

Vermont's Legislative Interventions on Food Waste Disposal and Single-Use Plastic Bags: Implementation, Effectiveness, and Policy Implications

Final Report for the James M. Jeffords Fund

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Project Overview

To lessen the detrimental effects of Vermont's food system on the environment and relieve pressure on the state's only landfill, effective July 1, 2020, the Government of Vermont banned all food waste from landfill (Universal Recycling Law, Act 148 of 2012), prohibited stores and food establishments from providing single-use plastic carryout bags, straws, stirrers, and expanded polystyrene containers to customers, and required charging a small fee for paper bags (Single-Use Products Law, Act 69 of 2019). The objectives of this project were to study the implementation of these laws, assess their effectiveness at changing behavior, and derive policy lessons.

Research Methods

To achieve the project objectives, we gathered survey data from two samples of Vermonters: a general population sample and a sample of consumer-facing food business professionals.

General Population Survey

To understand the perspectives and behaviors of Vermont residents, we sponsored a set of survey questions in the 2022 Vermonter Poll, an annual statewide public opinion survey conducted by UVM's Center for Rural Studies since 1990. The data were collected from a random sample of Vermont residents drawn from commercially available email lists in March and April 2022. Individuals identifying as current Vermont residents aged 18 years or older were eligible to participate. A total of 783 Vermonters completed the survey. Our questions focused on opinions about the two laws, food waste disposal behaviors before and since the laws were implemented, and plastic and paper bag usage before and since the laws were implemented.

Food Business Professional Survey

To understand the opinions of Vermont's food retail and food service professionals and assess the impacts of the policies on business operations, we disseminated an online survey to professionals aged 18 and older. Our questions asked about perspectives on the laws; changes made, if any, to adhere to the laws; future intended changes; costs of adhering to the laws; and general questions about the respondent and their business or employer. The Waste Management and Prevention Division of the Vermont Agency of Natural Resources assisted with development of the survey instrument.

Respondents were recruited in September and October 2021 and April and May 2022 via the email lists and social media of non-profit, business, and state agencies; posts to public list serves; posters in public places; and newspaper advertisements. We received a total of 95 valid responses from food business professionals in Vermont, including 36 respondents representing the food retail sector, 42 representing the food service industry, and 17 who work in both. Just over half of the respondents (53%) reported being business owners or managers.

Key Deliverables

As a first stage of dissemination, we are prioritizing sharing the findings with key stakeholders across the state. We are actively working with UVM's College of Agriculture and Life Sciences and the Gund Institute for the Environment to publicize our findings to policymakers, the food industry, and the general public. We have produced two policy reports (see attached) with data visualizations highlighting the impacts of the bans on the general population, food retailers, and food service providers. These reports are being shared directly with the organizations, businesses, and agencies that supported dissemination, and will be posted open-access to UVM ScholarWorks.

The second stage of dissemination will focus on academic outputs. We recently submitted a manuscript focused on the impacts of the single-use products law on consumer use of plastic and paper bags for peer review. We are planning additional manuscripts focused on the data relevant to the food waste ban and the impacts of both bans on food businesses.

Acknowledgements

We wish to thank the James M. Jeffords Fund for the funding to carry out this research. The funds were used to sponsor questions on the 2022 Vermonter Poll, pay graduate research assistants, advertise the Food Business Professional survey via Front Porch Forum and Seven Days, and provide research incentives to study participants. In addition to support from the Jeffords Fund, UVM's Food Systems Program contributed to paying graduate research assistants. We are grateful for the contributions of Claire Ryan and Margaret Torness (UVM Food Systems Program), who helped with data management, cleaning, analysis, and visualization, and Bridget Clark (UVM Nutrition and Food Sciences Program), who helped program the Food Business Professional survey.

Impact of Vermont's Food Waste Ban on Residents and Food Businesses

Introduction

In the United States, an estimated 30–40% of food produced each year is wasted, with most of this waste coming from households, food retailers, and food service businesses.¹ In addition to representing wasted human and natural resources across the food system, food waste is among the largest sources of waste in municipal landfills in the United States and Vermont, where it generates methane, a powerful greenhouse gas.^{2,3} In fact, the decomposition of food and other organic materials in landfills is the third largest source of methane emissions in the United States (17%), after petroleum production and livestock production.⁴

To reduce the burden on Vermont's only municipal landfill, the Vermont Legislature unanimously passed Act 148, a universal recycling and composting law, in 2012.⁵ Among other features, the law included a phased-in food waste ban that went into full effect on July 1, 2020. This ban requires everyone in Vermont – from residents to businesses and institutions – to keep their food waste out of the trash.

To study the impact of the food waste ban, we conducted two statewide online surveys in 2021 and 2022: a general population survey (i.e., resident survey) and a food business survey. The resident survey was embedded within the 2022 Vermonter Poll – an annual statewide public opinion survey – and was completed by 783 Vermont residents. The sample represents the adult population of Vermont with respect to gender distribution and household size, but over-represents older adults and those with greater incomes and education. The food business survey was distributed through the email lists of non-profit, business, and state agencies; public posts on Front Porch Forum; posters in public places; and newspaper

advertisements. The food business survey was completed by 95 food service and food retail professionals. This policy report summarizes the findings of both surveys relevant to the food waste ban.

Key Findings

1. Following implementation of Vermont's food waste ban, residents reported increasing the amount of food waste that they separate from their trash by 48% (from 48% to 71%). The leading disposal method for food waste is composting (46% of all food waste disposal).
2. However, over a year after full implementation of the ban, about one quarter of respondents to the resident survey (26%) report feeling confused about its requirements. Of those who engaged in composting, one out of five (20%) find it to be hard or very hard.
3. Support for and knowledge of the food waste ban is high among Vermont's food retail and food service professionals, and few continue to dump food waste in the trash.
4. However, over one-third of food retailers (37%), about half of food service operators (53%) and two-fifths of those who run both types of businesses (40%) felt that compliance had been difficult.
5. The impacts of the ban differ for different types of food businesses, with food service businesses reporting more negative impacts on operating costs and revenue than food retailers.

Survey of Vermont Residents

Separation of Food Waste from the Trash Before and After the Ban

Vermont residents reported increasing the proportion of food that they separate from their trash from 48% before the ban to 71% after the ban (Figure 1).

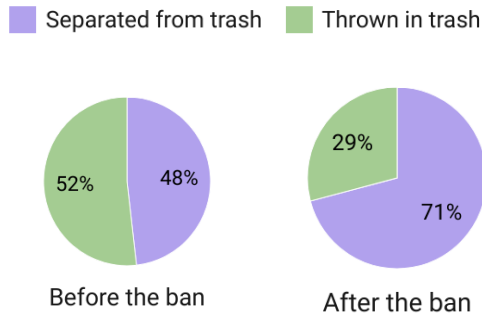


Figure 1. Proportion of food waste separated from residential trash before and after implementation of the food waste ban (%)

The survey asked respondents to estimate what percentage of their food waste was disposed of using each of a range of methods since July 2020 (Figure 2). The three leading disposal methods were composting on one's own property or giving to a friend or neighbor to compost (46%), dumping food waste in the trash (12%), and dropping waste off at community food waste facilities (10%). Respondents additionally described "other" methods including tossing food waste into the woods and feeding it to wildlife.

Approximately 85% of Vermont's residents reported composting. Among these individuals, one in five (20%) believed that composting is hard or very hard (Figure 3). Survey respondents were asked what information or assistance would make it easier for their household to comply with the food waste ban (Figure 4). The most requested forms of assistance were information on how to compost food waste correctly (25%), information on how to compost during the winter (25%), and information on how to get rid of fruit flies (20%).

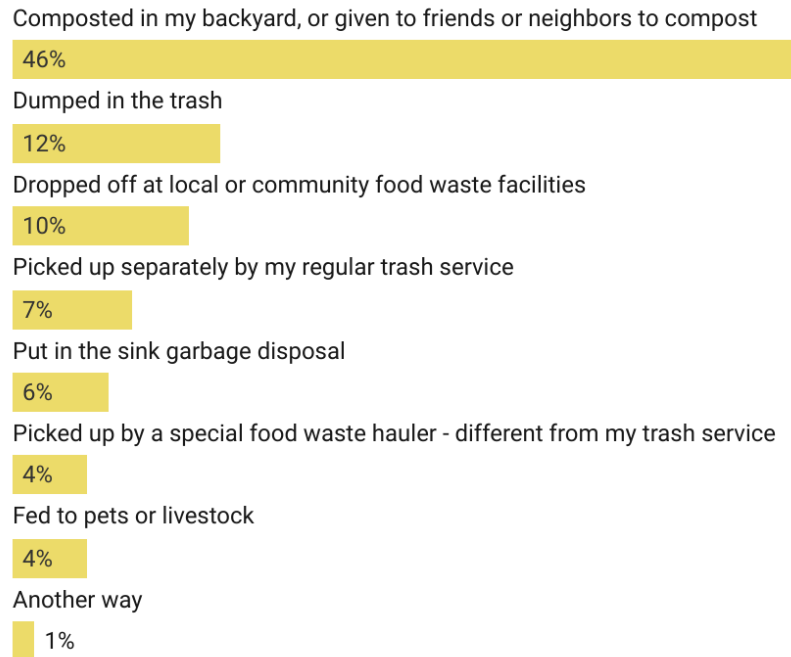


Figure 2. Vermont resident strategies for disposing of food waste since implementation of the food waste ban (%)

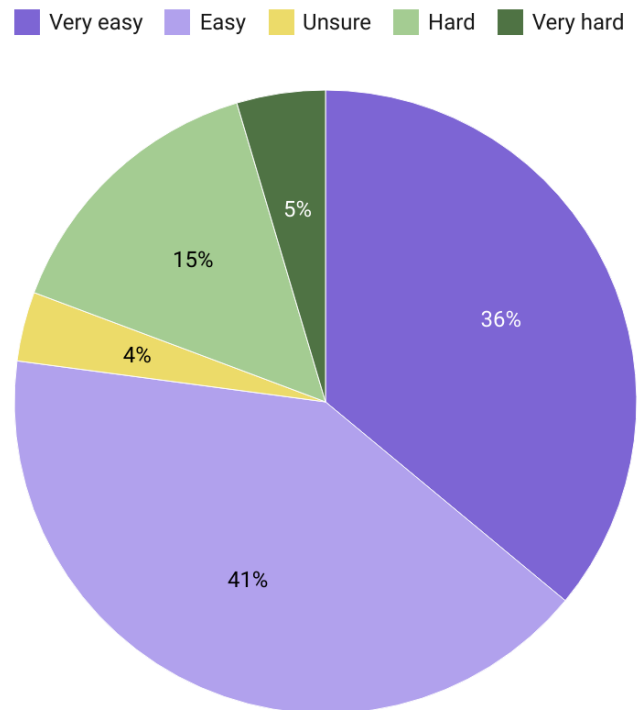


Figure 3. Resident survey respondents' overall experiences composting food waste since implementation of the ban (%)



Figure 4. Information and assistance that would make it easier for residents to comply with the ban (%)

Opinions about the Food Waste Ban

About one quarter of survey respondents (26%) were confused about the requirements of the food waste ban (Figure 5). However, more than half (61%) reported feeling morally obligated to take steps to keep their food waste out of landfills and slightly less than half (44%) believed that the benefits of the food waste ban are greater than the economic costs.

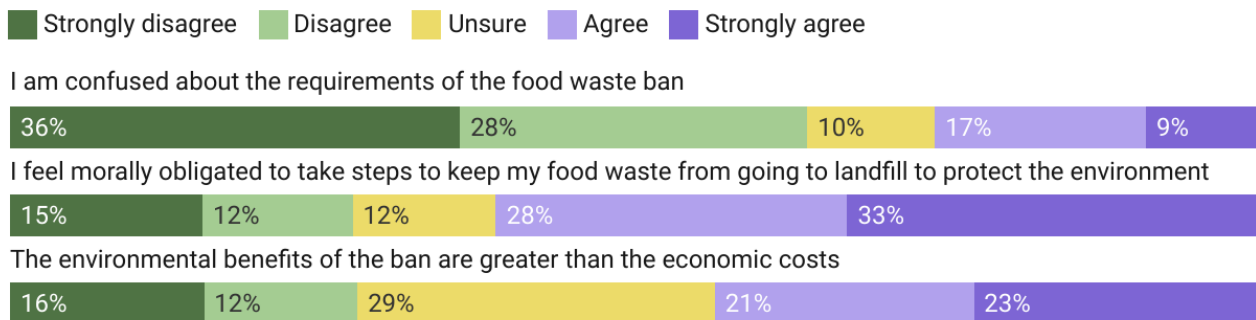


Figure 5. Resident survey respondents' opinions about the food waste ban (%)

Survey of Food Retail and Service Professionals

The food business survey was completed by professionals representing a variety of food establishments, including restaurants, fast food, catering, institutions, food trucks, grocery stores, cooperatives, convenience stores, mass merchandizers, and farmers' markets. About half (53%) owned or managed a business. The remainder (47%) were employees. We divided respondents into three categories based on where they work: food retail (n=36), food service (n=42), and both food retail and food service (n=17).

support the food scrap ban". Support was even higher (95%) among food service professionals.

Support for the Food Waste Ban

Most food business professionals expressed support for the food waste ban (Figure 6). Among those in food retail and those who work in both food retail and food service, 88% agreed or strongly agreed with the statement, "I

Strategies for Disposing of Food Waste

The survey asked food business professionals to report all the ways in which their businesses dispose of food waste (Figure 7). Among food retailers, the most reported strategy was composting on-site (27%) followed by donating to a food rescue organization (21%). Among food services, the most common strategy was having food waste picked up by a food waste service or farmer (41%) followed by donating to a food rescue organization (15%). Among respondents who work in both industries, the top strategy was having food waste picked up by a food waste service or farmer (33%) followed by feeding food waste to animals (27%). Notably, very few respondents from retail, service, or businesses that were both, reported continuing to dump food waste in the trash (3%, 5%, 0%).

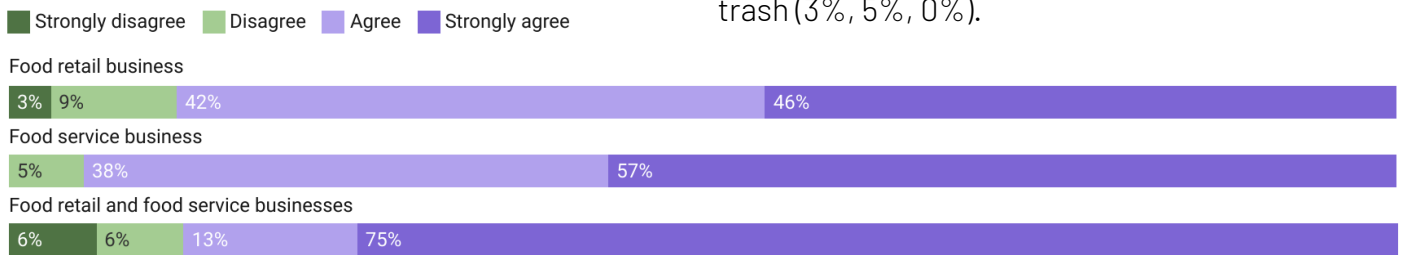


Figure 6. Level of agreement with the statement “I support the food scrap ban” among Vermont’s food retail and food service professionals (%)

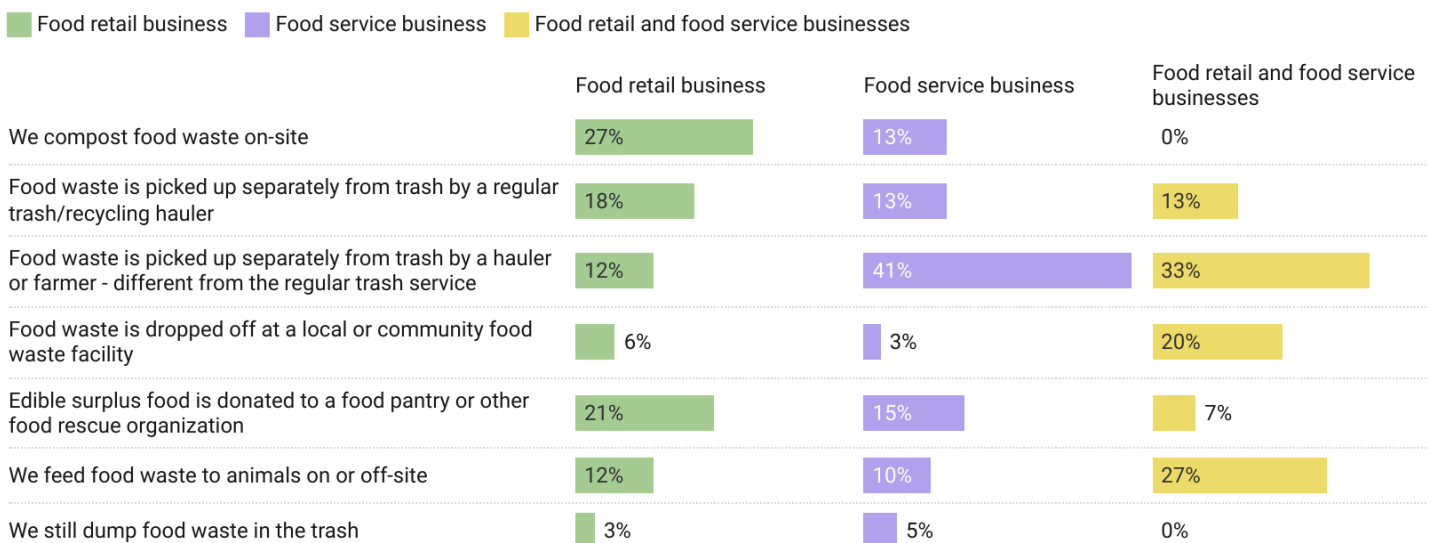


Figure 7. Ways in which food businesses in Vermont dispose of food waste (%)

Opinions about the Food Waste Ban

Few respondents reported feeling confused by the requirements of the law (21%) and most (82%) understood the reason for the ban (Figure 8). Nearly all respondents (90%) agreed that the food waste ban has benefits for the environment and 77% believed that the ban has societal benefits. At the same time, most food business professionals (79%) reported that the ban has economic costs. Almost one-third (31%) felt that customers to their businesses opposed the food scrap ban.

While over half of respondents (53%) believed that stores and food service establishments should have been given more time to implement changes needed to comply with the food waste ban, far fewer (26%) believed that the food waste ban should have been postponed during the COVID-19 pandemic.

Impacts of the Food Waste Ban on Business Operations and Costs

Questions about the impact of the food waste ban on business operations were posed to the 50 business owners and managers that completed the survey. The

impacts of the ban appear to vary by business type (Figure 9). For example, nearly half of food service owners and managers (47%) reported negative impacts on operating costs and almost one quarter reported negative impacts on revenue (24%), but these proportions were notably lower among food retail owners and managers (16% and 16%) and those who run both types of businesses (30% and 10%). Across all business types, customer satisfaction with the ban was mostly positive or neutral. Impacts on employees' satisfaction was more mixed with about one fifth of food retail owners and managers (21%) and close to one quarter of food service owners and managers (24%) reporting negative impacts compared to about a third of each type of professional reporting positive impacts (32% and 35%). Experiences with cleanliness as an impact of the ban also varied. Among those who run food retail businesses, 26% reported positive impacts on cleanliness while 16% reported negative impacts. Among food service owners and managers, equal proportions (41% each) reported positive and negative impacts on cleanliness. Finally, among those who run both types of businesses, 70% felt that cleanliness had improved. The remainder did not believe that the ban had any impact on cleanliness.

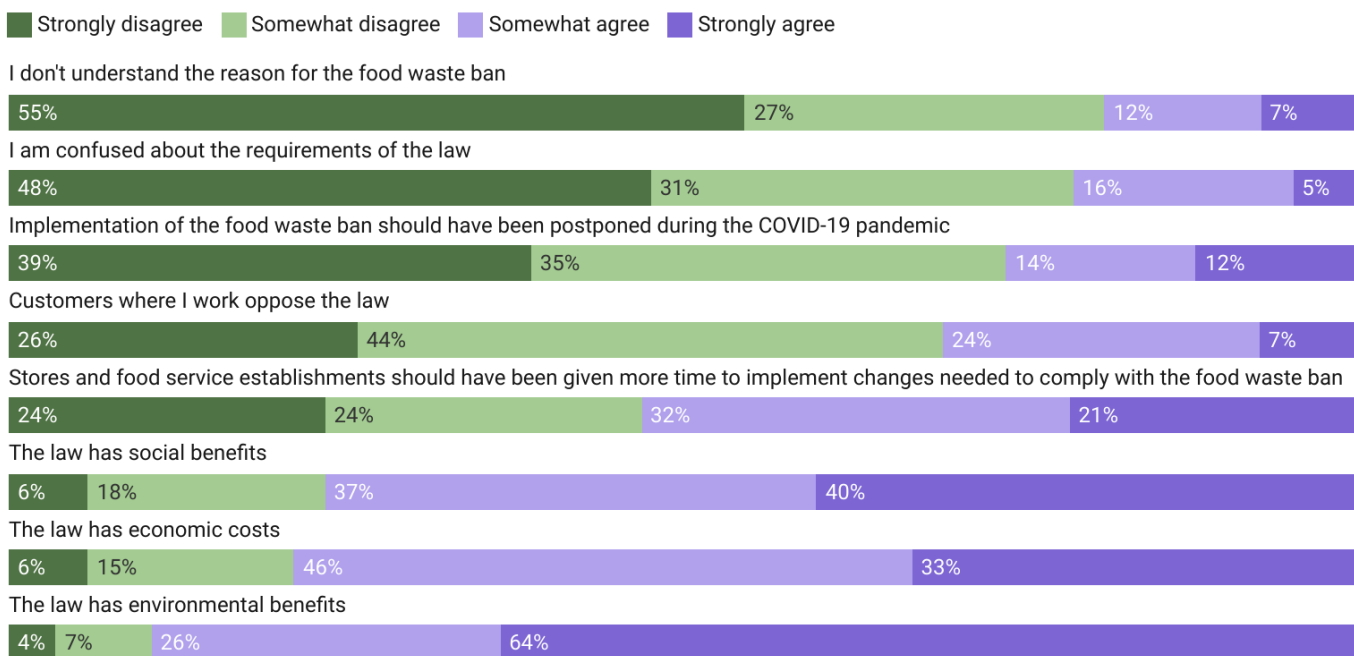
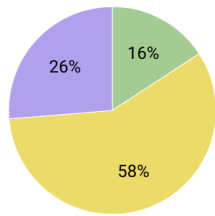


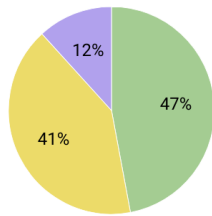
Figure 8. Food retail and food service professionals' opinions about the food waste ban (%)

■ Negative
 ■ No impact
 ■ Positive

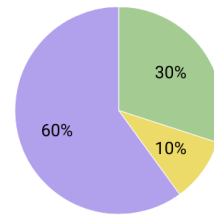
Operating costs



Food retail business

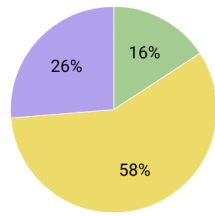


Food service business

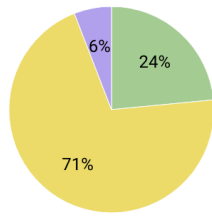


Food retail and food service businesses

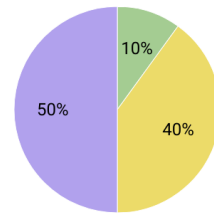
Revenue



Food retail business

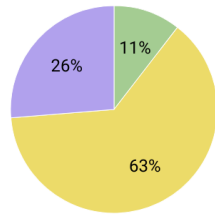


Food service business

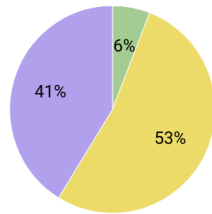


Food retail and food service businesses

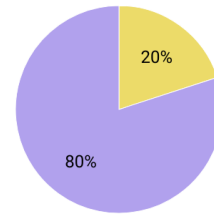
Customer satisfaction



Food retail business

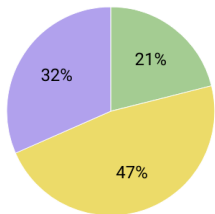


Food service business

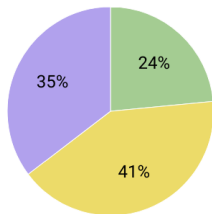


Food retail and food service businesses

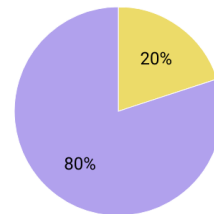
Employee satisfaction



Food retail business

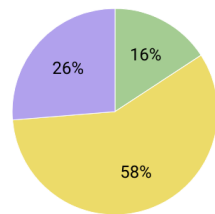


Food service business

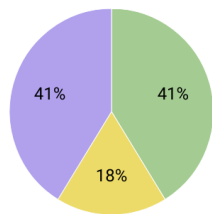


Food retail and food service businesses

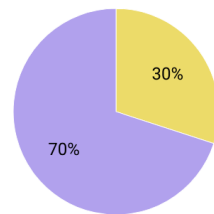
Cleanliness



Food retail business



Food service business



Food retail and food service businesses

Figure 9. Food retail and food service professionals' opinions about the food waste ban (%)

Owners and managers were asked about whether the food waste ban introduced additional costs to their businesses (Figure 10). Among those who ran either a food service or food retail business, responses were split nearly 50/50. Four-fifths of those who ran both types of businesses reported additional costs. The major costs listed by respondents included the cost of compost pickup and compostable bags.

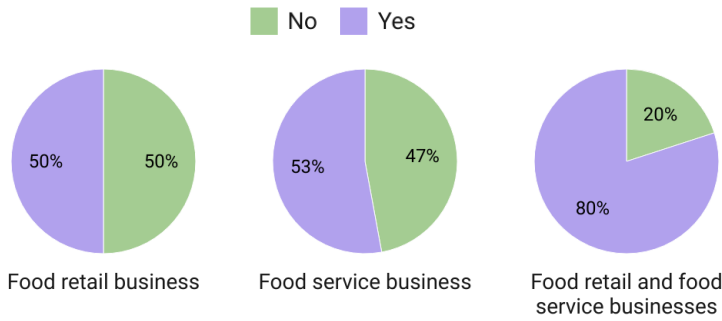


Figure 10. Whether the food waste ban introduced additional costs to the business (%)

Challenges and Opportunities Complying with the Food Waste Ban

Business owners and managers reported differing levels of difficulty complying with the food scrap ban (Figure 11).

Over one-third of food retailers (37%), about half of food service operators (53%) and two-fifths of those who run both types of businesses (40%) felt that compliance had been difficult.



Figure 11. Level of difficulty for business to comply with the food waste ban (%)

Figure 12 presents types of information or assistance that food business professionals reported would make it easier to comply with the food waste ban. For food retail owners and managers, the top type of support requested was information on how to waste less food and save money (20%). Among food business owners and managers and those who run both types of businesses, the most common request was for information on food waste haulers and their services (requested by 57% and 30%, respectively).

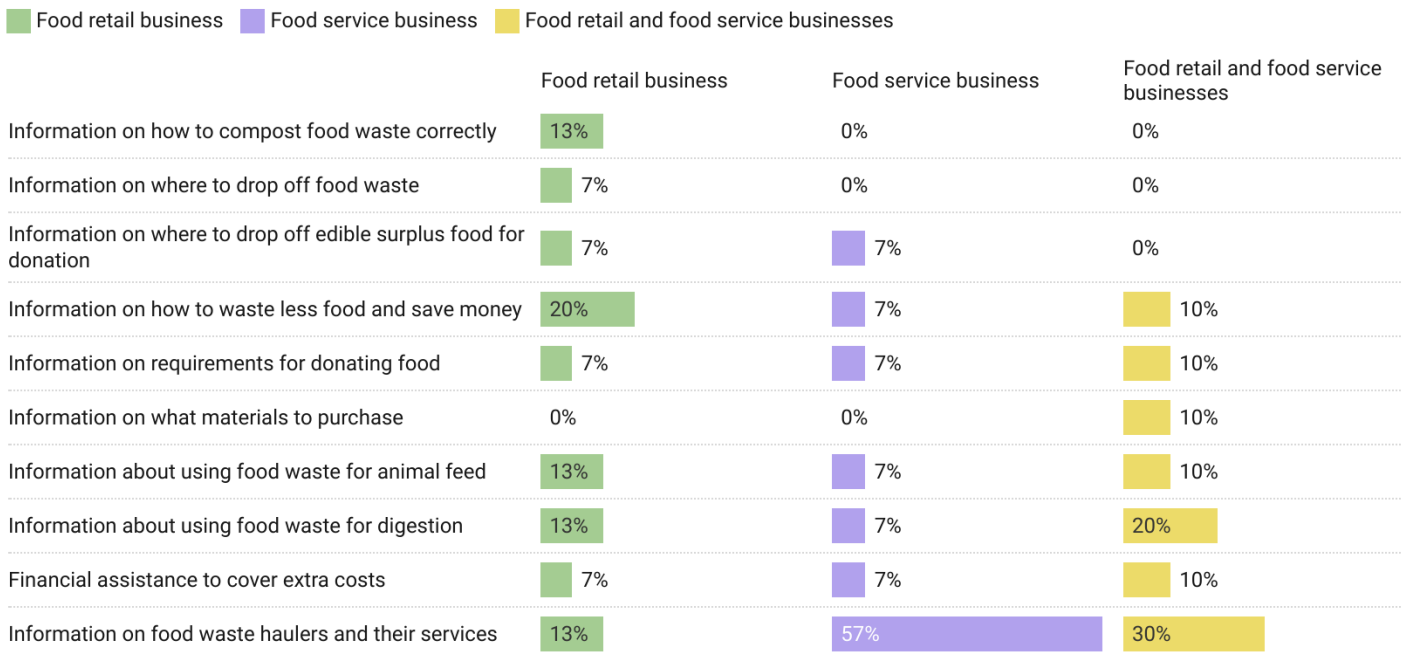


Figure 12. Type of information or assistance needed to make compliance with the food scrap ban easier (%)

Implications

The food waste ban incorporated in Vermont's Universal Recycling Act was designed to keep food waste out of Vermont's landfill to save landfill space and reduce greenhouse gas emissions. This research found that, among Vermont's residents, separating food waste from the trash increased by 50% following implementation of the ban. However, almost a third of residents are confused about the requirements of the law and almost half of those who now compost find it to be hard.

The findings from this analysis also suggest that the food waste ban is well-understood and largely supported by Vermont's food retail and food service professionals and has led to changes in how food waste is managed by those food businesses. While few food businesses report continuing to dump food waste in the trash, a substantial proportion of business owners and managers - especially food service operators - report that compliance has been a challenge and introduced new costs.

These findings indicate that increased public education about the law and how to compost may increase residential compliance. Further, investments in easier food diversion methods for businesses could support Vermont's food industry.



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To Learn More

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We would like to thank the Waste Management and Prevention Division of the Vermont Agency of Natural Resources for input on our survey instrument and many community partners for assisting with the dissemination of the food business survey: Center for an Agricultural Economy, Center for Women and Enterprise, Church Street Marketplace, Montpelier Alive, Neighboring Food Co-op Association, NOFA-VT, Rural Vermont, Vermont Agency of Agriculture, Food & Markets, Vermont Small Business Development Center, and the Vermont Sustainable Jobs Fund.

Impact of Vermont's Single-Use Plastics Ban on Consumers and Food Businesses

Introduction

In the United States, plastics comprise a major category of materials in municipal landfills and have contributed to environmental problems. In fact, plastics make up nearly one-fifth of products in municipal landfills in the United States and one-eighth of products in Vermont's one municipal landfill.^{1,2} To mitigate the harmful effects of single-use plastic products and lessen the burden of plastics on Vermont's landfill, in 2019, Vermont's State Government passed a single-use products law (Act 69 of 2019).³ The law, which went into effect on July 1, 2020, prohibits stores and food service establishments from providing single-use plastic carryout bags at the point of sale, expanded polystyrene (commonly called Styrofoam) food and beverage containers, plastic straws (except upon customer request), and plastic stirrers. Additionally, the law permits stores to provide single-use paper bags at the point of sale if the customer is charged at least 10 cents per bag.

To study the impact of the single-use products law, we conducted two statewide online surveys in 2021 and 2022: a general population survey (i.e., consumer survey) and a food business survey. The consumer survey asked about the plastic bag ban, was embedded within the 2022 Vermonter Poll – an annual statewide public opinion survey – and was completed by 783 Vermont residents. The sample represents the adult population of Vermont with respect to gender distribution and household size, but over-represents older adults and those with greater incomes and education. The food business survey was distributed across the state through the email lists of non-profit, business, and state agencies; public posts on Front Porch Forum; posters in public places; and newspaper advertisements. The food business survey addressed all aspects of the single-use products law and was completed by 95 food service and food retail professionals. This report summarizes the findings of both surveys relevant to Vermont's single-use products law.

Key Takeaways

1. Following implementation of the law, Vermonters reported using, on average, 91% fewer plastic bags (6 per week). This does not appear to have been offset by substantially greater use of single-use paper bags.
2. Most respondents to the consumer survey (66%) agreed that the environmental benefits of the plastic bag ban outweigh the economics costs.
3. Few consumers (18%) or food business professionals (18%) reported feeling confused about the requirements of the law.
4. Charging for paper bags was identified by food business owners and managers as the most challenging requirement to comply with.
5. Across food businesses, the law has a mostly neutral or positive effect on revenue and cleanliness.
6. Food service owners and managers report more negative impacts on operating costs, customer satisfaction, and employee satisfaction than food retailers.



Survey of Vermont Consumers

Opinions about the plastic bag ban

The plastic bag ban appears to be well-understood by Vermont's residents, with few (18%) reporting feeling confused about its requirements (Figure 1). Overall, the ban appeared to receive public support following implementation. About two-thirds of survey respondents (66%) strongly or somewhat agreed that the environmental benefits of the ban outweigh the economic costs and almost three-quarters (73%) reported that they feel morally obligated to reduce their use of plastic bags to protect the environment. A little less than a third of respondents (28%) felt that stores should be allowed to provide plastic bags for a charge, but a small portion (15%) felt that the law should go further and additionally ban paper shopping bags. More than half of respondents believed that the plastic bag ban has been strictly enforced (61%) or were unsure about the level of enforcement (21%).

Plastic and paper bag use before and after the ban

The most substantial component of the single-use products law was the ban on providing single-use plastic carryout bags. Following implementation of the

ban, survey respondents reported using fewer plastic bags but slightly increasing their use of paper bags from food stores and food service establishments despite the mandatory \$0.10 fee per paper bag (Figure 2). On average, consumers reported getting over six plastic bags per week prior to the ban, but less than one per week after, suggesting that the ban has resulted in reduced plastic bag use, but not eliminated it.

Number of plastic bags used per week



Number of paper bags used per week



Figure 2. Number of plastic and paper bags used from food stores and food services before and after implementation of the single-use products law

Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat agree Strongly agree

I am confused about the requirements of the plastic bag ban



The environmental benefits of the ban are greater than the economic costs



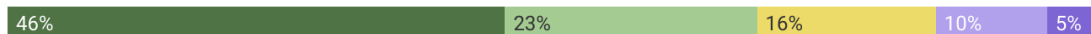
I feel morally obliged to reduce my use of plastic bags to protect the environment



Stores should be allowed to provide plastic carryout bags at checkout for a charge



Paper shopping bags should also be banned



The ban has been strictly enforced



Figure 1. Vermont consumers' opinions about the plastic bag ban (%)

Survey of Food Retail and Service Professionals

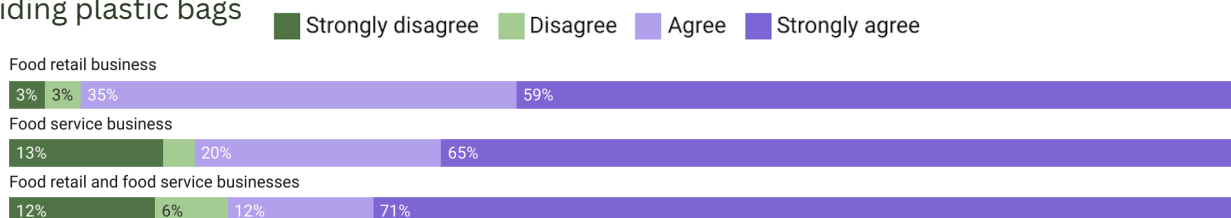
Respondents to the food business survey represented a variety of food establishments, including restaurants, fast food, catering, institutions, food trucks, grocery stores, cooperatives, convenience stores, mass merchandizers, and farmers' markets. Over half (53%) reported being business owners or managers while the remainder (47%) were employees. We divided respondents into three categories based on where they work: food retail (n=36), food service (n=42), and both

food retail and food service (n=17). Survey respondents were asked about all aspects of the Vermont's single-use products law.

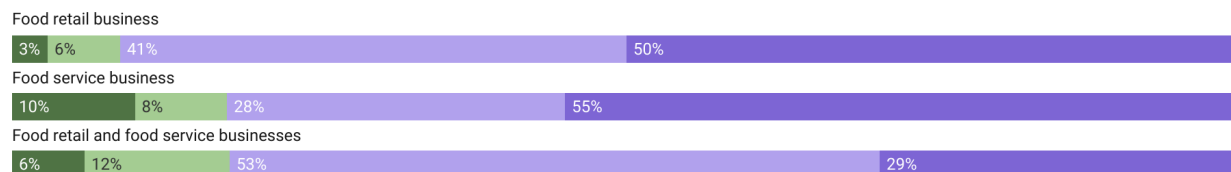
Support for the Single-Use Products Law

The data suggest high levels of support among food service professionals for all aspects of the law (Figure 3). Among food retail professionals, the highest level of support was for the ban on providing plastic bags (94%). Among food service

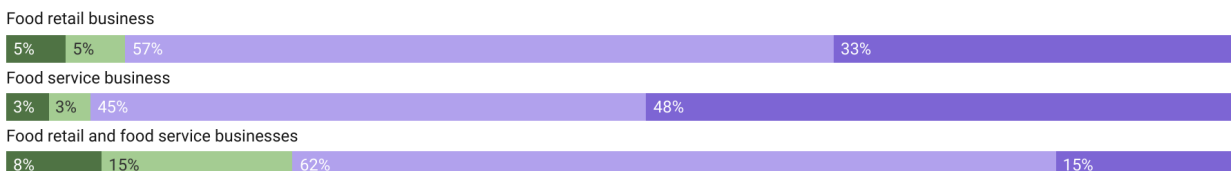
Ban on providing plastic bags



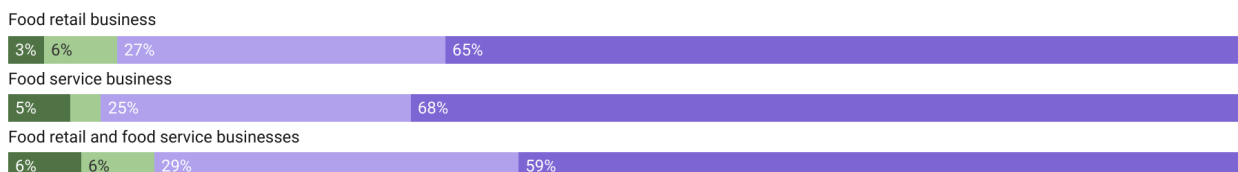
Ban on automatically providing plastic straws



Ban on providing plastic stirrers



Ban on expanded polystyrene containers



Charge for paper bags

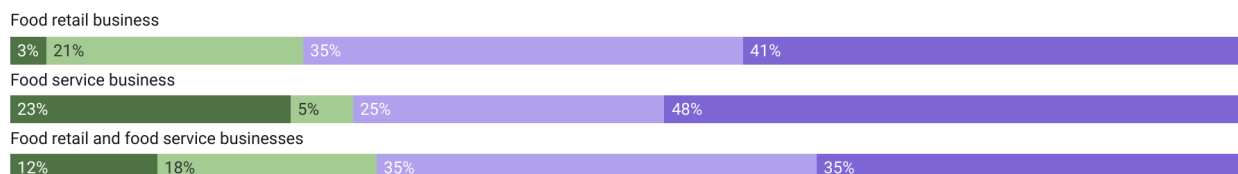


Figure 3. Vermont food business professionals who support each aspect of the single-use products law (%)

professionals, the highest level of support was tied between the bans on providing expanded polystyrene containers and plastic stirrers (both 93%). Those who worked in both industries were most likely to support the ban on expanded polystyrene containers (88%).

Impacts of the Law by Business Type

Aside from the plastic bag ban, respondents were asked to report whether their food business was impacted by other aspects of the law. Food retail professionals were most likely to report being impacted by the charge for paper bags and the ban on expanded polystyrene containers, while food service professionals and those who worked in both types of food businesses were most likely to report being impacted by the bans on expanded polystyrene containers and providing plastic stirrers (Figure 4).

Opinions about the Law

Most food business professionals did not feel confused about the requirements of the law (81%; Figure 5).

Paralleling what was documented among the general population, there appears to be high levels of support for the single-use products law among food retail and food service professionals. Although most (81%) reported that the law has economic costs, almost all agreed that it has benefits for the environment (93%) and society (85%). Less than one-third (27%) felt that their customers opposed the law.

Implementation of the Law and Possible Improvements

Food business professionals had differing beliefs about the implementation of Vermont's single-use products law (Figure 6). Approximately half (56%) felt that stores and food service establishments should have been given more time to implement the changes needed to comply. However, only about one-third (35%) felt that implementation should have been postponed during the COVID-19 pandemic.



Figure 4. Requirements of the law that affect each type of food business (aside from the plastic bag ban) (%)

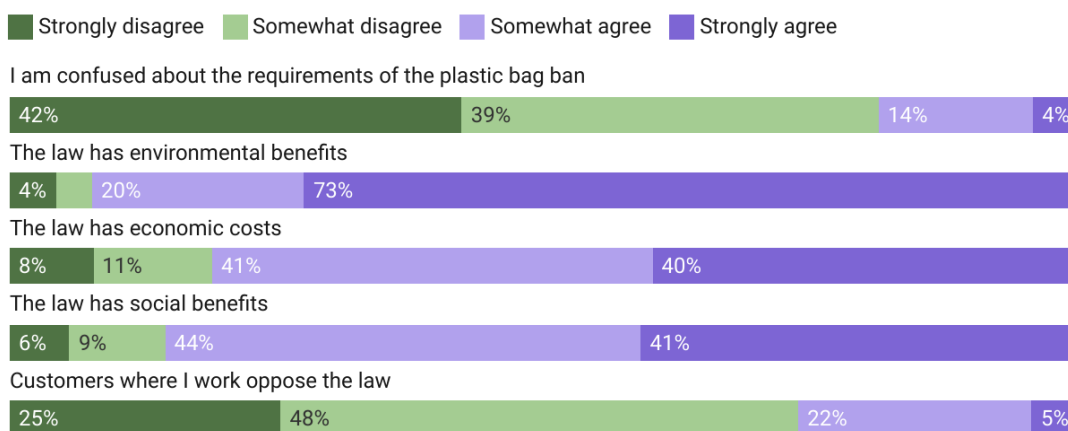
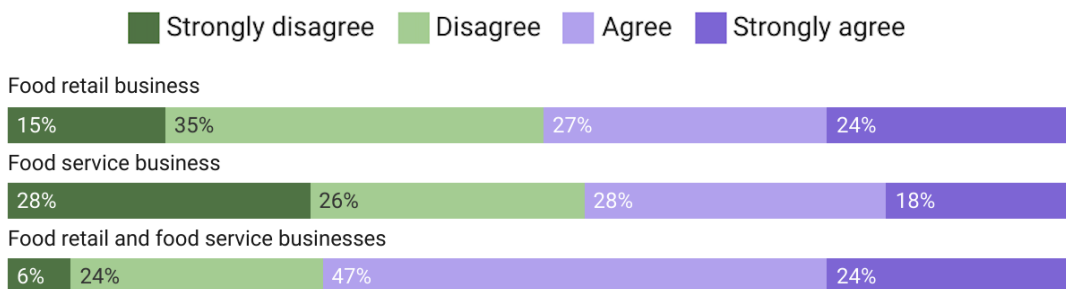


Figure 5. Vermont food business professionals' opinions about the single-use products law (%)

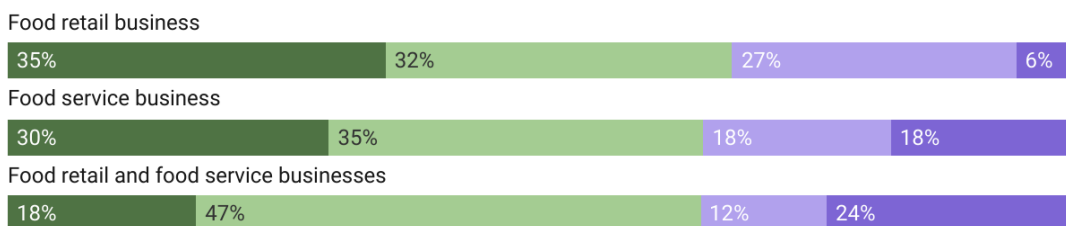
While plastic carryout bags cannot be provided at checkout, stores and food service establishments can provide plastic bags for containing loose objects within the store (e.g., produce, bulk items, meat, fish), containing prescription medications, and containing laundry items.

About two-thirds of food business professionals (70%) felt that the law should go further and additionally ban plastic bags for these uses. However, opinions were split about whether stores and food service establishments should be allowed to provide plastic bags at checkout for a charge, with slightly over half (57%) of respondents disagreeing.

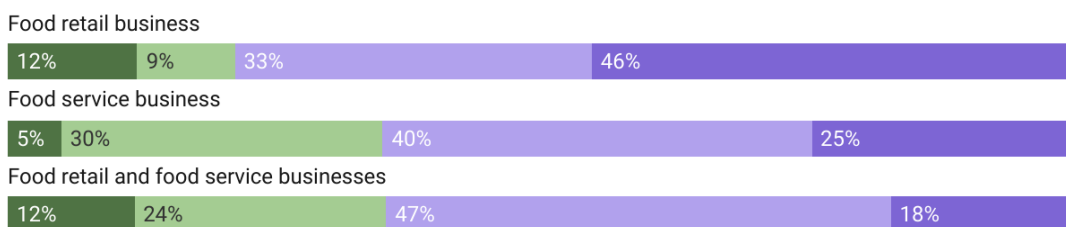
Businesses should have been given more time to implement changes needed to comply with the law



Implementation of the law should have been postponed during the COVID-19 pandemic



The law should also ban use of plastic bags for containing loose objects within the store



Stores and food service establishments should be allowed to provide plastic bags at check-out for a charge

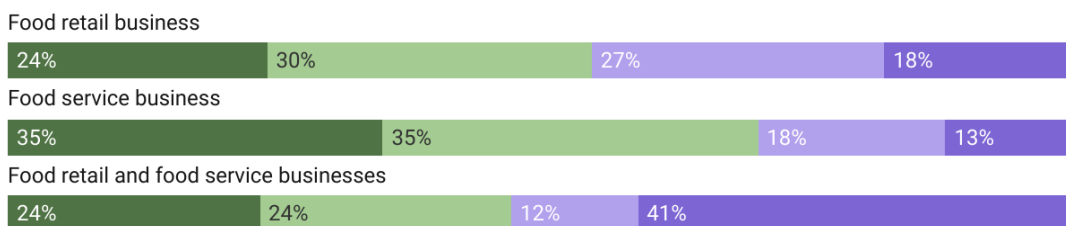


Figure 6. Vermont food business professionals' opinions about implementation of the single-use products law and possible improvements (%)

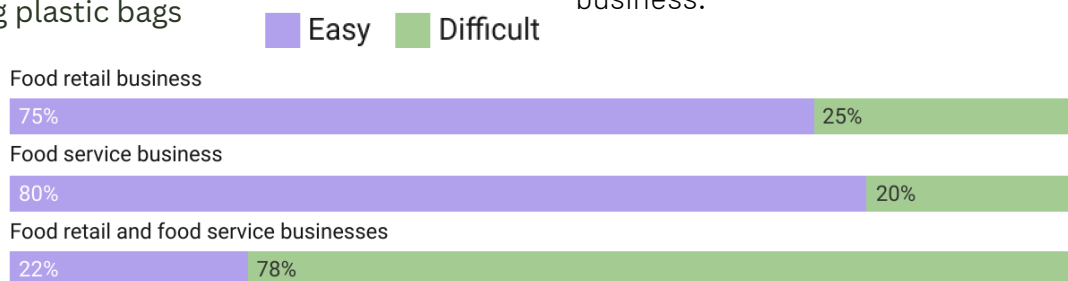
Impacts of the Law on Business

Operations and Costs

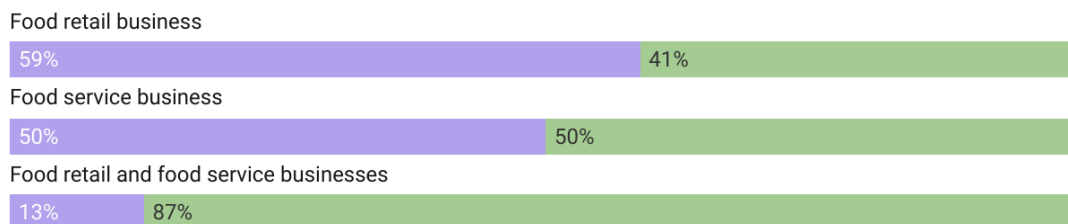
Questions about the impacts of the law on business operations were posed to the 50 business owners and managers that completed the survey. For those who reported being impacted by each aspect of the law, Figure 7 presents the proportion who felt that it has been challenging to comply. Among food retail owners and managers, the most challenging aspects to implement

were adding the charge for paper bags (40%) followed by the bans on plastic bags and plastic stirrers (both 25%). Food service owners and managers similarly identified adding the charge for paper bags to be the most challenging component to comply with (50%) followed by the ban on expanded polystyrene containers (41%) and the ban on automatically providing plastic straws (31%). Across all requirements of the ban, those who ran both food retail and food service businesses reported higher levels of difficulty complying with the law as compared to those who ran just one type of food business.

Ban on providing plastic bags



Charge for paper bags



Ban on automatically providing plastic straws



Ban on providing plastic stirrers

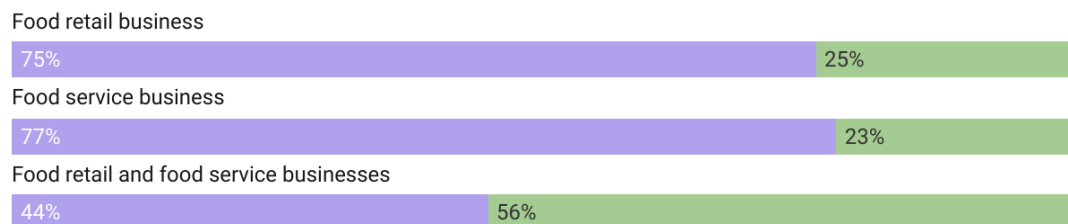


Figure 7. Ease of implementing the single-use products law according to Vermont food business owners and managers (%)

Ban on expanded polystyrene containers

Easy Difficult

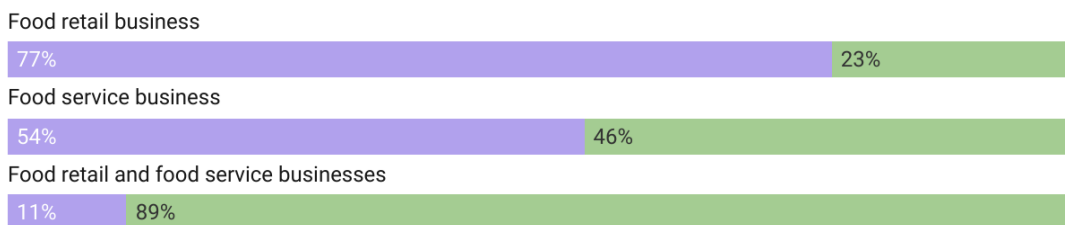


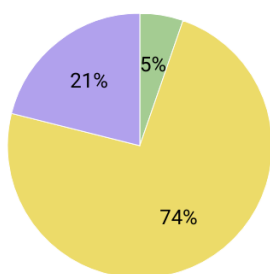
Figure 7 (cont.). Ease of implementing the single-use products law according to Vermont food business owners and managers (%)

The majority of owners and managers (≥ 89%) from all business types felt that the law had a neutral or positive effect on revenue and cleanliness (Figure 8). Compared to food retail owners and managers, a greater proportion of food service owners and managers reported that the law had a negative impact on their operating costs

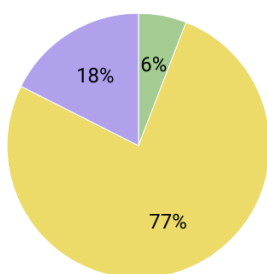
(35% vs. 11%), customer satisfaction (35% vs. 16%), and employee satisfaction (24% vs. 0%). In general, responses about the business impacts from those who owned or managed both food retail and food service operations were more positive and/or neutral than those who owned or managed just one type of food business.

Revenue

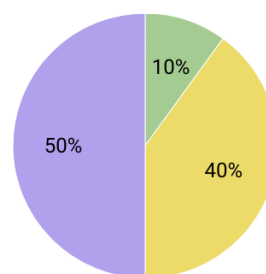
Negative No impact Positive



Food retail business

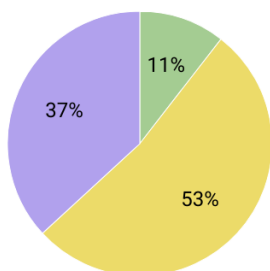


Food service business

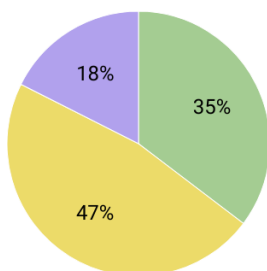


Food retail and food service businesses

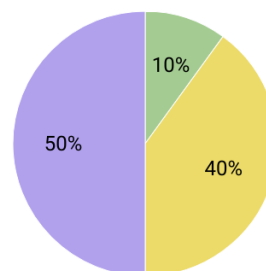
Costs



Food retail business



Food service business

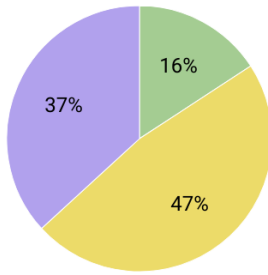


Food retail and food service businesses

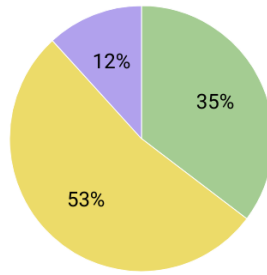
Figure 8. Impacts of Vermont's single-use products ban on food business operations and costs (%)

Customer satisfaction

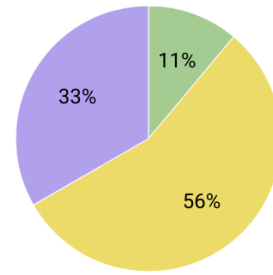
■ Negative
 ■ No impact
 ■ Positive



Food retail business

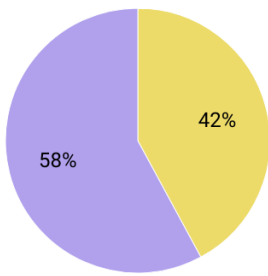


Food service business

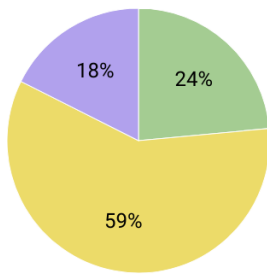


Food retail and food service businesses

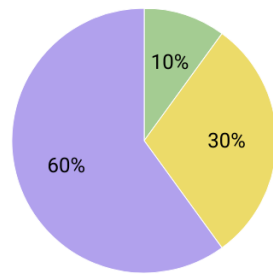
Employee satisfaction



Food retail business

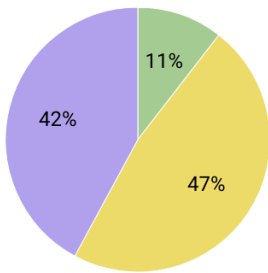


Food service business

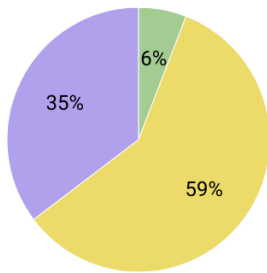


Food retail and food service businesses

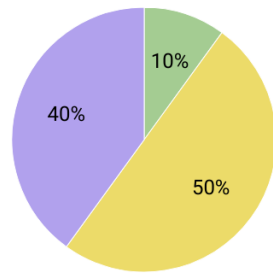
Cleanliness



Food retail business



Food service business



Food retail and food service businesses

Figure 8 (cont.). Impacts of Vermont's single-use products ban on food business operations and costs (%)

Additional Reflections on the Law

Respondents were invited to share any other thoughts about the law or suggestions for information or assistance that would make it easier for their business to comply. Multiple people shared positive sentiments.

We tried to implement this ban before the law and received lots of negative feedback from customers. By having it come via litigation, adoption was immediate and no customer pushback since it wasn't only us. The law made it easy, painless, and awesome.

- Owner of food retail business

Some emphasized that more publicity and public information about the components of the law would be helpful, as would support with the additional costs of compliance and finding alternative disposable tableware products. Several respondents noted that identifying appropriate alternatives to single-use plastics, especially for food service packaging, had been a source of frustration after Vermont's largest commercial compost facility stopped accepting compostable foodware.

We had worked very hard on converting all of our single-use items to be either recyclable or compostable, to be in compliance... a few months ago [we] found out CSWD [Chittenden Solid Waste District] would no longer accept many of the compostable products we switched too. This is extremely frustrating and we've switched back to many of the cheaper, non-compostable products since it's all trash now anyway. Figuring this out would certainly help! People are willing to do the right thing, with reasonable cost, but keeping up with changes, switching products, educating customers... it's all very time-consuming and can be quite frustrating.

- Owner of food retail and food service business

Implications

Vermont has responded to the environmental, economic, and social threats posed by accumulating plastic pollution with policy action to reduce single-use products (especially plastics) in food retail and food services (Act 69 of 2019). The findings from this analysis suggest that the law has been generally well-received and understood by the state's residents and food businesses and that it has resulted in reductions in single-use plastics at point of purchase.

The findings also shed light on aspects of the law that have had a greater impact on different types of food businesses. For those who ran either food retail or food service businesses, the compulsory charge for paper bags has been the most challenging aspect. Those who run both types of businesses have been challenged by both the charge on paper bags and the ban on expanded polystyrene containers. Food businesses may benefit from additional support identifying low-cost alternatives to single-use plastic products that are accepted by local recycling and/or composting facilities.

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1. Environmental Protection Agency. (2022, September 19). *Plastics: Material-Specific Data*. Environmental Protection Agency. <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/plastics-material-specific-data>.
2. DSM Environmental Services Inc. & MSW Consultants. (2018). *2018 Vermont Waste Characterization*. <https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/2018-VT-Waste-Characterization.pdf>.
3. An act relating to the management of single-use products, Public Law No. 69. (2019). <https://legislature.vermont.gov/Documents/2020/Docs/ACTS/ACT069/ACT069%20As%20Enacted.pdf>.

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