily marketable due to considerations not affecting its fitness for human consumption including . . . freshness[.]"⁹⁵ While this category would likely include safe, past-date foods, the lack of explicit language allowing such donations may deter potential donors. While food banks in Pennsylvania report that they receive many past-date donations, they have received questions from potential donors regarding the donation of such foods, particularly past-date dairy.⁹⁶ Pennsylvania should remove this ambiguity by explicitly stating that donations of past-date foods are protected from liability. Massachusetts law provides a strong model, stating that "[n]o person who donates food, including open-dated food whose date has passed . . . shall be liable for civil damages."⁹⁷ Pennsylvania should follow this example to ensure that wholesome, safe past-date food is shared with those in need, instead of going to waste.

III. DATE LABELING

A. INTRODUCTION

Date labels are the dates stamped onto food items and accompanied by phrases such as "sell by," "use by," "expires on," or "best by." Many consumers mistakenly believe that eating food past the labeled date constitutes a safety risk and thus often needlessly discard such food.⁹⁸ Yet, in actuality date labels generally only indicate peak quality or freshness, not safety.⁹⁹ These dates are often set by the food's manufacturer, and are based on nothing more than an estimate of when the food will continue to taste fresh.¹⁰⁰ Nevertheless, they have a strong influence on consumer behavior – according to a survey conducted by the Harvard Law School Food Law and Policy Clinic, the National Consumers League, and the Johns Hopkins Center for a Livable Future, 37 percent of consumers always throw away food close to or past the date, while 84 percent throw such food away "at least occasionally," due to safety concerns.¹⁰¹ Date labels contribute to food waste by misleading consumers, often resulting in safe, wholesome foods being needlessly thrown away.

B. LACK OF FEDERAL LAW REGULATING DATE LABELS

With the exception of infant formula, there is currently no federal law regulating date labels on food products.¹⁰² Though Congress has delegated general authority to the U.S. Food and Drug Administration (FDA) and USDA to ensure food safety and protect consumers from deceptive or misleading food labeling,¹⁰³ neither agency has used this authority to create date label regulations.¹⁰⁴ Because the federal government has developed no standardized regulations for date labels, states and localities, including Pennsylvania, have been left to determine their own practices. The result has been widespread variation and inconsistency; no two states have the same rules regarding date labels.¹⁰⁵ For example, West Virginia requires date labels for eggs,¹⁰⁶ New Jersey requires date labels for dairy¹⁰⁷ and shellfish,¹⁰⁸ and New York requires no date labels at all.¹⁰⁹

The most effective solution would be federal action to standardize and clarify the date labeling system across the U.S.¹¹⁰ There have been several recent attempts to implement such a policy. The Food Date Labeling Act of 2016, introduced in both the House¹¹¹ and Senate,¹¹² aimed to standardize date labels to just two phrases: one indicating quality, and another for foods that might become riskier after the date. More recently, similar language regulating date labels was incorporated into the Food Recovery Act of 2017,¹¹³ a comprehensive bill targeting food waste reduction. Thus, there are ongoing efforts to solve this issue at the federal level.

However, in the absence of federal policy, and knowing that the timeline for passage of such policy is uncertain, Pennsylvania can take the lead on this issue by clarifying date labels on food products within its borders.

C. PENNSYLVANIA LAW

The Pennsylvania Department of Agriculture (PDA) requires date labels on milk and shellfish products but does not require nor regulate the labels on other food products.¹¹⁴ Milk sold in the Commonwealth must be marked with a “sell-by” date no more than 17 days after pasteurization.¹¹⁵ The label must use either the phrase “Sell by” or “Not to be sold after,”¹¹⁶ and milk may not be sold in Pennsylvania after this date.¹¹⁷ The regulation exempts the following products from its 17-day labeling requirement: ultrapasteurized dairy products, cultured dairy products, aseptically processed dairy products, “[d]airy products that have undergone higher heat shorter time pasteurization[.]” and milk that is sold in the same location that processed it.¹¹⁸ Though milk that is past its “sell-by” date may not be sold, it is legally allowed to be donated in Pennsylvania, and the food recovery organizations interviewed for this report all accept the donation of past-date milk.¹¹⁹ Yet although donation of past-date milk is allowed, the restriction on past-date sale contributes to stigma regarding the safety and suitability of this milk and creates confusion among donors and recipients about whether such milk can be donated.

PDA regulations also require packages of raw shucked shellfish to bear a ‘sell by’ or ‘best if used by’ date label,¹²⁰ but the regulation does not prohibit the sale or donation of past-date shellfish. Across the state, date labels on all other foods are unregulated, and can therefore be selected by manufacturers and retailers. The result is an inconsistent and dizzying array of different labels that further contributes to consumer confusion and food waste.

On the local level, additional labeling requirements exist. For example, in Allegheny County, the County Health Department regulates the labeling of all “retail refrigerated processed foods packaged in a modified atmosphere.”¹²¹ Modified atmosphere packaging increases the quality and longevity of refrigerated foods by making the internal atmosphere of their packaging different from that of the outside air.¹²² Foods packaged this way must be labeled with a “use by” date that may not exceed 14 days from retail processing;¹²³ they may not be sold after the “use by” date.¹²⁴

Consumer confusion about date labels is a major driver of food waste. Pennsylvania contributes to this confusion by requiring premature date labels on shellfish and milk products, while allowing an endless variety of date label language on other products. The Commonwealth directly creates waste by prohibiting the sale of past-date milk, even though this prohibition is not based on a justified health concern. Further, the 17-day rule for date labels on pasteurized milk is not common to other states and gives consumers less time to purchase wholesome product than the typical industry standard for milk date labeling (generally between 21–24 days).¹²⁵ The following recommendations identify ways that Pennsylvania could reduce food waste by regulating date labels in a more coherent manner.

D. RECOMMENDATIONS

1) Standardize date labeling language to clearly distinguish between food safety and food quality

In the absence of federal date label regulations, Pennsylvania has the authority to standardize date labeling in the Commonwealth. While most date labels indicate nothing more than a food’s peak quality, safety risks may increase after the date for a small category of foods (e.g., certain ready-to-eat foods, deli meats, and unpasteurized cheeses); this is currently not indicated on date labels. A standardized date labeling system should clearly distinguish between those date labels denoting quality versus safety. Therefore, Pennsylvania should adopt a *dual date labeling system* that defines two distinct standardized phrases for safety-based and quality-based date labels.

The Grocery Manufacturers Association (GMA) and the Food Marketing Institute (FMI), the two largest trade associations for retailers and consumer products manufacturing, have endorsed this approach. In February 2017, the two groups launched a

3) Educate the public about the meaning of date labels

Because confusion and inconsistency are ever-present obstacles in the date labeling sphere, PDA, the Pennsylvania Department of Environmental Protection (PA-DEP), the Pennsylvania Department of Health (PDH), or some combination of the three should educate Pennsylvania consumers, food vendors, donors, and food recovery organizations about the meaning behind these dates. Public education will be especially important if Pennsylvania standardizes date labels within its borders. Other states provide helpful examples of how to do this. For example, the Connecticut Department of Energy and Environmental Protection has posted an easy-to-use legal factsheet about date labeling on its website,¹³⁵ and the Florida Department of Agriculture and Consumer Services disseminated a paper handout explaining that date labels are generally not regulated and are not indicators of safety.¹³⁶

IV. FOOD SAFETY FOR FOOD DONATIONS

A. INTRODUCTION

There is no clear language in Pennsylvania's regulations about the specific safety measures required for food donation. Consequently, food donors and food recovery organizations often struggle to figure out which food safety regulations apply to the food they wish to donate or distribute. Prospective donors must do extra legwork to identify those regulations that may play a role in donating food. This can be especially overwhelming for donors that operate across different municipalities or states, and therefore must comply with various safety and donation laws that may contradict one another. The lack of regulations also means that food inspectors in Pennsylvania do not have well-defined guidelines to follow. Without clear guidelines, some overly cautious health inspectors discourage food donation altogether, which counters the goals of reducing food waste and food insecurity.

B. FEDERAL LAW AND ISSUES

The federal government generally does not regulate food safety for food establishments such as restaurants, institutional kitchens, and retail food stores, since these entities sell food within states, and the federal government only regulates food traveling between states in interstate commerce. As a result, states are responsible for regulating and enforcing food safety regimes for food establishments within their borders.¹³⁷ State food safety laws and regulations, however, are largely based on model federal food safety guidance published by FDA, the federal agency responsible for protecting the public health by ensuring the safety of the nation's food supply.¹³⁸

Developed by the Conference for Food Protection (CFP) and published by the FDA, the FDA Food Code is the primary guidance states follow when developing their own food safety laws.¹³⁹ It reflects the input of an array of stakeholders—including regulatory officials, industry representatives, academics, and consumers—that participate in a biennial CFP.¹⁴⁰ The FDA Food Code is not binding law unless a state or local government chooses to adopt it as such by passing a statute or incorporating it into regulations.¹⁴¹ Yet, all fifty states have adopted some version of the FDA Food Code,¹⁴² in large part because it was written by experts and represents a considerable investment of resources that states may not have the means to duplicate. Unfortunately, the FDA Food Code does not specifically address food safety for food donations; therefore, most states, including Pennsylvania, do not have a donation-specific section in their state food codes either.

In addition to the FDA Food Code, CFP has created the *Comprehensive Resource for Food Recovery Programs* (Comprehensive Resource), a federally-endorsed food donation guidance document intended for stakeholders working to create food recovery programs, with a focus on retail food establishments.¹⁴³ The Comprehensive Resource discusses how to create a food donation program that adheres to food safety standards. These guidelines, though an extremely useful resource for food recovery organizations, are not binding regulations for states, and businesses are not bound to follow the advice they contain. Further, since they are not incorporated into the FDA Food Code or mentioned in the Food Code in any way, they have limited reach and are not included into state law or provided as part of the training of health inspectors.

C. PENNSYLVANIA LAW

Pennsylvania does not have clear food safety regulations for food donation. There are no PDA regulations or guidance relating to food donation and no state legislation on the subject. The only relevant legislation is the Pennsylvania Donated Food Limited Liability Act, which as noted above, states that food donations are protected from liability so long as (1) the donor reasonably inspects the food at the time of the donation and finds it fit for human consumption; and, (2) the charitable or religious organization that accepts the food reasonably inspects it and determines it is fit for human consumption (see *Section II: Liability Protections for Food Donations* for more information).¹⁴⁴ Yet, this Act does not provide guidance to donors or food recovery organizations about how to properly inspect, transport, store, or serve donated food to ensure safety.

Pennsylvania's lack of comprehensive and clear state regulations or agency guidance outlining food safety requirements for donated food is a problem for food donors who do not know how to safely donate food, as well as for health inspectors who do not have clear guidance to follow when conducting inspections. Further complicating the situation, some areas of Pennsylvania are under the jurisdiction of PDA, while others are inspected by local municipalities, counties, or cities.¹⁴⁵ Regulations or guidance at the state level can clarify the requirements utilized by state inspectors, and also help to influence the training and inspection criteria used by local authorities.

D. RECOMMENDATIONS

1) Incorporate a specific food donation section into Pennsylvania's statewide food safety regulations and/or produce agency guidance clarifying food safety rules for food donors

PDA should develop regulations and/or policy guidance specifically focusing on food safety for food donations. Such regulations or guidance would help potential food donors to feel more at ease about donating by allowing them to understand the related safety requirements. This literature should be disseminated across all relevant agency websites, including those of cities and localities, enabling Pennsylvania businesses and other interested parties to find the information quickly and easily.

Guidance documents have been effective in other states and localities. For instance, San Diego, California has a "Too Good to Waste!" guide that details how to donate food safely and includes an easy-to-use safe food handling food donation checklist.¹⁴⁶ Additionally, the Department of Health and Human Services in Washington County, Oregon issued guidance for restaurants that includes a list of foods that can and cannot be donated, information on how to label donated food, as well as contact information to be used if donors have questions.¹⁴⁷

To ensure the clarity and effectiveness of the regulations or guidance, PDA should make sure to develop these documents in partnership with food recovery organizations and potential donors of different sizes from across Pennsylvania. Minnesota's Department of Health did this when it issued a guidance document on food safety for onsite feeding locations, food shelves, and food banks in partnership with various food recovery organizations.¹⁴⁸ The collaborative process resulted in a guidance document that encourages food donation, while also addressing the unique concerns of various potential food donors and ensuring the safety of all donated food.

Because control over food safety standards is divided between state and local agencies in Pennsylvania, it is critical that these actors communicate to make food safety regulations as uniform as possible across the entire state. Even though local governments have control over local regulations in some places, providing clear state regulations on food safety for donations can help circulate accurate food safety information, streamline requirements where possible, and influence local food safety agencies. Such uniformity is helpful because it facilitates donations of all kinds, especially those that take place across jurisdictional boundaries. Dealing with different sets of regulations or differing health department interpretations requires donors to spend extra time and resources to achieve compliance. Intentionally creating a uniform regulatory framework that applies across the entire state will encourage businesses to donate valuable food products that would otherwise be wasted.

2) Empower health inspectors to serve as ambassadors for safe food donation and arm them with handouts and information to give to food businesses when conducting inspections

All of Pennsylvania's health inspectors should receive training on safe food donation so that they can aid in the dissemination of information about donations. The 2011 Food Donation Policy of the Wyoming Department of Agriculture instructs health inspectors that they "should act as educators and consultants,"¹⁴⁹ positioning them to be advocates for food donation. Building on clear and comprehensive guidance on food safety for food donations, Pennsylvania should provide inspectors with training related to such food safety for food donations guidance, as well as detailed information about all food donation sites within reasonable geographic distance of their location. With that information on hand, inspectors will be well equipped to advise businesses about safe food donation and connect potential food donors with ready and eager recipients of the food.

V. SCHOOL FOOD WASTE

A. INTRODUCTION

Food waste in schools has long been a serious issue, and generally mirrors national rates of consumer food waste. Nationwide, elementary and secondary students waste about 2 pounds of food per student per month,¹⁵⁰ and a study published by the Harvard School of Public Health in 2013 found that 40 percent of food served in Boston middle schools was discarded uneaten.¹⁵¹ The study estimated that food wasted in schools across the country costs over \$1 billion each year.¹⁵²

The significant amount of food wasted in schools is important for several reasons. Most obviously, wasted school food means wasted nutritional value¹⁵³ and wasted money.¹⁵⁴ However, perhaps more importantly, food waste in schools represents a critical opportunity to teach the next generation of consumers that food is a valuable resource that should be conserved and reused. Efforts to reduce waste in schools can instill in young students better habits for conscientious consumption, reframing how children think about food. Since about 43 percent of food waste nationwide occurs in consumer homes,¹⁵⁵ training young consumers is an important strategy for reducing future waste.



There are many factors contributing to food waste in schools. For example, students generally have too little time to eat and rushed students eat less and throw away more.¹⁵⁶ At the same time, many schools mistakenly believe that all students must take milk in order for their lunch to be eligible for the National School Lunch Program (NSLP), when in fact this is not technically a requirement of the program.¹⁵⁷ Much of this milk is thrown away by students, who choose not to drink it based on personal preference, cultural norms, or even lactose intolerance.¹⁵⁸ Further, school administrators often mistakenly believe the federal government prohibits donation of leftover cafeteria food, and therefore throw away wholesome food that could otherwise be donated to those in need.¹⁵⁹ Schools can thus do much more to reduce their own waste and educate young consumers about the importance of conserving food.

B. FEDERAL LAWS

The federal government regulates school foods served under the NSLP and the School Breakfast Program (SBP), two federal programs that provide school children with lunch and breakfast during the school day.¹⁶⁰ Both programs reimburse all or a portion of the cost of a qualifying school meal for children who are eligible.¹⁶¹ Because these programs use federal money to procure food, schools must follow federal rules regarding nutrition and the use of food.¹⁶² As of 2016, over 3,400 schools and institutions across the Commonwealth participate in the NSLP.¹⁶³

The National School Lunch Act explicitly allows schools to donate leftovers from the NSLP and the SBP.¹⁶⁴ The Act specifies that schools are able to donate to any 501(c)(3) tax-exempt local food banks or charitable organizations.¹⁶⁵ It also explicitly states that schools donating excess food to a 501(c)(3) non-profit organization are protected by the same food donation liability protections set forth in the federal Bill Emerson Good Samaritan Food Donation Act (discussed in more detail in *Section II: Liability Protections for Food Donations*).¹⁶⁶

The federal government supports other food waste reduction measures in K-12 schools, as well. USDA has created several webinars aimed at educating stakeholders about how to decrease waste in schools.¹⁶⁷ These webinars give an overview of how to reduce, recover, and recycle food at the K-12 level; provide food safety, storage, and menu planning tips to reduce food waste; present guidance on recovering and donating uneaten school food; and detail how to compost school food.¹⁶⁸ Further, USDA and EPA jointly launched the U.S. Food Waste Challenge, in which organizations, including schools, can register to publicly declare their food waste goals and achievements.¹⁶⁹ Finally, EPA has also published a list of resources that can help schools avoid food waste.¹⁷⁰

C. CURRENT PENNSYLVANIA INITIATIVES

Although there are currently no laws or guidance in the Commonwealth related to food waste reduction in schools, several state agencies and school districts have launched initiatives in Pennsylvania that are helping to reduce school cafeteria food waste. For example, PA-DEP designed a composting project for students in grades 6-12,¹⁷¹ demonstrating its interest in reducing organic waste in schools. Unfortunately, because the project is only suggested, rather than required, it is unclear how many schools have adopted the project. Nevertheless, its inclusion on PA-DEP's website indicates a step toward promoting school food waste reduction measures in schools.

Another example is Project PA, a collaboration between the Pennsylvania Department of Education (PDE) and Penn State University designed to help Pennsylvania schools improve their nutrition environments and promote healthy eating.¹⁷² Project PA encourages schools to adopt practices from the Smarter Lunchroom Movement,¹⁷³ which primarily aims to nudge students to consume healthier foods in school lunchrooms.¹⁷⁴ The Smarter Lunchrooms Movement says, "It's not nutrition until it's eaten!" and thus focuses on encouraging students to both select the healthiest items in the cafeteria and then to actually eat them.¹⁷⁵ An added benefit of this mission is a reduction in waste, as students begin to eat more, and throw away less, food.¹⁷⁶ For example, one proposed practice is to manage portion size by using smaller containers, plates, and serving utensils.¹⁷⁷ Doing so reduces food waste at the source because smaller dishes encourage students to take only the food they are going to eat, creating less waste. Another Smarter Lunchrooms method, currently in place at Hershey Primary Elementary School, allows children to participate in designing school lunches by voting on favorite dishes and creating new names for them.¹⁷⁸ This initiative helps schools to create foods that children are interested in eating, and are therefore less likely to discard.

Project PA also administers a mini-grant program (each award is \$1,200) for Pennsylvania schools participating in NSLP to implement various tactics from the Smarter Lunchrooms Movement.¹⁷⁹ One grant recipient, Upper Dublin School District, used this grant to decrease the amount of milk and fresh and canned fruit wasted in its cafeterias.¹⁸⁰ The district used grant money to make minor adjustments: cafeteria workers reorganized the lunchroom to feature fruit and milk prominently in the front; began to serve cut, rather than whole, fruit; and verbally encouraged students to take milk and fruit.¹⁸¹ Since implementing these changes, not one carton of milk has been wasted and fruit and vegetable intake has increased by 30 percent.¹⁸² Simple and low-cost changes like these can thus have a big impact on waste in schools.

Some individual schools have also started food donation programs. For instance, one motivated parent, students, and food service workers in the Quaker Valley School District have come together to collect unused food and bring it to the Sewickley Community Center food pantry and child-care program.¹⁸³ Conducted with the support of school administrators and school district officials, this informal program could easily be adapted to schools across the state, especially if the PDE provides general guidance on how to organize such programs.

Currently, Pennsylvania has no formal program or guidance to reduce food waste in schools or assist schools in donating their surplus. The following recommendations highlight actions that the Commonwealth can take to address this issue, reducing the amount of food wasted while reframing how children think about food and raising a generation of more conscientious consumers.

D. RECOMMENDATIONS

1) Provide funding for schools to conduct food waste audits

The Pennsylvania General Assembly or the PDE should allocate funds for schools to conduct food waste audits. Food waste audits help schools track and determine how much food they waste, allowing them to better tailor any food waste reduction measures they then implement.¹⁸⁴ There are two types of food waste audits: back of the kitchen waste audits and plate waste audits. Back of the kitchen waste audits track the amount of food wasted before food is served to students, while plate waste audits track food wasted after being served to students. A plate waste audit can be accomplished by weighing each item from a school menu at the outset, and then setting up a weigh station of pre-weighed plastic tubs near the garbage cans.¹⁸⁵ Students can discard any excess of a specified food item into each tub. At the end of the lunch period, the tubs are weighed; the mass of the surplus food in each tub is recorded as the amount of that individual food wasted.¹⁸⁶

Food waste audits can help determine which foods students are least likely to eat and help to ensure that the proper amount of food is prepared based on past history; according to USDA, this is the most effective way of minimizing school food waste.¹⁸⁷ Yet, both back of the kitchen waste audits and plate waste audits require funds for proper implementation and materials. Pennsylvania should provide funds to support audit initiatives, allowing for real reduction in food waste and money saved in the long run.

One such plate waste audit at Washington Elementary School in Fayetteville, Arkansas found that on average 10-15 unopened milks were thrown in the trash each day.¹⁸⁸ After the audit, the school posted a sign in the serving area stating that students do not have to take milk, provided cups for water, and provided a share table for students to place unopened milks. Taken together, these measures led to a 20 percent decrease in milk waste at the school.¹⁸⁹ At the collegiate level, the University of Pittsburgh conducted a food waste audit in 2016, finding that in one cafeteria about 339 pounds of food were wasted each day.¹⁹⁰ Of this waste, 63 percent was post-consumer and 37 percent was pre-consumer waste; overall, 71 percent was recoverable, meaning that it could be safely donated to those in need.¹⁹¹ After this audit, the University of Pittsburgh was able to implement several targeted food waste reduction strategies, including reducing plate sizes, switching to smaller serving pans, and encouraging composting for any food waste that cannot be recovered.¹⁹²

2) Expand Offer Versus Serve to elementary and middle schools

Under the NSLP, reimbursable meals consist of five components: fruit, vegetable, whole grain, meat/meat alternative, and milk.¹⁹³ Because students waste food when they are forced to take items they do not plan to eat, USDA encourages schools to adopt a method called Offer Versus Serve (OVS), which allows students to decline up to two NSLP items, as long as they take a serving of fruit or vegetable.¹⁹⁴ By contrast, students in schools without an OVS policy must receive a tray that includes each food component in order for the meal to be eligible for reimbursement.¹⁹⁵ OVS is optional in elementary and middle schools, but USDA regulations require high schools to use OVS.¹⁹⁶ PDE should establish OVS as the official lunch service method for all

PROVEN FOOD WASTE REDUCTION STRATEGIES FOR K-12 SCHOOLS

Reduce food waste at its source:

- Implement Offer Versus Serve in all schools
- Switch to trayless dining
- Mandate at least 30 minutes for lunch
- Have lunch right after recess or gym class

Recover surplus food for donation:

- Provide share tables for kids to leave unwanted surplus food
 - Start a food donation program for excess food
-

grade-levels across the Commonwealth. To accompany this, PDE should publish guidance language on its website explaining and encouraging how to adopt this practice. Finally, after adopting OVS as a policy, individual schools should be required to monitor trends in student preferences and adjust food ordering practices accordingly. For example, some student populations are less likely to drink milk for cultural or dietary reasons; after implementing OVS, schools serving these populations should recalibrate their milk ordering to minimize the amount that goes to waste.¹⁹⁷ Information on how to adjust procurement practices should also be included in any PDE guidance on OVS.

3) Lengthen lunch periods and schedule lunch after recess

Students often waste food when they do not have enough time to eat during the lunch period.¹⁹⁸ Elementary school students in particular discard a great deal of their food due to a lack of sufficient time to eat.¹⁹⁹ USDA encourages schools to offer at least 30 minutes of lunchtime,

and following this recommendation could reduce plate waste by nearly one-third.²⁰⁰ In a recent study, researchers attempted to correlate length of lunch time to amount of food wasted. The research found that students with 25 minutes to eat lunch consumed 77.2 percent of their entrees and 46.6 percent of their vegetables;²⁰¹ by contrast, with fewer than 20 minutes to eat, students consumed only 64.4 percent of their entrees and 34.8 percent, of their vegetables.²⁰² To give students enough time to select and eat their meals, the General Assembly or individual school districts can mandate longer lunch periods, and PDE can recommend longer lunches.

Schools can also consider scheduling recess before lunch, in order to increase consumption of healthy foods, while reducing the amount of food waste generated. A growing movement, “Play Before Eat” or “Recess Before Lunch” prevents children from rushing through lunch to play outside; this reduces stomachaches and headaches from exercising immediately after eating and can make kids calmer and hungrier, in general, during the lunch period.²⁰³ According to one study, students who attended recess before lunch wasted about 30 percent less food,²⁰⁴ yet, only 4.6 percent of schools nationwide have arranged their schedules like this.²⁰⁵ Thus, the simple step of switching the traditional recess and lunch schedule can have serious impacts on child nutrition and food waste at the same time.

4) Encourage schools to switch to trayless dining

Trayless dining has been shown to reduce food waste by subconsciously discouraging consumers from taking more food than they can eat.²⁰⁶ Additionally, eliminating trays has the added benefit of reducing the costs associated with purchasing and handling trays, thus saving schools and school systems more money.²⁰⁷

At the collegiate level, this has already begun in Pennsylvania. In 2008, the University of Pennsylvania switched to trayless dining, realizing that the change would reduce food waste and conserve water and energy by eliminating the need to wash trays.²⁰⁸ Furthermore, during a pilot trayless Tuesdays program in 2009, Moravian College saw a 25 percent reduction in food waste, and, as a result, decided to go completely trayless.²⁰⁹ Other Pennsylvania colleges continue to follow suit. For example, in 2015, after realizing that it produced almost 70,000 pounds of food waste annually, Penn State’s Findlay Commons adopted a trayless dining model.²¹⁰

Trayless dining can be used effectively in both middle and high schools; however, while banning trays from elementary schools would help eliminate waste, it might be difficult for younger students to navigate the lunchroom without a tray. Thus, this policy

should focus on trayless dining policies in middle and high schools. Currently each school district in Pennsylvania is allowed to switch to trayless dining at its discretion, but PDE should take initiative on this issue and produce guidance and information encouraging adoption of this practice in secondary schools.

5) Create guidance documents on implementing school food donation programs

Donation is a great way for schools to recover unopened and uneaten food and get it to those in need. However, without guidance on how to design and implement food donation programs, schools may not know they are allowed to donate or may not be able to develop their own programs independently. By putting out a guidance document on best practices for school food donation and adding language to the PDE website regarding school food donations, the Department can help encourage schools to start their own donation programs. PDE should also put language on its website informing schools that USDA supports the donation of surplus food;²¹¹ NSLA explicitly allows schools to donate leftovers;²¹² and schools, like other entities donating food, are protected from civil and criminal liability by the Emerson Act (see *Section II: Liability Protections for Food Donations* for more information).²¹³ As helpful examples, Indiana's Department of Health²¹⁴ and California's Department of Education²¹⁵ have created guidance documents on food donation best practices for schools in their states.

6) Encourage the use of share tables

Share tables allow students to put uneaten food still in its original wrapper or peel on a table, after which another student can take the food for free or the school can resell or donate it.²¹⁶ "Share tables" are supported by the USDA as a method of food recovery to reduce food waste.²¹⁷ PDE can encourage the use of share tables by providing clear guidance on the implementation of share tables to ensure schools know about this option. For examples of how to do this effectively, Pennsylvania should consider guidance documents on share tables produced by the California Department of Education²¹⁸ and Wisconsin Department of Public Instruction,²¹⁹ which confirm that share tables are permitted and explain the criteria that schools must follow.

7) Create incentives—such as challenges, grants, and awards—for schools to reduce waste

State and local governments can use financial resources or recognition to motivate schools to make progress in food waste reduction. Monetary rewards show the importance of reducing food waste and reflect the economic benefits of such efforts. If no funds are available, states or districts can create challenges that honor schools that have made impressive strides towards reducing food waste. The Project PA mini-grant program, mentioned above, has already made headway in incentivizing schools to make positive changes related to nutrition. Modifying this grant program to adopt a more explicit food waste focus and increasing the number of grants available could have a major impact on reducing Pennsylvania's food waste.



VI. ORGANIC WASTE BANS AND WASTE RECYCLING LAWS

A. INTRODUCTION

Of the forty percent of food wasted in the U.S. each year, the vast majority ends up in the landfill.²²⁰ Discarded food items are now one of the largest components of municipal solid waste, comprising approximately 21 percent of all waste in landfills.²²¹ And as this food decomposes in landfills, it releases methane, a greenhouse gas with at least 25 times the global warming potential of carbon dioxide.²²² In fact, decomposition of wasted food now comprises 23 percent of all methane emissions in the U.S.²²³ At the same time, Pennsylvania landfills are becoming overcrowded,²²⁴ and similar trends across the country have prompted many states and municipalities to search for new ways to reduce the amount of waste sent to landfills. Restricting the amount of food waste that can be sent to landfills offers a solution to these all of these problems.

Organic waste bans or organic recycling mandates encourage businesses to treat excess food as a valuable commodity that can be diverted to higher uses, such as donation, recycling, or composting. This shift in perspective can lead to many positive results. For instance, after Vermont implemented an organic waste ban, the Vermont Food Bank saw food donations increase by 60 percent the following year.²²⁵ Moreover, organic waste bans can stimulate a state's economy: an economic analysis of Massachusetts' organic waste ban found that over 500 jobs were created over two years,²²⁶ a 150 percent increase over jobs supported before the ban.²²⁷ Further, the Massachusetts ban yielded over \$175 million in industry activity.²²⁸

Five states and several localities have passed organic waste bans or waste recycling laws geared toward reducing food waste.²²⁹ Each of these five states prohibits certain entities from sending organic waste, include food waste, to landfills. Four of these states — Connecticut,²³⁰ Rhode Island,²³¹ Vermont,²³² and Massachusetts²³³ — have organic waste bans. These laws limit the amount of organic waste that generators (the businesses, institutions, and other entities that create organic waste) can send to the landfill, but allow generators themselves to determine how best to divert their waste. California, on the other hand, has a waste diversion law that specifically requires commercial organic waste generators of a certain size to compost or anaerobically digest organic waste.²³⁴ The four organic waste bans vary in terms of the types of food waste generators (i.e., businesses, institutions, households) they cover, how much waste a generator must produce in order to be covered by the law, and whether otherwise-covered waste generators can be exempted as a result of their distance from a composting or anaerobic digestion (AD) facility.²³⁵

For example, in Massachusetts, businesses and institutions are limited to disposal of one ton of food waste in the landfill per week, regardless of their proximity to a composting or AD facility.²³⁶

At the local level, a number of municipal laws exist that seek to divert food from landfills. For example, in 2013, Austin, Texas amended its organic waste recycling law, the Universal Recycling Ordinance, to require all food service enterprises 15,000 square feet and larger to compost food scraps by October 2016.²³⁷ By October 2017, all those larger than 5,000 square feet will be required to comply, and in October 2018 the ban will be extended to all food service enterprises.²³⁸ This amendment to the existing ordinance is part of the city's Zero Waste Initiative, which aims to reduce the amount of waste sent to the landfill by at least 90 percent by 2040.²³⁹

Organic waste bans and waste recycling laws are outcome-oriented, rather than process-oriented, giving businesses the freedom to choose how they will prevent food waste and keep food out of the landfill. Both types of laws ultimately require that food waste generators reduce their food waste or ensure whatever food waste they do produce is not being sent to a traditional landfill. Ideally, these types of laws are accompanied by government technical assistance and funding to incentivize participation, reward good work, spur the development of organic waste recycling infrastructure, and educate stakeholders and businesses about compliance. Organic waste bans and waste recycling laws have the potential to foster transformational change because they change the default in the way food is treated, forcing food businesses to treat food as a resource or internalize the costs of wasting it.

B. CURRENT PENNSYLVANIA INITIATIVES

Pennsylvania is currently developing a ten-year waste management plan for the state through the Solid Waste and Recycling Advisory Committee at PA-DEP. Some of the plan's goals include increasing recycling and reducing waste.²⁴⁰

At the local level, Philadelphia has taken some great steps toward reducing organic waste. In 2016, the city created a Zero Waste and Litter Cabinet tasked with developing a comprehensive plan to reduce the amount of waste that ends up in landfills and incinerators by 90 percent by 2035.²⁴¹ Currently, businesses and residents in Philadelphia produce nearly 1.5 million tons of municipal solid waste annually, 60 percent of which ends up in the landfill.²⁴² At the same time, over 400,000 tons of organic waste are thrown away as trash each year.²⁴³ The comprehensive plan outlines a four part strategy that involves targeting waste reduction and diversion in buildings and at city events; engaging the public in waste reduction efforts; and developing city-wide single stream recycling and organic materials collection.²⁴⁴ Nic Esposito, Zero Waste and Litter Director at the Managing Director's Office attests, "[s]etting a zero waste goal without having organic [waste] diversion is inconceivable."²⁴⁵

C. RECOMMENDATIONS

1) Implement an organic waste ban or waste recycling law

Pennsylvania should enact an organic waste ban or organic waste recycling law. Such a law would reduce food waste and preserve landfill space, while also creating tangible benefits for the community and the environment. First, an organic waste ban or waste recycling law would likely increase donations of healthy, wholesome food to those in need, as seen in Massachusetts and Vermont.²⁴⁶ Second, diverting organic waste to composting or AD could play a role in improving the quality of Pennsylvania's farmland. Pennsylvania has over 7.5 million acres of farmland,²⁴⁷ and the health of these soils—especially soil organic content—is the foundation of its agricultural production.²⁴⁸ Adding organic matter inputs, such as compost and digestate, the byproduct of AD, can provide much-needed nutrients to soil, improving crop yields and productivity, while serving as a direct substitute for artificial, commercial fertilizers.²⁴⁹ Composting and AD also provide other potential benefits, such as job creation and economic development. Pennsylvania has the unique opportunity to be at the vanguard of adopting new policies surrounding the disposal of organic waste, while also applying the lessons learned by the five states that have already adopted such laws.

Organic waste ban legislation should take into account the existing infrastructure, as well as the distance between food waste generators and approved composting or processing facilities. Currently, there are 48 aerobic composting facilities and 14 AD facilities across Pennsylvania;²⁵⁰ yet 32 of Pennsylvania's 67 counties do not have composting or AD facilities at all.²⁵¹ For instance, there is currently no composting facility in Philadelphia with the capacity to accept tons of food waste.²⁵² As such, Pennsylvania might consider modeling its organic waste ban after Vermont's, which initially included an exemption for businesses more than 20 miles from a facility, but also set a date (2020) by which all covered generators would be required to comply, regardless of distance from a processing facility.²⁵³ Such a provision would ensure that businesses are able to comply when the ban goes into effect, but would also drive creation of more infrastructure in areas where it does not currently exist. Another consideration in drafting the details of an organic waste ban should be the diversity of sizes of food waste generators in the state.²⁵⁴ Some state laws only cover generators if they produce a large amount of organic waste per week, per year, or by volume.²⁵⁵ Yet, state and local food waste bans can divert larger quantities of waste by taking an inclusive approach in defining the types and sizes of generators that are required to comply with the laws.²⁵⁶ This is especially true, since according to ReFED, 43 percent of food waste is produced at the consumer level.²⁵⁷

Finally, any organic waste ban or recycling law that Pennsylvania adopts should go beyond simply encouraging composting and organic waste recycling. In such a law, Pennsylvania should reinforce the priorities of reducing food waste at its source and diverting surplus food to people in need. This can be done by providing waste generators with education and guidance, sharing the EPA Food Recovery Hierarchy and enumerating different methods of handling surplus food, as well as prioritizing prevention and recovery over recycling and disposal.



2) Provide funding to develop composting or anaerobic digestion infrastructure

The Pennsylvania General Assembly should allocate state funds to support the development of composting and AD infrastructure. Organic waste recycling facilities can be extremely costly to build. For example, construction of a large AD facility that processes 50,000 tons per year costs around \$20 million to build,²⁵⁸ while large composting facility that processes up to 40,000 tons per year costs around \$5-9 million to build, and \$17-28 per ton to operate.²⁵⁹ In order to encourage companies to make the up-front investment in this infrastructure, Pennsylvania can provide grant or loan funding to offset some of the costs. This is especially important if the Commonwealth

chooses to implement an organic waste ban, as increasing such recycling capacity will be a critical component of compliance. For example, in support of the Massachusetts organic waste ban, the Massachusetts Department of Environmental Protection (Mass DEP) administers a Sustainable Materials Recovery Program (SMRP) which offers grants for cities, towns, regional entities, and nonprofits.²⁶⁰ SMRP grants have been used to fund recycling and composting equipment, school recycling, and organics capacity development projects.²⁶¹ Yet, whether or not a ban is in place, increasing Pennsylvania's ability to sustainably process inedible food waste is an important goal, and one worth investing in.

3) Encourage farmers in the Commonwealth to develop composting facilities by scaling up existing support programs

In order for an organic waste ban to be effective, waste generators must be able to access composting and AD facilities where organic waste can be appropriately processed. One way to expand the number of composting facilities in the state is to encourage farmers to develop composting facilities. Pennsylvania Resources Council's Regional Composting Infrastructure Initiative is one

resource that could be helpful in this effort.²⁶² Pennsylvania currently regulates small-scale composting on farms and requires a permit for such facilities.²⁶³ The Initiative helps farmers obtain the permits they need to open their own composting facilities.²⁶⁴ Since 2013, the program has helped eight farmers obtain composting permits from PA-DEP, which has allowed these farms to process over 9,000 tons of compostable waste, producing over 4,500 tons of compost.²⁶⁵ Yet, despite all that the Initiative has achieved, the program must be scaled-up significantly if it is to add meaningfully to Pennsylvania's composting infrastructure. The Commonwealth should dedicate more resources to help farmers obtain permits, develop facilities, and build capacity for on-site composting.

4) Draft regulations for permitting non-municipal commercial organic waste processing facilities

Currently, Pennsylvania regulates the creation of both farm-based composting facilities²⁶⁶ and municipal composting facilities.²⁶⁷ Because an organic waste ban will require increased access to organic waste processing facilities, cities and localities in Pennsylvania should develop a permitting system for the creation of non-municipal commercial composting facilities of varying sizes and capacities.²⁶⁸ Increasing the diversity of types of organic waste processing facilities will facilitate the transition to an organic waste ban by making such facilities more widely accessible across the Commonwealth.

5) Provide guidance to businesses about how to comply with the ban, and outline best practices for food donation, composting and AD, and other diversion tactics

Any organic waste ban legislation should adequately guide food waste generators to comply with the law and maximize waste reduction and diversion. For example, the Massachusetts Department of Environmental Protection (Mass DEP) provides extensive guidance on its website about the state's commercial organic waste ban, including tips on how to estimate one's food waste production, compliance guides for businesses and solid waste facilities, and case studies of successful food diversion and composting programs.²⁶⁹ Mass DEP also works with RecyclingWorks Massachusetts, a recycling assistance program operated by the Center for EcoTechnology, to provide direct technical assistance to covered generators and additional online resources.²⁷⁰ The RecyclingWorks Massachusetts page includes links to further guidance from outside organizations, including fact sheets about tax incentives and liability protections for food donation.²⁷¹ This kind of information should be disseminated in Pennsylvania, particularly on state agency and local government websites.

6) Provide funding for localities to implement curbside composting programs

Over 150 communities, from Cambridge, Massachusetts to San Francisco, California, have implemented municipal curbside composting programs to divert food waste.²⁷² Curbside composting programs are voluntary or mandatory programs enabling residents to separate and dispose of their compostable waste, as they would with garbage and recycling.²⁷³ They allow households to reduce their environmental impact by diverting their food waste from landfills, and have been very successful in reducing the amount of household organics going to the landfill. For instance, during the first year of a free weekly curbside composting pilot program, in Cambridge, Massachusetts, over 600 participating households collected over 170,000 pounds of food scraps using free curbside bins, in-house containers, and compostable bags.²⁷⁴ The average amount of organic waste collected was 6.6 pounds per household per week, reducing trash by nearly 35 percent.²⁷⁵

Policymakers in towns and communities across Pennsylvania should partner with composting businesses to start curbside composting programs. Many townships and counties across the state already offer curbside composting for yard waste²⁷⁶ and others are considering the implementation of curbside programs for food waste.²⁷⁷ In Philadelphia, the Streets Department is conducting an Organics Feasibility Study to assess the investment and development necessary for city-wide organics collection.²⁷⁸ The results of this study, along with the leadership of townships and counties across the state serve as useful examples and data if Pennsylvania decides to adopt a statewide curbside composting program.

VII. GOVERNMENT SUPPORT FOR FOOD WASTE REDUCTION

A. INTRODUCTION

While individuals, businesses, and organizations may want to participate in food waste reduction and recovery efforts, the financial burdens of doing so can be limiting. Further, lack of knowledge about the amount of food wasted, the importance of reducing food waste, or the protections and incentives available to food donors pose barriers to increased donation. Pennsylvania should serve as a model and leader, making a strong commitment to invest in food waste reduction awareness and other initiatives at the state level.

Pennsylvania has created several important programs to reduce hunger, as well as some preliminary steps to address food waste, however, much more can be done. This section identifies ways that the Commonwealth can promote food waste reduction through a public education campaign, a state-wide food waste challenge or certification system, and by providing funding for food recovery infrastructure and innovative food waste apps and technologies.

B. CURRENT PENNSYLVANIA INITIATIVES

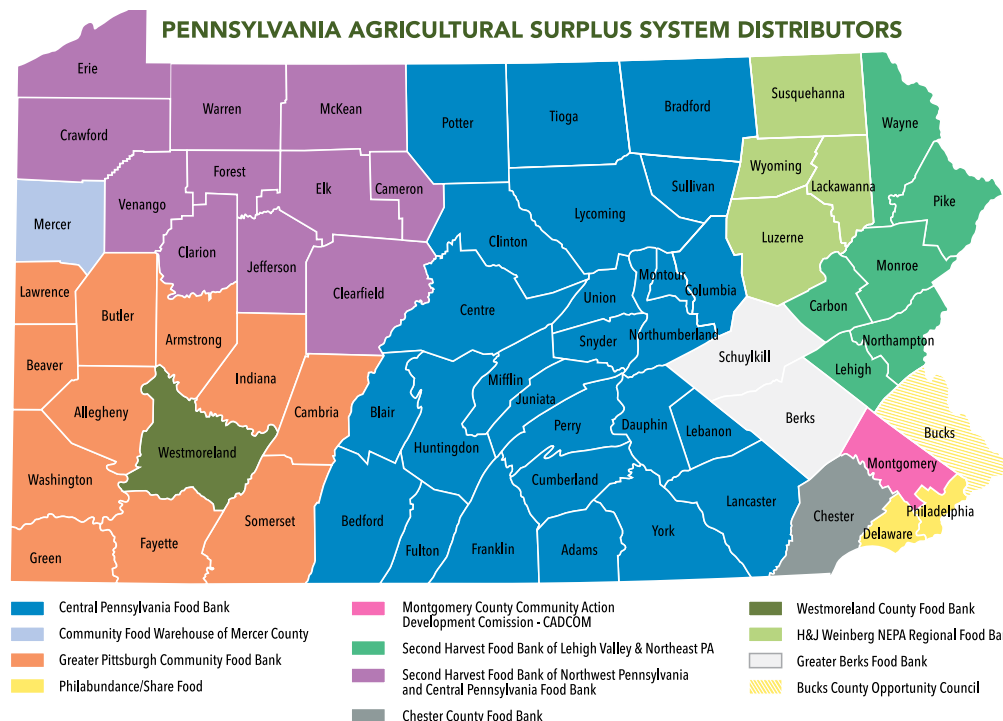
Pennsylvania has a number of government initiatives—ranging from grant programs to inter-agency collaborations—to address food insecurity. One of the strongest examples is the State Food Purchase Program (SFPP), operated by PDA, which provides grants to counties, regional food banks, and emergency food providers to purchase and distribute food to low-income individuals.²⁷⁹ Under SFPP, participating organizations must purchase food at wholesale, competitive bid prices,²⁸⁰ and donate that food to end recipients at no cost.²⁸¹ In fiscal year 2016–2017, the General Assembly allocated \$19,188,000 for the program,²⁸² \$1,000,000 of which was earmarked for the Pennsylvania Agricultural Surplus System (PASS).²⁸³

Through PASS, PDA contracts with a “charitable food assistance network” to connect the state’s agricultural growers and processors with food banks and other emergency food providers, allowing them to offer healthy, nutritious food to low-income Pennsylvanians.²⁸⁴ The contractor must identify farmers willing to contribute product; help to transport it in a cost-effective manner; and create incentives for members of the food industry to “donate, sell, or otherwise provide food products, including reimbursement for services provided.”²⁸⁵ PDA has chosen the Central Pennsylvania Food Bank through a competitive bidding process to implement PASS.²⁸⁶

PASS is an amazing program that increases access to fresh, local produce, dairy, and protein for Pennsylvania’s low-income residents, while providing support for farmers in the state. At the same time it plays a role in reducing food waste by targeting surplus agricultural products. While the authorizing language is quite broad with regard to the food that can be acquired using PASS funds²⁸⁷—growers, packers, and processors may either donate or sell product to the contractor²⁸⁸ and food is not explicitly required to be surplus²⁸⁹—much of the food acquired under the program is indeed surplus or rescued product. The memorandum of understanding between Central Pennsylvania Food Bank, the PASS contractor, and PASS subcontractors further supports this, stating that food must be acquired directly from a grower or producer (wholesale and retail products are not eligible)²⁹⁰ and that PASS funds should not be used to purchase product directly, but rather to offset the costs of donating food (e.g. harvesting, packaging, processing, or distributing product).²⁹¹

In practice, PASS has been extraordinarily successful at connecting food insecure individuals in Pennsylvania with local and healthy surplus product. Since it was first funded in 2015, more than 3.9 million pounds of food have been distributed to over 585,000 Pennsylvania households.²⁹² In total, 39 different products (e.g. fruits, vegetables, dairy, meat) from 78 farmers were distributed in all 67 Pennsylvania counties.²⁹³ At the same time, PASS has been valuable for farmers in the state. Just this year, Land O’Lakes, Inc. donated four truckloads of surplus milk, which were processed into 28,000 pounds of cheddar cheese using PASS dollars.²⁹⁴ This cheese was then distributed to three food banks across the state to give to food insecure families.²⁹⁵ Candice Dotterer, a Land O’Lakes dairy farmer, testified on behalf of PASS, stating that the program provides farmers with a means to redirect surplus

milk to people in need, rather than throwing it away.²⁹⁶ Further, Dave Masser of Sterman Masser Potato Farms commented, “We now have a mechanism for our farm to recover a portion of the fixed costs associated with packaging and distribution of our donated potatoes...It has truly been a win-win.”²⁹⁷ On the whole, PASS appears to be fulfilling its mission quite successfully. However, the program has to walk a delicate balance between serving its three goals of sourcing healthy products for food banks, supporting farmers in the state, and reducing surplus, all while being funded with only \$1 million for the whole state. More funding is needed to maximize the impact of the program, and other support is needed to further food waste reduction across the state and in all sectors.



In addition to PASS, Governor Wolf recently increased state government’s hunger relief efforts by creating the Governor’s Food Security Partnership to develop and implement strategies to reduce hunger and increase access to nutritious foods in Pennsylvania.²⁹⁸ The Secretaries of Aging, Agriculture, Community and Economic Development, Education, Health, and Human Services are members of the partnership, a primary goal of which is to increase inter-agency coordination.²⁹⁹ In 2016, the Partnership issued its strategic plan, *A Blueprint for a Hunger Free PA*,³⁰⁰ making a commitment to “identify barriers to recovering uneaten and unused food, engage partnerships to improve food recovery, and share best practices in food recovery.”³⁰¹

The Commonwealth also has ordered Pennsylvania agencies to be conscious of food waste. A 2011 Management Directive from the office of former Governor Corbett orders all agencies to ensure that any excess prepared food they order be donated, instead of thrown away.³⁰² Under this directive, any agency that orders prepared food must include a provision in the contract that requires the donation of excess food.³⁰³

Finally, as described earlier, Pennsylvania also operates the Charitable Food Program, which provides a 55 percent tax credit to a limited number of donors to charitable organizations³⁰⁴ (see *Section I: Tax Incentives for Food Donations*). Yet, while these preliminary anti-hunger and food waste reduction efforts are vital, there is more that the Commonwealth can do to support food waste reduction. The following recommendations identify other steps that the Commonwealth could take to promote food waste reduction through education, awareness, and funding.

C. RECOMMENDATIONS

1) Broaden and expand public education regarding food waste and food recovery

Pennsylvania should make information about food waste and food recovery more readily available to its citizens. Currently, PA-DEP has a web page with educational materials about composting,³⁰⁵ and general waste reduction.³⁰⁶ However, neither page mentions food donation as a way to reduce waste, and the waste reduction page does not mention food waste at all.³⁰⁷ State agencies should work together to better educate Pennsylvania consumers and businesses about how to reduce food waste.

The Governor's Food Security Partnership provides an opportunity for them to do this. Through the Partnership, Pennsylvania agencies should create a public education campaign for consumers and businesses. Most consumers are unaware of the amount of food wasted in the U.S., despite the fact that 43 percent of waste nation-wide occurs at home.³⁰⁸ At the same time, consumer-facing businesses, which are responsible for 40 percent of the nation's food waste,³⁰⁹ may not be aware of the legal protections extended to food donors, the opportunity to participate in CFP, or where to go to donate food. State and local governments can disseminate information about food waste reduction and donation by publishing it on their websites, hosting educational seminars and conferences, providing training sessions and running media campaigns. Vermont's Department of Environmental Conservation provides a good model, hosting a webpage that lays out how, why, and where businesses should donate food in the state.³¹⁰ The page explains federal and Vermont law surrounding food donation and includes a link to an interactive map of organizations that accept food donations, as well as recycling and composting facilities.³¹¹

The Commonwealth could also partner with outside business or nonprofit organizations to run such a campaign. For example, the Natural Resources Defense Council partnered with the Ad Council to create the Save the Food campaign, which uses bold images and relatable statistics to educate consumers about food waste.³¹² Pennsylvania could partner with the Save the Food campaign to utilize its experience and resources in a state campaign. In the United Kingdom, the Waste and Resources Action Programme's "Love Food Hate Waste" campaign reduced consumer food waste nationwide by 21 percent in five years.³¹³ The program cost £26 million over five years to implement, but was responsible for £6.5 billion in savings to households in avoided food costs, as well as £86 million in savings to U.K. government authorities in avoided waste disposal costs.³¹⁴ Altogether, the initiative reaped a total benefit-cost ratio of 250:1.³¹⁵ Pennsylvania should allocate funds for educational campaigns, workshops, and training sessions to help turn the tide of consumer food waste.

2) Encourage food waste reduction through a food waste reduction challenge or certification program

Pennsylvania should incentivize food waste reduction by organizing challenges to inspire businesses to reduce their food waste. Challenges call on businesses to take steps to meet a target waste reduction goal, in return for public recognition from the state government. By challenging businesses to reduce their waste and quantify it publicly, Pennsylvania can promote the issue of food waste and reward those taking steps to reduce it. These kinds of challenges have been successful elsewhere. In New York City, a Zero Waste Challenge encouraged businesses to cut food waste by 50 percent, and resulted in the diversion of 36,910 tons of food waste over six-months,³¹⁶ including 322 tons donated to people in need.³¹⁷ Awards were given to companies that diverted 50, 75, or 90 percent of their waste from the landfill, as well as those that diverted the most waste overall or showed greatest improvement.³¹⁸ A state-wide food waste challenge, run through PDA or PA-DEP, could have similar positive results in reducing the amount of organic waste in the landfill.

An alternative to the challenge model is a certification program. Pennsylvania could set different benchmarks for food waste reduction, either by tons of waste diverted annually or percentage of total waste diverted. It could then publicly recognize businesses that meet these benchmarks, and certify the level of success they were able to achieve with a grading system (e.g.

gold, silver, bronze). Such a program could foster competition among businesses eager for public recognition and the attention of increasingly discerning consumers.

In designing a certification program, Pennsylvania could look to the U.S. Zero Waste Business Council (USZWBC) a subsidiary of the U.S. Green Building Council (which administers LEED certification).³¹⁹ USZWBC issues certifications to facilities that, among other things, achieve 90 percent overall diversion from landfill and incineration for their non-hazardous waste.³²⁰ Facilities can qualify for bronze, silver, gold, or platinum level certification, depending on how much waste they divert and the method by which they divert it (e.g. a facility that collects compostables separately receives fewer points than one that uses compost to grow food onsite for company use).³²¹ A certification program like this could be a cost-effective way for Pennsylvania to incentivize local businesses to reduce food waste.

3) Expand funding for PASS

As discussed above, PASS plays a critical role of getting healthy food to those in need, supporting Pennsylvania farmers, and providing a market for surplus product from farmers and growers in Pennsylvania. While the program has been successful thus far, it is seriously constrained by its limited funding. Echoing other anti-hunger groups within Pennsylvania,³²² PASS funding should be increased to \$3 million in the next budget to increase opportunities for food insecure Pennsylvanians to access fresh, nutritious food, while providing markets that can acquire agricultural surplus. PDA and the organizations involved in implementing PASS should continue to ensure the program focuses on surplus food and food that would otherwise go to waste. The program should be paired with broader investments, such as some of the other funding highlighted in this section, in order to ensure it is as successful as possible at reducing agricultural waste and that food that would go to waste in other sectors of the food system is also able to be rescued.

4) Provide funding for food recovery infrastructure



As discussed previously, the costs and logistical challenges of preparing, processing, and transporting food for donation often make it financially difficult for producers and vendors to donate surplus food.³²³ Most food donors are not willing to spend additional money in order to donate food, and thus many food recovery organizations bear these costs, in order to facilitate food donation and make it more cost-effective for donors. Pennsylvania has already taken some steps to address these issues. Through CFP, businesses that donate food or money can receive a 55 percent tax credit, and 15 percent of these funds can go toward associated costs (e.g. transportation).³²⁴ At the same time, PASS offsets the cost of donating agricultural products to those in need.³²⁵ However, both programs have limited impacts; CFP and PASS both serve only a limited pool of donors,³²⁶ and PASS only applies to agricultural products acquired directly from the producer.³²⁷ Furthermore, neither program covers the high up-front cost of building infrastructure that can better support transportation and processing of donated food. Pennsylvania should provide grant support to

food recovery organizations to enable them to purchase infrastructure needed to recover and process surplus food, such as refrigerated vehicles, kitchen equipment, and storage space, as well as to pay for labor needed to prepare and transport donated food. Providing assistance to food recovery organizations would allow them to sustain and increase the scale of their operations, making it possible for more organizations and businesses to donate surplus food instead of letting it go to waste. Scaling up food recovery operations would contribute to local economies by generating new jobs in logistics and transportation, while also increasing access to wholesome foods and reducing food waste.³²⁸

5) Support the creation of food waste reduction technologies

Technological innovation is an important tool that Pennsylvania should harness as it strives to reduce food waste. Organizations are already developing apps geared towards facilitating food donation. For example, 412 Food Rescue has developed an app, “Food Rescue Hero,” that connects donors in Pittsburgh with volunteers, who will pick up food and deliver it to a recovery organization.³²⁹ They call it the “Uber of food recovery.”³³⁰ Food Rescue Hero has been a great success, and has recruited over 1,000 volunteers since its rollout in November, 2016.³³¹ Currently, the app only services the Pittsburgh area, but 412 Food Rescue would like to expand it state-wide.³³²

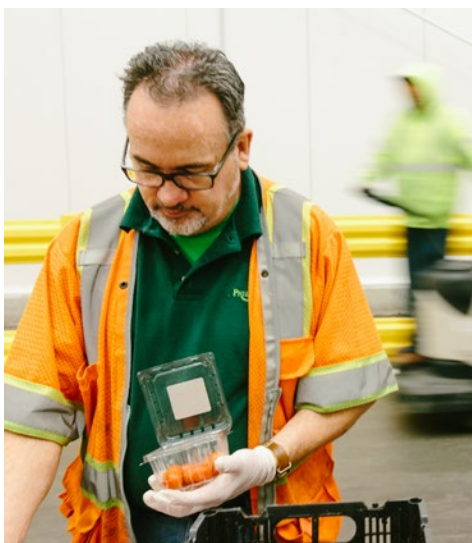
A similar app called Food Connect serves the Philadelphia region.³³³ Through the app, donors simply choose a time and a place for pick-up, and a volunteer will come and collect the donated food for transportation to a recovery organization.³³⁴ Operation Food Rescue—a collaboration between Philabundance, the Greater Philadelphia Coalition Against Hunger, and the Mayor’s Office of Community Empowerment and Opportunity—launched Food Connect in July 2016.³³⁵ In just one month, the app helped facilitate the distribution of over 11,000 pounds of donated food.³³⁶

Pennsylvania can encourage the creation of more apps and technology, or the expansion of existing apps, like Food Connect or Food Rescue Hero, by creating a grant program for technologies that target food waste reduction. State funding could also be predicated on these apps working together to integrate platforms, thereby making food recovery more seamless across the state. Montgomery County, Maryland provides a good example through its support of Community Food Rescue. Community Food Rescue is a network of food recovery organizations and businesses created by Montgomery County government created in 2012.³³⁷ The County provided funding to allow Community Food Rescue to bring Chow Match, an app connecting donors with food recovery organizations, to the area.³³⁸

Alternatively, Pennsylvania could fund a startup competition more broadly, rewarding a range of innovative models that promote food waste reduction. Some states run competitions like this to encourage promising businesses to operate within their borders, although none currently target food waste specifically. New York, for example, runs the 43North Competition, which awards a total of \$5,000,000 to eight startups.³³⁹ Grand prizewinners also receive a year of free incubation space in Buffalo, NY, to encourage them to remain in the region.³⁴⁰ Similarly, through the GreenLight Michigan Business Model Competition, the Michigan Economic Development Corporation offers a total of \$100,000 in cash prizes to winning startups within the state.³⁴¹ Pennsylvania could develop a startup competition of its own, but limit entry to applicants focusing on food waste reduction. By doing so, it could attract innovative solutions to the Commonwealth.

CONCLUSION

A number of policy options exist to reduce food waste in Pennsylvania. This report presents a menu of options, presenting policy recommendations related to tax incentives, liability protections, date labels, food safety, school food waste, organic waste bans, and government support. Stakeholders, advocates, and legislators can use the information in this report to determine key priorities to further reduce the amount of food wasted in Pennsylvania. The recommendations in this report could be implemented individually, or could be combined together into comprehensive state food waste legislation. The next step is for Pennsylvanians to see which possible policies have the most support and decide where to start.



ENDNOTES

- ¹ *Advancing Sustainable Materials Management: 2014 Fact Sheet*, U.S. ENVTL. PROT. AGENCY 6 (Nov. 2016), https://www.epa.gov/sites/production/files/2016-11/documents/2014_smmfactsheet_508.pdf.
- ² Vermont saw a 60 percent increase in food donations between 2015 and 2016 after implementation of its organic waste ban. Massachusetts saw a 25,000 ton increase in food donations in the year after implementation of its organic waste ban. See, *Results are in: Trash is Down, Recycling is UP!*, VERMONT.GOV (Jun. 27, 2016), <http://www.vermont.gov/portal/government/article.php?news=6068>; After One Year, Mass. Commercial Food Waste Disposal Ban Gets Results, CTR. FOR ECOTECH. (Oct. 6, 2015), <http://www.cetonline.org/after-one-year-mass-commercial-food-waste-disposal-ban-gets-results/>; A Success Story: The Massachusetts Commercial Organics Waste Ban, ENVTL. COUNCIL OF THE STATES (Mar. 24, 2016), <https://vimeo.com/160289284>.
- ³ *Food Waste Goes to Capitol Hill: NRDC Testifies Before House Committee Today*, NAT. RES. DEF. COUNCIL (May 25, 2016), <https://www.nrdc.org/experts/dana-gunders/food-waste-goes-capitol-hill-nrdc-testifies-house-committee-today>.
- ⁴ HARVARD LAW SCHOOL FOOD LAW & POLY CLINIC & NAT. RES. DEF. COUNCIL, THE DATING GAME: HOW CONFUSING FOOD DATE LABELS LEAD TO FOOD WASTE IN AMERICA 8 (2013), <http://www.chlpi.org/wp-content/uploads/2013/12/dating-game-report.pdf>.
- ⁵ This figure was obtained by comparing food recovery statistics with overall rates of food insecurity in the U.S. Recovering 15 percent of wasted food could feed more than 25 million food insecure Americans each year, and there are approximately 42 million food insecure Americans. Thus, recovering 15 percent of wasted food could feed half of all food insecure Americans. See DANA GUNDERS, NAT. RES. DEF. COUNCIL, WASTED: HOW AMERICA IS LOSING UP TO 40 PERCENT OF ITS FOOD FROM FARM TO FORK TO LANDFILL 4 (2012), <https://www.nrdc.org/sites/default/files/wasted-food-IP.pdf>; *Map the Meal Gap: Food Insecurity in the United States*, FEEDING AM. (2015), <http://map.feedingamerica.org/>.
- ⁶ Gunders, *supra* note 5, at 1.
- ⁷ ReFed, A Roadmap to Reduce U.S. Food Waste by 20 Percent 10 (2016), https://www.refed.com/downloads/ReFED_Report_2016.pdf.
- ⁸ *Id.*
- ⁹ *Id.*
- ¹⁰ Feeding Am., *supra* note 5.
- ¹¹ ReFed, *supra* note 7, at 13.
- ¹² *Id.*
- ¹³ *Save the Food*, Nat. Res. Def. Council & Ad Council, <https://www.savethefood.com/> (last visited Aug. 9, 2017).
- ¹⁴ *The U.S. Food Waste Challenge*, U.S. Dep't of Agric., <https://www.usda.gov/oce/foodwaste/Challenge/index.htm> (last visited Aug. 14, 2017).
- ¹⁵ See Harvard Law School Food Law & Pol'y Clinic, Keeping Food Out of the Landfill: Policy Ideas for States and Localities (2016), http://www.chlpi.org/wp-content/uploads/2013/12/Food-Waste-Toolkit_Oct-2016_smaller.pdf.
- ¹⁶ *Food Recovery Hierarchy*, U.S. Envtl. Prot. Agency, <https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy> (last visited Aug. 12, 2017).
- ¹⁷ See *Tax credits vs. tax deductions*, U.S. TAX CTR., <https://www.irs.com/articles/tax-credits-vs-tax-deductions> (last visited Aug. 12, 2017).
- ¹⁸ See *id.*
- ¹⁹ I.R.C. § 170(e)(1) (2017).
- ²⁰ *Id.* § 170(e)(3).
- ²¹ See *id.* § 170(e)(3)(A).
- ²² See *Federal Enhanced Tax Deduction for Food Donations, A Legal Guide*, HARVARD LAW SCHOOL FOOD LAW & POLY CLINIC & UNIV. OF ARK. (Apr. 2016), <http://www.chlpi.org/wp-content/uploads/2013/12/Food-Donation-Fed-Tax-Guide-for-Pub-2.pdf>.
- ²³ Levin and Gerlach Introduce Bipartisan Bill to Encourage Food Donations, CONGRESSMAN SANDY LEVINE (Aug. 1, 2013), <http://levin.house.gov/press-release/levin-and-gerlach-introduce-bipartisan-bill-encourage-food-donations>.
- ²⁴ H.R. 2029, 114th Cong. § 113(a) (2016), codified at I.R.C. § 170(e)(3)(C).
- ²⁵ They are Arizona, see ARIZ. REV. STAT. ANN. §§ 42-5074, 43-1025 (West 2016); California, see CAL. REV. & TAX CODE §§ 17053.12, 17053.88 (West 2016); Colorado, see COLO. REV. STAT. ANN. § 39-22-301 (West 2016); Iowa, see IOWA CODE §§ 190B.101-190B.106, 422.11E, 422.33(30) (West 2016); Kentucky, see KY. REV. STAT. ANN. § 141.392 (West 2016); Missouri, see MO. REV. STAT. § 135.647 (West 2016); Oregon, see OR. REV. STAT. §§ 315.154, 315.156 (West 2016); South Carolina, see S.C. CODE ANN. § 12-6-3750 (West 2016); Virginia, see VA. CODE ANN. § 58.1-439.12:12 (West 2016); and West Virginia, see W. VA. CODE § 11-13DD-1:7 (2017).
- ²⁶ See 72 PA. STATS. AND CONS. STATS. §§ 8901-A-8907A (West 2016).
- ²⁷ The law defines “[b]usiness firm” to mean “[a]ny business entity authorized to do business in [Pennsylvania] and subject to [its personal income tax, corporate net income tax, capitol stock-franchise tax, bank and trust company shares tax, title insurance company shares tax, insurance premium tax, or mutual thrift institutions tax].” See 72 PA. STATS. § 8902-A (West 2016).
- ²⁸ Eligible organizations include “[n]onprofit regional food banks, . . . and nonprofit emergency food providers, which operate food pantries, soup kitchens, food banks, or other programs to relieve hunger, food insecurity, and food shortages among needy individuals and families, homeless people, and victims of domestic violence[.]” PA. DEP'T OF CMTY. AND ECON. DEV., NEIGHBORHOOD ASSISTANCE PROGRAM GUIDELINES 3 (2017), <http://dced.pa.gov/download/neighborhood-assistance-program-nap-guidelines-2017/?wpdmdl=64056>.
- ²⁹ *Id.* at 23.
- ³⁰ *Id.* at 23.
- ³¹ *Id.* at 23.
- ³² *Id.* at 23.
- ³³ *Id.*, at Exhibit H.
- ³⁴ *Id.* at 7.
- ³⁵ *Id.* at 7, 10.
- ³⁶ *Id.* at 6-7.
- ³⁷ *Id.* at 24.
- ³⁸ *Id.* at 10.
- ³⁹ *Id.* at 11.
- ⁴⁰ 72 PA. STATS. AND CONS. STATS. § 8905-A (West 2016).

- ⁴¹ *Id.*; GOVERNOR TOM WOLF, 2017-2018 GOVERNOR'S EXECUTIVE BUDGET D5-D6 (2017), <http://www.budget.pa.gov/PublicationsAndReports/CommonwealthBudget/Documents/2017-18%20Proposed%20Budget/2017-18%20Budget%20Document%20-%20Web.pdf> (last visited Aug. 20, 2017).
- ⁴² PA. DEP'T OF CMTY. AND ECON. DEV., *supra* note 28, at 1.
- ⁴³ PA. DEP'T OF CMTY. AND ECON. DEV., 2016 NEIGHBORHOOD ASSISTANCE PROJECT AWARDS (2016), <http://dced.pa.gov/download/nap-approved-2016-pdf/?wpdmdl=69471>.
- ⁴⁴ FEEDING PENN., NEIGHBORHOOD ASSISTANCE PROGRAM – CHARITABLE FOOD PROGRAM 1 (2017) (on file with author). It is unclear whether this refers to applications from charitable organizations wishing to qualify for the credit, or applications from individual donors.
- ⁴⁵ Telephone interview with a representative from a Pennsylvania food recovery organization (Mar. 21, 2017).
- ⁴⁶ *Id.*
- ⁴⁷ See U.S. TAX CTR., *supra* note 17.
- ⁴⁸ *Id.* However, most tax credits are nonrefundable, which means that they cannot reduce a business' tax burden below \$0. Therefore, their effect may still be limited for taxpayers in the lowest tax brackets. See *Briefing Book*, TAX POLY CENTER, <http://www.taxpolicycenter.org/briefing-book/whats-difference-between-tax-deductions-and-tax-credits> (last visited Aug. 14, 2017).
- ⁴⁹ Telephone interview with a representative from a Pennsylvania food recovery organization (Mar. 24, 2017).
- ⁵⁰ VA. CODE ANN. § 58.1-439.12:12 (West 2016). The credit is capped at \$5,000 per annum.
- ⁵¹ U.S. DEP'T OF AG., FARMS AND LAND IN FARMS: 2016 SUMMARY 9 (2017), <https://usda.mannlib.cornell.edu/usda/current/FarmLandIn/FarmLandIn-02-17-2017.pdf>.
- ⁵² Telephone interview with a representative from a Pennsylvania food recovery organization (Mar. 24, 2017).
- ⁵³ COLO. REV. STAT. § 39-22-536 (West 2016). The credit is capped at \$5,000 per annum.
- ⁵⁴ See PA. DEP'T OF CMTY. AND ECON. DEV., *supra* note 28, at 23.
- ⁵⁵ Cal. Rev. & Tax. Code § 17053.12 (West 2016).
- ⁵⁶ 42 U.S.C. § 1791 (2012).
- ⁵⁷ A 2016 survey conducted by the Food Waste Reduction Alliance, a joint industry task force comprised of leading companies and trade associations in the food, beverage, food service, and food retail industries, found that 25 percent of retailers and wholesalers and 50 percent of food manufacturers cite liability concerns as one of the main barriers to food donation. FOOD WASTE REDUCTION ALLIANCE, ANALYSIS OF U.S. FOOD WASTE AMONG FOOD MANUFACTURERS, RETAILERS, & RESTAURANTS 17, 24 (2016), http://www.foodwastealliance.org/wp-content/uploads/2013/05/FWRA-Food-Waste-Survey-2016-Report_Final.pdf.
- ⁵⁸ *Id.*
- ⁵⁹ 42 U.S.C. § 1791(c)(1) (2012).
- ⁶⁰ *Id.* §§ 1791(c)(1), (b)(9).
- ⁶¹ *Id.* §§ 1791(c)(1)-(2).
- ⁶² *Id.* §§ 1791(b)(1)-(2).
- ⁶³ *Id.* §§ 1791(c)(1)-(2).
- ⁶⁴ *Id.* § 1791(b)(3).
- ⁶⁵ *Id.* § 1791(c)(3).
- ⁶⁶ 10 PA. STAT. §§ 351-358 (West 2016).
- ⁶⁷ *Id.* § 354(a), 355(a).
- ⁶⁸ *Id.* § 354-355. These terms are not defined.
- ⁶⁹ *Id.* § 355.
- ⁷⁰ *Id.* § 357.
- ⁷¹ Compare *Id.* § 354(a) with *id.* § 355(b).
- ⁷² *Id.* § 354(b).
- ⁷³ *Id.* § 355.1.
- ⁷⁴ About us, HUNTERS SHARING THE HARVEST, <http://www.sharedeer.org/about-us/> (last visited Aug. 15, 2017).
- ⁷⁵ *Id.*
- ⁷⁶ 10 PA. STAT. AND CONS. STAT. § 354 (West 2016).
- ⁷⁷ *Id.* § 355.
- ⁷⁸ *Id.* § 356.
- ⁷⁹ Telephone interviews with representatives from several Pennsylvania food recovery organizations (Mar. 8, 2017; Mar. 21, 2017; Mar. 24, 2017).
- ⁸⁰ Telephone interview with a representative from a Pennsylvania food recovery organization (Mar. 21, 2017).
- ⁸¹ They are Arizona, see ARIZ. REV. STAT. ANN. § 36-916; Louisiana, see LA. REV. STAT. ANN. § 9:2799; Massachusetts, see MASS. GEN. LAWS ANN. Ch. 94 § 328 and 105 MASS. CODE REGS. 520.119; Minnesota, see MINN. STAT. ANN. § 604A.10; New Hampshire, see N.H. REV. STAT. § 508:15; New Mexico, see N.M. STAT. ANN. §§ 41-10-2, 41-10-3; and Vermont, see 12 VT. STAT. ANN. § 5762.
- ⁸² S.B. 725, 85th Leg., Reg. Sess. (Tex. 2017), passed Jun. 9, 2017.
- ⁸³ *Id.* § 1(b).
- ⁸⁴ See 42 U.S.C. § 1791(c)(1) (2012); see also 10 PA. STAT. AND CONS. STAT. § 354 (West 2016).
- ⁸⁵ They are Alaska, ALASKA STAT. § 17.20.346 (2017); Arizona, ARIZ. REV. STAT. ANN. § 36-916 (2017); Arkansas, ARK. CODE ANN. § 20-57-103 (2017); Connecticut, CONN. GEN. STAT. ANN. § 52-557L (2017); Georgia, GA. CODE ANN. § 51-1-31 (2017); Iowa, IOWA CODE ANN. § 672.1 (2017); Massachusetts, MASS. GEN. LAWS ch. 94, § 328 (West 2017); Michigan, MICH. COMP. LAWS ANN. § 691.1572 (2017); Montana, MONT. CODE ANN. § 27-1-716 (2017); New Hampshire, N.H. REV. STAT. ANN. § 508:15 (2016); New Jersey, N.J. STAT. ANN. § 24:4A-3 (2017); North Carolina, N.C. GEN. STAT. ANN. § 99B-10 (2017); Oklahoma, OKLA. STAT. ANN. tit. 76, § 5.6 (2017); and Oregon, OR. REV. STAT. § 30.890 (2017). In addition, three states extend liability protections to donors if the food recovery organization to which they donate charges end recipients for donated food, but do not extend liability protections to the organizations themselves. They are Nebraska, NEB. REV. STAT. § 25-21, 189 (2017); Rhode Island, R.I. GEN. LAWS ANN. § 21-34-1-2 (2017); and Texas, TEX. CIV. PRAC. & REM. CODE ANN. § 76.001-004 (2017).
- ⁸⁶ MASS. GEN. LAWS ch. 94 § 328 (West 2017).
- ⁸⁷ *Our Story*, DAILY TABLE, <http://dailymtable.org/about-us/our-story/> (last visited Aug. 15, 2017).
- ⁸⁸ *Id.*
- ⁸⁹ *Id.*
- ⁹⁰ Telephone interview with a representative from a Pennsylvania food recovery organization (Mar. 8, 2017).
- ⁹¹ *Rescue. Transform. Share.*, LA SOUPE, <http://lasoupecincinnati.com/home/> (last visited Aug. 16, 2017).

- ⁹² *Id.*
- ⁹³ *Id.*
- ⁹⁴ *About, MISFIT JUICERY*, <http://misfitjuicery.co/about/> (last visited Aug. 16, 2017).
- ⁹⁵ 10 PA. STAT. AND CONS. STAT. § 354(b) (West 2016).
- ⁹⁶ Telephone interview with representatives from a Pennsylvania food recovery organization (Mar. 8, 2017).
- ⁹⁷ MASS GEN. LAWS ch. 94, § 328 (West 2017).
- ⁹⁸ See Emily Broad Leib, et al., HARVARD LAW SCHOOL FOOD LAW AND POL'Y CLINIC, NAT'L CONSUMERS LEAGUE, & JOHNS HOPKINS CTR. FOR A LIVABLE FUTURE, CONSUMER PERCEPTIONS OF DATE LABELS: NATIONAL SURVEY 1 (2016), http://www.chlpi.org/wp-content/uploads/2013/12/Consumer-Perceptions-on-Date-Labels_May-2016.pdf.
- ⁹⁹ See HARVARD LAW SCHOOL FOOD LAW & POL'Y CLINIC & NAT. RES. DEF. COUNCIL, *supra* note 4, at 19.
- ¹⁰⁰ *Id.* at 8.
- ¹⁰¹ See Broad Leib, et al., *supra* note 98, at 1–2.
- ¹⁰² See Food Product Dating, U.S. DEP'T OF AGRIC. <http://www.fsis.usda.gov/wps/portal/food-safety-education/get-answers/food-safety-fact-sheets/food-labeling/food-product-dating/food-product-dating> (last visited Aug. 16, 2017).
- ¹⁰³ 21 U.S.C. §§ 331(b), 343, 463(a), 607(c), 1043 (2012).
- ¹⁰⁴ See U.S. DEP'T OF AG., *supra* note 102.
- ¹⁰⁵ See HARVARD LAW SCHOOL FOOD LAW & POL'Y CLINIC & NAT. RES. DEF. COUNCIL, *supra* note 4, at 12–15.
- ¹⁰⁶ W. VA. CODE R. § 61-7A-6 (2016).
- ¹⁰⁷ N.J. STAT. ANN. § 24:10-57.23 (West 2016).
- ¹⁰⁸ N.J. ADMIN. CODE § 8:24-3.2 (2016).
- ¹⁰⁹ See HARVARD LAW SCHOOL FOOD LAW & POL'Y CLINIC & NAT. RES. DEF. COUNCIL, *supra* note 4, at 15.
- ¹¹⁰ *Id.* at 23–24.
- ¹¹¹ Food Date Labeling Act of 2016, H.R. 5298, 114th Cong. (2016).
- ¹¹² Food Date Labeling Act of 2016, S. 2947, 114th Cong. (2016).
- ¹¹³ Food Recovery Act of 2017, H.R. 3444, 115th Cong. (2017).
- ¹¹⁴ See PA. CODE §§ 59A.15, 46.246 (2017).
- ¹¹⁵ *Id.* § 59A.15. Raw milk similarly must be marked with a “sell-by” date of no more than 17 days after production, and may not be sold after that date. See Pa. Code § 59A.411(3) (2017).
- ¹¹⁶ *Id.*
- ¹¹⁷ *Id.*
- ¹¹⁸ *Id.*
- ¹¹⁹ Telephone interviews with representatives from several Pennsylvania food recovery organizations (Mar. 8, 2017; Mar. 21, 2017). One organization said that it accepts milk that is past its “sell-by” date, but not milk that is past its expiration date. Pennsylvania does not require milk to bear an expiration date, but it appears that some producers have added expiration dates at their discretion.
- ¹²⁰ PA. CODE § 46.246 (2017).
- ¹²¹ HEALTH DEP'T, ALLEGHENY COUNTY, PA., RULES AND REGULATIONS § 329.3 (2015).
- ¹²² Examples of food often packaged this way are pre-packaged meats, fruit, produce, and packaged cheese. *Food Donations and Labeling Requirements*, TRELIS LEGAL, <http://www.trellisph.com/news/2016/10/3/food-donations-and-labeling-requirements> (last visited Aug. 15, 2017).
- ¹²³ HEALTH DEP'T, ALLEGHENY COUNTY, PA., RULES AND REGULATIONS § 329.3 (2015).
- ¹²⁴ *Id.*
- ¹²⁵ *Expired?: Food Waste in America*, HARVARD LAW AND POL'Y CLINIC & RACING HORSE PROD. (2016), <http://notreallyexpired.com/watch-the-film/>.
- ¹²⁶ *Grocery Industry Launches New Initiative to Reduce Consumer Confusion on Product Date Labels*, GROCERY MANUFACTURERS ASSN. (Feb. 15, 2017), <http://www.gmaonline.org/news-events/newsroom/grocery-industry-launches-new-initiative-to-reduce-consumer-confusion-on-pr/>.
- ¹²⁷ PA. CODE § 59A.15 (2017).
- ¹²⁸ *Id.* § 46.246 (2017).
- ¹²⁹ Pasteurization removes harmful pathogens from milk. Soured milk may taste bad, but is unlikely to cause illness. See Allison Aubrey, *Don't Toss That Sour Milk!*, THE SALT (Sept. 23, 2015), <http://www.npr.org/sections/thesalt/2015/09/23/441460163/don-t-toss-that-sour-milk-10-tips-cut-food-waste-in-your-kitchen>; see also Hannah Katsman, *Why Spoiled Milk is Not The Same as Soured Milk*, COOKING MANAGER (Jul. 11, 2010), <http://www.cookingmanager.com/spoiled-milk-sour-soured-milk/>.
- ¹³⁰ Although raw shellfish is highly perishable, it is usually cooked before being eaten. This kills any bacteria that might be present, removing the safety risk of eating old shellfish. See OREGON HEALTH AUTHORITY, SAFE EATING OF SHELLFISH, <https://public.health.oregon.gov/HealthyEnvironments/Recreation/Documents/Shellfish-safety.pdf>. That being said, it can spoil, and should not be eaten if it smells like ammonia. See Fresh and Frozen Seafood, FOOD AND DRUG ADMIN., <https://www.fda.gov/Food/ResourcesForYou/Consumers/ucm077331.htm> (last visited May 4, 2017).
- ¹³¹ The U.K. has a dual date labeling system that distinguishes between quality- and safety-based dates. To determine which foods require which label, the Department for Environment Food and Rural Affairs developed a decision tree. See U.K. DEP'T FOR ENV'T FOOD & RURAL AFFAIRS, GUIDANCE ON THE APPLICATION OF DATE LABELS TO FOOD 14 (Sept. 2011), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69316/pb132629-food-date-labelling-110915.pdf. See also ReFED's draft decision-making tree; ReFED, ReFED DATE LABELING STANDARDIZATION TOOL 6-9, <http://www.refed.com/downloads/ReFED-Standardization-Package.pdf> (last visited Aug. 13, 2017).
- ¹³² See, e.g., The Facts About Ultra-Pasteurized Milk, OHIO FARM BUREAU, <https://ofbf.org/2009/03/06/the-facts-about-ultra-pasteurized-milk/> (last visited Apr. 18, 2017); see also HARVARD LAW AND POL'Y CLINIC & RACING HORSE PROD., *supra* note 125.
- ¹³³ MONT. ADMIN. R. 32.8.202 (2017).
- ¹³⁴ See HARVARD LAW AND POL'Y CLINIC & RACING HORSE PROD., *supra* note 125; see also *Best Enjoyed By*, 99% INVISIBLE (Jan. 12, 2016), <http://99percentinvisible.org/episode/best-enjoyed-by/>.
- ¹³⁵ *Food Waste Reduction and Recovery*, CONN. DEP'T OF ENERGY AND ENVTL. PROT., http://www.ct.gov/deep/lib/deep/waste_management_and_disposal/Solid_Waste_Management_Plan/Final_Harvard_Food_Fact_Sheets/FINAL_Date_Labeling_Fact_Sheet_for_Connecticut_Food_Donation.pdf (last visited Aug. 16, 2017).
- ¹³⁶ FLA. DEP'T OF AG. AND CONSUMER SERVS., EXPIRATION DATES, <http://www.freshfromflorida.com/content/download/65464/1567491/ExpirationDates.pdf> (last visited Aug. 16, 2017).
- ¹³⁷ *Retail Food Protection*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/default.htm> (last visited Aug. 16, 2017).
- ¹³⁸ *FDA Food Code*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/> (last visited Aug. 16, 2017).
- ¹³⁹ *Id.*

- ¹⁴⁰ *Conference for Food Protection*, CONF. FOR FOOD PROTECTION, <http://www.foodprotect.org/> (last visited Aug. 16, 2017).
- ¹⁴¹ U.S. FOOD & DRUG ADMIN., *supra* note 138.
- ¹⁴² *Food Code Adoption by State*, ASSOC. OF FOOD AND DRUG OFFICIALS, <http://www.afdo.org/page-1417772> (last visited Aug. 16, 2017).
- ¹⁴³ CONF. FOR FOOD PROT., COMPREHENSIVE RESOURCE FOR FOOD RECOVERY PROGRAMS 4 (Apr. 2016), http://www.foodprotect.org/issues/packets/2016Packet/attachments/I_011_content_b.pdf.
- ¹⁴⁴ 10 P.S. § 354 (West 2016); 42 Pa.C.S.A. § 8338 (West 2016).
- ¹⁴⁵ *Food Safety Inspection Results Database: Frequently Asked Questions*, PA. DEP'T OF AGRIC., <http://www.agriculture.pa.gov/Protect/FoodSafety/Food%20Safety%20Inspection%20Reports/Pages/default.aspx> (last visited Aug. 16, 2017); see also, ASS'N OF STATE AND TERRITORIAL HEALTH OFFICIALS & NORC AT THE UNIV. OF CHI., STATE PUBLIC AGENCY CLASSIFICATION: UNDERSTANDING THE RELATIONSHIP BETWEEN STATE AND LOCAL PUBLIC HEALTH 63 (2012), <http://www.astho.org/Research/Major-Publications/ASTHO-NORC-Governance-Classification-Report/>.
- ¹⁴⁶ *Too Good to Waste!*, CTY. OF SAN DIEGO HEALTH AND HUMAN SERV. AGENCY, http://www.sandiegocounty.gov/content/dam/sdc/dpw/SOLID_WASTE_PLANNING_and_RECYCLING/ManagingOrganics/Food%20Donation%20Guide%208%202015.pdf (last visited Aug. 16, 2017).
- ¹⁴⁷ *Donating Food Safely—Guidance for Restaurants*, WASH. CTY. SOLID WASTE & RECYCLING PROGRAM & WASH. CTY. ENVTL. HEALTH, (May 2015) (on file with author).
- ¹⁴⁸ MINN. DEP'T OF HEALTH, FOOD SAFETY GUIDELINES FOR ONSITE FEEDING LOCATIONS, FOOD SHELVES AND FOOD BANKS <http://www.health.state.mn.us/divs/eh/food/fs/foodbanksafety.pdf> (last visited Aug. 16, 2017).
- ¹⁴⁹ *Food Donation Policy*, WYO. DEP'T OF AGRIC. CONSUMER HEALTH SERV. 1 (2011), <http://wyagric.state.wy.us/images/stories/pdf/chs/Basicreq/fooddonation-2011.pdf> (last visited Aug. 16, 2017).
- ¹⁵⁰ See *Food Waste Estimation Guide*, RECYCLINGWORKS MA, <https://recyclingworksma.com/wp-content/uploads/2014/01/2015-05-Printable-Threshold-Estimation-Guide-Elementary-and-Secondary-Schools.pdf> (last visited Aug. 13, 2017); see also *Digging Deep Through School Trash*, MINNESOTA POLLUTION CONTROL AGENCY (Sept. 2010), <https://www.pca.state.mn.us/sites/default/files/p-p2s6-14.pdf>.
- ¹⁵¹ Juliana F.W. Cohen, et al., *School Lunch Waste among Middle School Students: Implications for Nutrients Consumed and Food Waste Costs*, AM. J. PREV. MED. 44.2: 5 (2013), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3788640/> (last visited Aug. 16, 2017).
- ¹⁵² *Id.*, at 6.
- ¹⁵³ *Why Reducing Food Waste in School Meal Programs Matters*, EXTENSION (Aug. 10, 2017), <http://articles.extension.org/pages/73963/why-reducing-food-waste-in-school-meal-programs-matters>.
- ¹⁵⁴ See Juliana F.W. Cohen, *supra* note 151, at 6.
- ¹⁵⁵ See ReFED, *supra* note 6, at 13.
- ¹⁵⁶ Telephone interview with representatives from a school food recovery organization (Apr. 5, 2016).
- ¹⁵⁷ Program guidelines state that all grade groups must be offered one cup of fluid milk daily as a beverage, but students may decline milk. See FOOD AND NUTRITION SERV. U.S. DEP'T OF AGRIC., *OFFER VERSUS SERVE: GUIDANCE FOR THE NATIONAL SCHOOL LUNCH PROGRAM AND THE SCHOOL BREAKFAST PROGRAM* 17 (2014), <https://www.fns.usda.gov/sites/default/files/cn/SP41-2015av2.pdf>.
- ¹⁵⁸ Telephone interview with Pennsylvania high school teacher (Mar. 13, 2017).
- ¹⁵⁹ Telephone interview with a representative from a school food recovery organization (Apr. 5, 2016); interview with representatives from a Massachusetts elementary school's Zero Waste Team (Apr. 24, 2016).
- ¹⁶⁰ *National School Lunch Program*, U.S. DEP'T OF AGRIC. FOOD & NUTRITION SERV., <http://www.fns.usda.gov/nsnlp/national-school-lunch-program-nsnlp> (last visited Aug. 17, 2017); *School Breakfast Program*, U.S. DEP'T OF AGRIC. FOOD & NUTRITION SERV., <https://www.fns.usda.gov/sbp/school-breakfast-program-sbp> (last visited Aug. 17, 2017).
- ¹⁶¹ *Id.*
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³²⁴ PA. DEP’T OF CMTY. AND ECON. DEV., *supra* note 28, at 3, 23.

³²⁵ 62 PA. STAT. AND CONS. STAT. § 4050.4 (West 2016).

³²⁶ CFP’s structure and application process (which requires donors to commit one year in advance), makes it difficult for many donors to utilize. See PA. DEP’T OF CMTY. AND ECON. DEV., *supra* note 28, at 6–10. PASS is only funded at \$1 million. See PA. OFFICE OF THE BUDGET, *supra* note 283. ³²⁷ 62 PA. STAT. AND CONS. STAT. § 4050.4 (West 2016).

³²⁷ 62 PA. STAT. AND CONS. STAT. § 4050.4 (West 2016).

³²⁸ Of the 27 food waste solutions analyzed by ReFED, Donation Storage and Handling was found to be the second largest job creator, generating over 2,000 new jobs in food businesses and within food recovery organizations. See ReFED *supra* note 7 at 25.

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- ³²⁹ Karla Holsopple, *This Pittsburgh Group is Pioneering the 'Uber of Food Recovery'*, ALLEGHENY FRONT (Jan. 6, 2017), <http://www.allegHENYfront.org/this-pittsburgh-group-is-pioneering-the-uber-of-food-recovery/>.
- ³³⁰ *Id.*
- ³³¹ Telephone interview with Leah Lizarondo, CEO, 412 Food Rescue (Mar. 21, 2017).
- ³³² *Id.*
- ³³³ *Home*, FOOD CONNECT GROUP, <http://www.foodconnectgroup.com/> (last visited Aug. 18, 2017).
- ³³⁴ *FAQs*, FOOD CONNECT GROUP, <http://www.foodconnectgroup.com/faqs.html> (last visited Aug. 18, 2017).
- ³³⁵ *Philadelphia's Leading Hunger-Relief Organizations Team Up to Release Food Rescue App for DNC*, PHILABUNDANCE (Jul. 15, 2016), <https://www.philabundance.org/philadelphias-leading-hunger-relief-organizations-team-up-to-release-food-rescue-app-for-dnc/>.
- ³³⁶ This donation occurred during the week that Philadelphia hosted the Democratic National Convention in late July, 2016. See Julie Zeglen, *Megha Kulshreshtha's Food Connect App is Killin' the Hunger Alleviation Game*, GENEROCITY (Oct. 6, 2016), <http://generocity.org/philly/2016/10/06/megha-kulshreshthas-food-connect-app-killin-hunger-alleviation-game/>.
- ³³⁷ See *History*, COMMUNITY FOOD RESCUE, <https://communityfoodrescue.org/history/> (last visited Aug. 18, 2017).
- ³³⁸ See *CFR's Matching Tool Goes Mobile: Get the Free App*, COMMUNITY FOOD RESCUE BLOG (Aug. 18, 2016), <https://communityfoodrescue.org/2016/03/30/cfrs-matching-tool-goes-mobile-get-the-free-app/>. The app was designed and first used in San Francisco, but Community Food Rescue has brought it to Montgomery County. See *About*, COMMUNITY FOOD RESCUE, <https://communityfoodrescue.org/intro/about-2/> (last visited Aug. 18, 2017).
- ³³⁹ Governor Andrew Cuomo, *Governor Cuomo Launches Year Three of 43North the \$5 Million Startup Competition* (March 4, 2016), <https://www.governor.ny.gov/news/governor-cuomo-launches-year-three-43north-5-million-startup-competition>.
- ³⁴⁰ *Id.*
- ³⁴¹ *About us*, GREENLIGHT MICHIGAN, <http://greenlightmichigan.com/> (last visited Aug. 18, 2017).

