

Vermont Emergency Eats: An Economic Analysis of Impact and Lessons Learned December 2023

Authors: Elizabeth Schuster and Michelle Klieger



Contents

Quick Facts	3
Executive Summary	4
Overview of the Emergency.	5
Launch of Vermont Emergency Eats.	7
Relevant Findings from Food Security and Disaster Preparedness Research.	9
Analysis of Vermont Emergency Eats	11
Data and Survey Findings.	12
10 Lessons Learned for Future Disasters	15
Next Steps and Conclusion	19



Heavy rains started flowing on Sunday, July 9, 2023, causing rivers and streams to overflow and wash out roads, bridges, and homes in Vermont.

This led to “catastrophic flooding,” according to Vermont Governor Phil Scott who declared a state of emergency and called up the National Guard on Sunday, July 9, 2023.



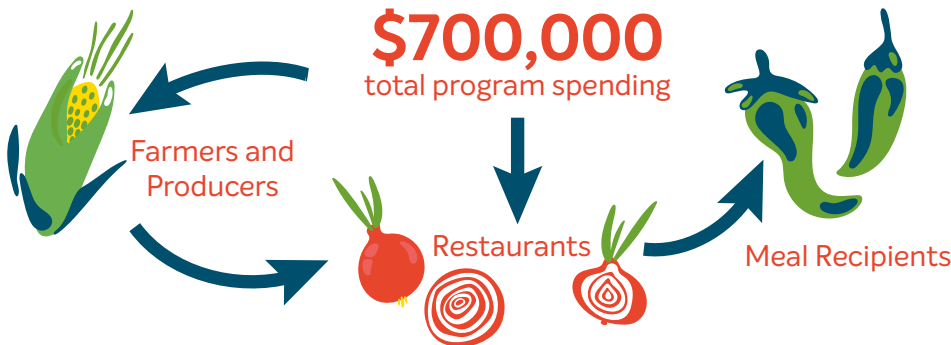
VERMONT
EMERGENCY
EATS



Vermont Emergency Eats successfully distributed meals to flood-impacted Vermonters from August 7 to November 4, 2023.

Restaurants received a **\$10** reimbursement for each VEE meal.

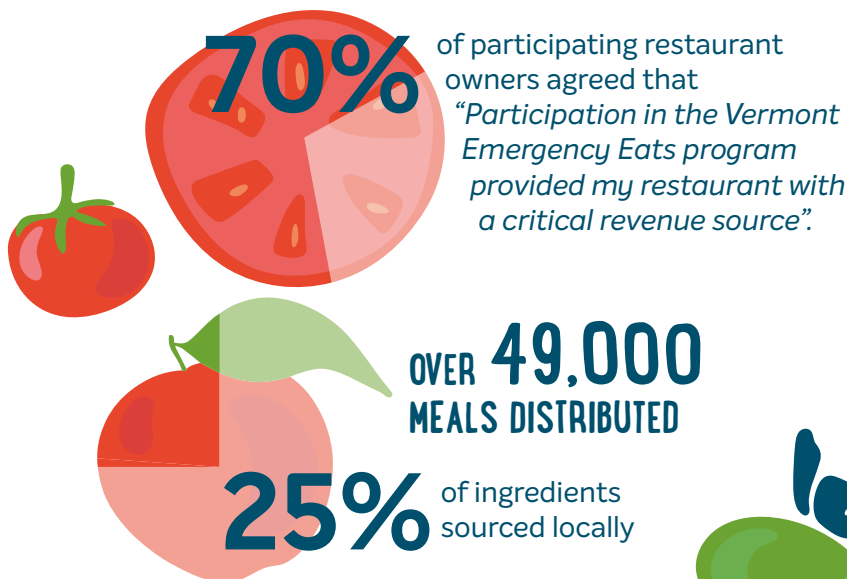
HOW THE PROGRAM WORKED:



\$1,120,000

re-circulated back into local inputs and local labor pools by farmers and restaurants (this represents additional spending beyond the initial expenditure)

IMPROVED ECONOMIC RESILIENCE DURING AN EMERGENCY:



Total reported flood damage for participating restaurants

\$703,500

showing a strong need for supporting restaurant resilience after the flooding

Total program investment

\$700,000

\$88,000

leverage which is reinvestment of private dollars by restaurants to repair flood damage and/or expand small business infrastructure and equipment





Executive Summary

Vermont Emergency Eats was launched on August 7, 2023, in response to heavy flooding across Vermont. Significant damage to homes and infrastructure made it difficult for many Vermonters to access food. This program was activated to provide restaurant-prepared meals to flood-impacted, food-insecure Vermonters. Vermont Emergency Eats was modeled after the highly successful Vermont Everyone Eats, with the same goals of increasing food security, bolstering economic resilience, and supporting the local food system during a time of disruption.

Food security and food access during emergencies are pressing issues globally, particularly due to climate change impacts contributing to more frequent and severe flood and storm events. Yet very few examples exist of integrated programs that combine local foods, restaurants, and food access. Vermont is an early adopter of innovative, complex solutions to food security needs in its collaboration with players who are not traditionally considered food security partners, encouraging out-of-the-box thinking and systemic change. Vermont Emergency Eats is an inspiring success story resulting in long-lasting economic, agricultural, and food security benefits.

Vermont Emergency Eats has built on the success, knowledge, and existing infrastructure of Vermont Everyone Eats. However, the original program (August 2020 to March 2023) was a statewide response to a multi-year pandemic while its reactivation (August 2023 to November 2023) was a response in specific counties to floods that lasted 90 days.

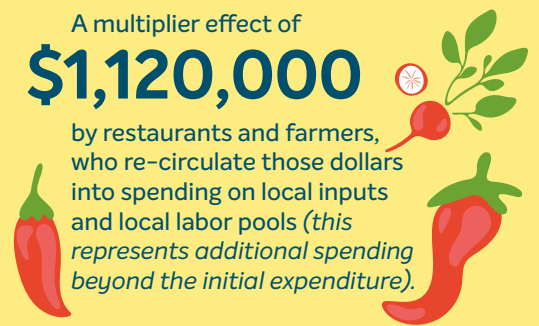
In light of the program differences, a key question emerged—Would Emergency Eats result in measurable outcomes in its second iteration, once again serving as a safety net for restaurants, farms and food producers, and individual meal recipients during a time of disruption?

The results are in, and the data shows that Vermont Emergency Eats did have quantifiable economic resilience benefits in addition to food security benefits. Despite a shorter duration, the infusion of nearly \$700,000 into the program was remarkable, rippling across the local economy, with a smaller impact that was more or less proportional to the results of the first, longer version of the program.

Key Findings

A multiplier effect of
\$1,120,000

by restaurants and farmers, who re-circulate those dollars into spending on local inputs and local labor pools (*this represents additional spending beyond the initial expenditure*).



The total reported flood damage for participating restaurants was **\$703,500**, showing a strong need for supporting restaurant resilience after the flooding.

There was an **\$88,000** leverage, which is the **reinvestment of private dollars** by restaurants into repairing flood damage and/or expanding small business infrastructure and equipment.

Economic resilience during an emergency improved, with 70% of participating restaurant owners agreeing that, “Participation in the Vermont Emergency Eats program provided my restaurant with a critical revenue source.”

Over **49,000 meals** were distributed.

25% of **ingredients** were sourced locally.

This analysis is intended to build on and supplement the initial research presented in “Vermont Everyone Eats economic analysis: VEE’s dual investment in the local food economy and food security for Vermonters” (Schuster and Klieger, 2023). The analysis and findings in this current report showcase the impact of Vermont Emergency Eats, 10 key lessons learned, and next steps looking forward.

Overview of the Emergency

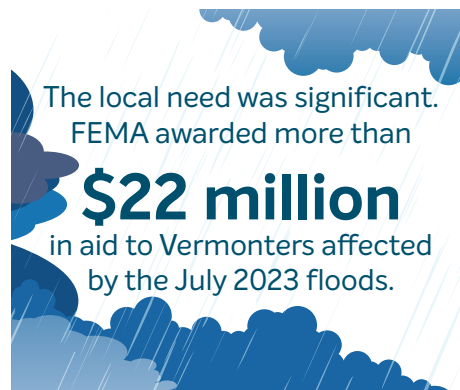
SUMMARY OF THE EMERGENCY

Heavy rains started on Sunday, July 9, 2023, overflowing rivers and streams and washing out roads, bridges, and homes in Vermont. This led to “catastrophic flooding,” according to Vermont Governor Phil Scott, who declared a state of emergency and called up the National Guard on Sunday, July 9, 2023. The following day, President Joe Biden declared a federal state of emergency in Vermont, authorizing the Federal Emergency Management Agency (FEMA) to coordinate disaster relief efforts.

The National Weather Service (NWS) reported that the July 2023 rainfall totals rivaled and, in some cases, exceeded the highs set by Tropical Storm Irene in 2011 and that July rainfall at Montpelier exceeded the previous monthly record set in August 1989 (10.69”), with a new all-time-high of 12.06” (Banacos, 2023).

At the storm’s peak on Sunday night, more than 10,000 Vermonters had no electricity. On Tuesday, 3,000 Vermonters were still without power, with 20% (or 600) located in Washington County, an area including Montpelier, which was also severely impacted by flooding after the storm waned. Restoring power was challenging. The town of Morrisville alone sustained nearly \$3 million in flood damage to its utilities infrastructure, rendering the water unsafe to drink for over a week and two out of three local hydroelectric dams inoperable for months.

LACK OF POTABLE WATER INCREASES PREPARED MEAL DEMAND: *The flooding caused Morrisville Water and Light’s primary drinking water well to be overrun by the Lamoille River. This led to a rare “Do Not Drink” notice mandated by the Vermont Agency of Natural Resources. This example illustrates the intensified need for prepared meals because it limited people’s ability to prepare food at home.*



The aid was delivered through FEMA’s Individuals and Households Program, covering rental costs, repair expenses, and some personal property and losses in eligible counties (Petenko 2023).

The Vermont Agency of Agriculture also assessed damages through a survey, with every county reporting damages and a total of 264 responses submitted. Altogether, 27,318 acres were impacted, with total losses estimated at \$16.1 million. The average respondent

reported 103 impacted acres and \$61,000 in damages. Of those insured, an equal number were insured through the USDA and private insurance (Vermont Agency of Agriculture, 2023).

IDENTIFYING THE NEED TO ACTIVATE VERMONT EMERGENCY EATS

The infrastructure damage from the storm and subsequent flooding exceeded the state’s threshold for qualifying for maximum federal reimbursement for disaster recovery projects. The economic impact and destruction created newly food insecure households. The damage further increased food insecurity among flood-impacted Vermonters.

Without electricity, storing food in freezers and refrigerators and cooking with appliances were not feasible. A lack of potable water created unsanitary conditions, preventing people from cooking and eating at home. Plus, many people were forced to leave their homes due to structural damage from the flooding. All of these reasons supported the need not only for additional food access programs but also specifically for prepared meals. Using the Vermont Everyone Eats model as a starting point, community partners were able to quickly mobilize local restaurants to assist in addressing the immense need.

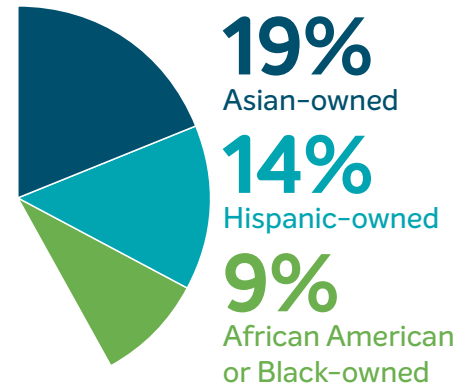
Individuals were not the only ones supported by this program. Through Vermont Emergency Eats, restaurants

played a key role in the disaster relief, serving as a stabilizing force in their communities. This program not only relied on restaurants to prepare meals, but it also offered them the financial support and stability they needed to survive the disaster.

In non-emergency circumstances, restaurants typically struggle to maintain profitability. A 2005 Ohio State University (OSU) study reported that 60% of restaurants do not make it past the first year and 80% go under in five years. It's even more challenging for restaurants to survive under extreme conditions, like a natural disaster (FoodIndustry.com, 2021). That finding aligns with the data collected in post-Emergency Eats surveys as part of the analysis in this report.

Despite the obstacles to success, restaurants contribute to equity and economic development in minority communities by fostering a sense of community, employing local workers, supporting local supply chains, increasing tax revenue, and encouraging tourism. Vermont is one of the only states that does not disclose restaurant ownership data, but the National Restaurant Association (NAR) reports that 41% of restaurants are minority-owned while only 30% of private sector businesses hold the same distinction. Nationally, 19% of restaurant firms are Asian-owned, 14% are Hispanic-owned, and 9% are Black- or African American-owned.

National Restaurant Ownership:



Restaurants are also more likely to have women owners (NAR, 2022). These groups face challenges accessing capital, which can make surviving challenging times even harder.



Images: VEE/SEVCA

Launch of Vermont Emergency Eats

OVERVIEW OF THE LAUNCH

Vermont Emergency Eats successfully distributed meals to flood-impacted Vermonters from August 7 to November 4, 2023. The total program investment of nearly \$700,000 provided over 49,000 meals. This program had dual objectives to support food security and the local economy while increasing food access by strongly encouraging local restaurants to include local food products in their meals. Eligible Vermonters (see [Vermont Emergency Eats website](#) for eligibility criteria) received free meals from local restaurants.

Each meal was required to:

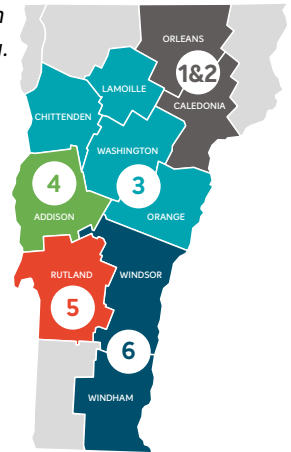
1. Be hearty, healthy, substantial, and filling;
2. Contain at least 6 ounces (oz.) of protein, a starch, and at least 1/3 vegetable and/or fruit; and
3. Weigh a minimum of 14 to 16 oz.

Participating restaurants received a \$10 reimbursement for each Emergency Eats meal.

Because the July 2023 flooding emergency compromised local farmlands and the availability of local ingredients, the local supply chain experienced significant impacts; consequently, restaurants were not required to include a minimum percentage of local ingredients, as they previously were in Everyone Eats. Nevertheless, they were still required to report the percentage of local ingredients purchased and used in Emergency Eats meals, and they were strongly encouraged to use local ingredients to maximize

Using a “hub” model, organizers were able to target program activation and meal distribution in the affected regions only. Six hubs participated in this program:

1. Green Mountain Farm-to-School
2. Center for an Agricultural Economy
3. Capstone Community Action
4. Giving Fridge
5. Vermont Farmers Food Center
6. Springfield Family Center/ Chester Helping Hands



the indirect benefit to local farmers and producers.

“Every hub is doing things a bit differently, which is appropriate, given that they know their community the best,” said Amanda Witman, Vermont Emergency Eats Program Coordinator. Giving hubs the flexibility to select restaurants and design distribution approaches was key to local, customized solutions and faster disaster response.

OVERCOMING INITIAL CHALLENGES

Flood emergencies happen fast. The urgent needs and immediate responses required across Vermont quickly resulted in some initial challenges, particularly with processes. Because food security was not fully incorporated into any formal state emergency plans, a lot of decisions and processes had to be developed in real time, after the disaster had already hit. Questions regarding initial funding authorization and fiscal management had to be assessed. So did

questions about state agency oversight and responsibilities for managing and implementing the program.

To address those issues, the Vermont Agency of Commerce and Community Development (ACCD) was designated as the contracting agency, and Southeastern Vermont Community Action (SEVCA) was confirmed as the program administrator. This selection was made to support the quickest and smoothest possible launch, as ACCD and SEVCA had previously administered the Everyone Eats program.

More initial challenges arose without a system in place for quickly identifying who was impacted and where those impacted individuals were located. That made it unfeasible to effectively determine unmet need. In a rural state like Vermont, those challenges were exacerbated by lower population densities in some areas, raising the risk that smaller groups of impacted residences and communities would be missed.



Images: VEE/SEVCA

Additionally, it was not easy to determine the full extent and distribution of different types of impacts, such as which roads were flooded and blocked, where drinking water was unsafe, where individuals' ability to work was compromised, where kitchens or homes were damaged, or who was displaced from their homes and living in a tent or hotel without a kitchen. In an emergency, it is important to ensure that the smaller areas of unmet need are not missed.

Finally, given the nature of the flood damage, the team had to quickly mobilize and determine which elements of the

Everyone Eats model needed to be adapted, what changes needed to be made to address situation-specific emergency conditions, what the eligibility requirements would be, and which partners would be most effective in reaching those hardest hit by the flooding. With the need for rapid response, the hubs and most of the restaurants engaged for this specific emergency were those with previous experience providing meals through Everyone Eats.

As the hubs identified the best-fit methods of meal distribution, based on their unique local conditions during

this specific emergency, it became clear that some local needs during Emergency Eats differed from those present during Everyone Eats. Guidelines for meal distribution were adapted for each hub to accommodate these differences and support meals distribution to as many eligible recipients as possible.



Relevant Findings from Food Security and Disaster Preparedness Research

GLOBAL AND NATIONAL FOOD SECURITY RESEARCH

While emergency planning is a hot topic globally, surprisingly, agriculture is not commonly a core component of emergency plans. The Food and Agricultural Organization has been advocating for agriculture to be an integral element of crisis response, and a recent online article advised that, “[A]gricultural aid must be part of the response planning — not an afterthought” (Paulsen, 2023).

Similarly, a 2021 policy brief recommended more investment in food and nutrition programs, with an emphasis on agricultural investments in the face of escalating humanitarian and climate crises (Bertini and Cousin, 2021).

As climate change threatens to exacerbate food security issues globally, the need to incorporate food security into comprehensive, collaborative emergency management planning processes may be more urgent than ever. Climate change has a dual impact, causing:

1. More serious storms and flood events
2. Direct threats to the viability of agricultural production

A 2019 publication makes the case that the U.S. has an opportunity to be a more proactive leader in improving the climate resilience of food systems on an ongoing basis, not just during food security emergencies (Sova et al., 2019).

Furthermore, extensive research has shown the challenges of food access from

agricultural areas to more urban towns and cities, exposing the need for better integration across economic, social, and environmental goals (Sonnino, 2014).

Vermont Everyone Eats and Vermont Emergency Eats are considered innovative new solutions to this ongoing challenge. Through a thorough literature review, it was hard to find a single case study that matched these programs’ depth and breadth of impact.

DISASTER PREPAREDNESS

Some resources on incorporating food security into emergency response planning do exist. The U.S. Department of Agriculture (USDA) Foods in Disaster Manual defines a “major disaster” versus an “emergency,” detailing the three major USDA-led methods for responding to nutrition needs while defining the relationship between federal and state agencies (USDA, 2021).

Nevertheless, existing resources are not specific to local communities, and they do not offer detailed guidance on how to



Image: VEE/SEVCA



Images: VEE/SEVCA

incorporate food security into disaster preparedness. Furthermore, many of these guides also overlook the critical coordination of non-governmental entities failing to recognize their need for more federal funding, so they can optimize efficiency and the delivery of services (Sledge and Thomas, 2019).

Another factor to consider is that disaster response approaches vary, depending on the type of disaster. A comprehensive report from OSU on food system resiliency and planning lessons from COVID-19 provides useful recommendations regarding how to differentiate pandemic response (Inwood et al., 2022). Top food system impacts included insufficient health support for essential workers in food processing and retail, as well as a slow transition from food consumption at schools and other

institutions to in-home food consumption. The report also found that many agencies not historically involved in food security suddenly became pivotal, “such as transportation, which impacted shipping of food, and social service agencies impacted by increased social needs, such as increases in domestic violence, which can be triggered by disagreements over food” (p. ii).

The OSU report reinforces why the pandemic-era Everyone Eats program necessarily had to be an integrated, inclusive program for *all* Vermonters facing food security while also supporting economic resilience and local food production. While there are some similarities to other disaster responses—like flooding, hurricanes, and storms—there are also some differences. An article on food distribution in New Orleans, LA

in response to Hurricane Ida in 2021 described how nonprofits, food retail, and city officials successfully ensured food access to most low-income and low-resourced communities (Singleton et al., 2022).

A huge difference between Hurricane Ida and the COVID-19 pandemic was the speed at which food assistance had to be mobilized during Ida. That speed also made it more challenging to collect data on the exact number of meals distributed. With that, it was also difficult to advertise for meal sites. As a result, the report’s authors recommended that, in future crises, emergency managers invest in accurate data reporting and communicating and advertising meal distribution site locations.

Analysis of Vermont Emergency Eats

The data and analysis were designed to focus on key information that could be useful to various decision makers across Vermont. Four interviews were completed with the following professionals to better understand the context and decision-making process:

1. Kathleen Devlin, Interim Executive Director at SEVCA;
2. Rosie (Mary) Krueger, State Director of Child Nutrition Programs at the Vermont Agency of Education (AOE);
3. Gary Holloway, Downtown Program Manager at the Agency of Commerce and Community Development (ACCD); and
4. Ben Rose, Recovery and Mitigation Section Chief for Vermont Emergency Management (VEM).

These interviews indicated the need for a holistic, systemic lens when designing the data collection methods. The interviews

also highlighted the facts that emergency management decisions are generally informed by multiple jurisdictions, from local to state and federal, and that while certain traditional economic metrics are important (for example, showing jobs retention and private dollars invested), state partners also value metrics demonstrating co-benefits (such as health, local food purchases, access, and equity). The interviewees also indicated a shared value for what is colloquially known as the “three-legged stool,” meaning there is an ongoing interest in supporting the multiple goals originally developed in Everyone Eats, linking economic resilience for restaurants, food security, and local food production.

SURVEY DESIGN

This research built on the findings from the Vermont Everyone Eats Economic Analysis published in May 2023 (Schuster

and Klieger, 2023). The initial analysis showed program benefits in four main areas: economic impact, investment outcomes, economic resilience outcomes, and community well-being outcomes. Thus, the team worked to embed those data collection methods into the design of Emergency Eats from the time it launched.

For this analysis, two surveys were conducted: an intake survey and an exit survey. Designed concurrently, the surveys were coordinated so that the information from both could be leveraged in this research. Participating restaurants were told when they enrolled that they would also be required to complete the exit survey within two weeks of the program ending. Restaurants were encouraged to fill out an online version of the survey; to increase accessibility, a paper survey or phone call were offered when preferred.



Image: VEE/SEVCA

Data and Survey Findings

The hypothesis going into this research was that since Everyone Eats lasted for over two and a half years, the magnitude of its impact would be greater when compared to Emergency Eats. The big question going into this analysis was this:

Would the shorter length of Emergency Eats mean there would be little to no quantifiable impact, or would there still be a significant quantifiable positive impact?

The findings from the data show a positive impact from Vermont Emergency Eats in all four areas: economic impact, investment outcomes, economic resilience outcomes, and community well-being outcomes. The strong multiplier effect from the program continued, with significant re-spending of program dollars on local supply chains and labor. Once again, the program did stimulate reinvestment of private dollars into equipment and infrastructure. For economic resilience, the program again kept restaurants open and helped them retain employees during a time of disruption. Finally, the program also saw a community benefit in supporting those experiencing food insecurity with healthy, culturally appropriate meals.

THE MULTIPLIER EFFECT

First, the team recalculated the multiplier effect, based on the same research that informed the original Vermont Everyone Eats economic analysis:

The researchers on this study opted to use the multiplier numbers provided in the Vermont-based Becot et al. (2016) paper to approximate the multiplier effect. That paper assessed past studies and found the multipliers to range from 1.4 to 2.6. This means that every dollar spent by the program resulted in \$0.40 to \$1.60 being spent within the community (Schuster and Klieger 2023, p. 14).

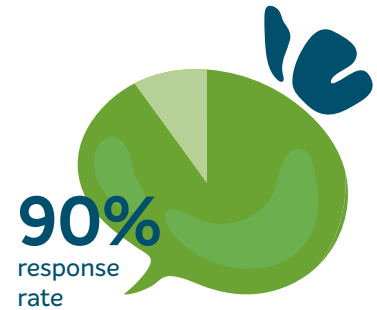
Because all participating restaurants were Vermont-owned and a significant percentage of meals were sourced from local ingredients, the multiplier selected was at the higher end of the range.

With total program spending close to \$700,000, the resulting economic multiplier was \$1.12 million. That means that beyond the program spending, an additional \$1.12 million was re-spent in Vermont's local economy on supplies and labor. The unique design of Emergency Eats allowed more dollars to stay local, resulting in a significant economic stimulus that benefited Vermonters during disaster recovery.

\$1.12 million
re-spent in Vermont's local economy on supplies and labor

RESULTS FROM INTAKE AND EXIT SURVEYS

A total of 30 restaurants and food businesses participated in the Emergency Eats program. There was a 90% response rate to the exit survey.



(27 responses, 30 participating food businesses)

Notably, 50% of participating restaurants were “startups,” meaning they opened within the past 5 years. This is important because restaurants are more likely to go out of business during their first five years of operations. As such, any support during a disruption—like the support available via Emergency Eats—is even more vital for these businesses.



About 70% of Emergency Eats restaurants had also participated in Everyone Eats. Engaging restaurants already experienced with this innovative program model was a strategic choice to minimize the learning curve for restaurants and allow for meal distribution to begin quickly.

Flood Impact and Investment Findings

Over 80% of the restaurants participating in Emergency Eats reportedly experienced some level of flood impact on their business. In an open-ended question, just over 40% of respondents reported that flooding also impacted their revenues through other indirect mechanisms, like canceled events. Additionally, 26% of participants reportedly experienced “flood damage to personal property that interfered with our ability to run our business.”

The bar graph below details the various impacts and damages restaurants typically report after flood events.

\$703,500
Total reported flood damage for participating restaurants.

With Everyone Eats, a total of \$49 million spent on 3.9 million meals motivated private investment in infrastructure and equipment. This was likely due to confidence that the market was active and growing, making the case that investing in restaurants was worthwhile. However, with Emergency Eats lasting only three months, would that be enough to motivate private reinvestment?

Types of impacts during the summer 2023 flooding



To answer to that question, the survey asked, **Did your participation in Vermont Emergency Eats motivate any new spending for your business on property, infrastructure, or equipment? Consider only purchases that were made since August 7, 2023. You may also include purchases that you will make within the next month if these purchases are definite.**

\$88,000
Total reported private spending re-invested in Vermont-Owned Businesses over 3 months.

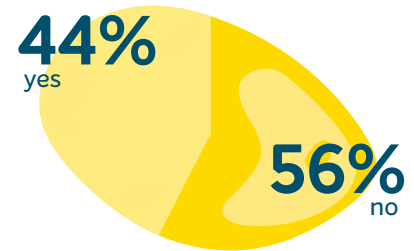
Given the short-term nature of the Emergency Eats program, \$88,000 in private reinvestment was impressive. About half of that investment was to repair items damaged by flooding while the other half went toward general improvements, independent of flood impacts. Investments covered a range of items, including (but not limited to):

- Kitchen equipment
- Freezers and refrigeration
- Water heaters
- Flooring
- Entryways
- Parking lots
- Generators

Economic Resilience Findings

Many of the responses to the open-ended questions stated the crucial role Emergency Eats played in keeping their business open in a time of disruption.

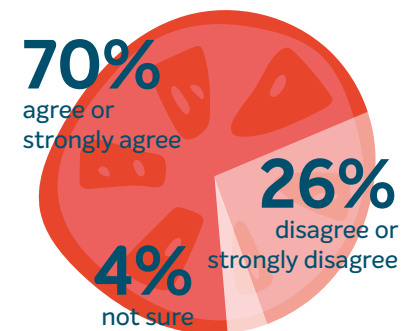
Were you able to retain or increase the number of employees as a direct result of your participation in Vermont Emergency Eats?



The program overlapped with summer and fall, which are typically busier months for restaurants. Had the program lasted through winter, the job retention numbers would likely be higher.

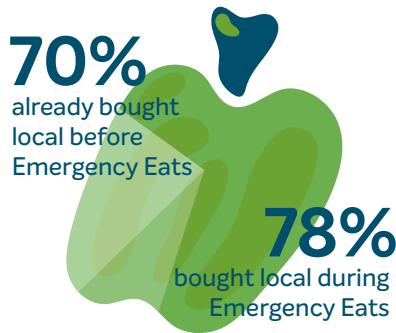
Please indicate the degree to which you agree/disagree with the following: Participation in the Vermont Emergency Eats program provided my restaurant with a critical revenue source between August 7 and November 4, 2023.

Almost three-quarters of respondents agreed that Vermont Emergency Eats provided a critical revenue source.



Findings on Local Food Purchases

While local food ingredients were not required, they were encouraged and tracked during Vermont Emergency Eats.



This means a small percentage of participants started purchasing locally sourced foods during Emergency Eats.

Did you have any challenges meeting the local foods component of the Vermont Emergency Eats program? Please explain.

- About 52% of respondents had no challenges meeting the local foods component.
- Only 7% of respondents had logistical issues sourcing local ingredients.
- Approximately 19% of respondents cited higher prices as a barrier to including local foods.

This finding was unexpected, as the hypothesis going into Emergency Eats was that flooding impacts for local farms and food producers would create more logistical issues and challenges sourcing local ingredients.

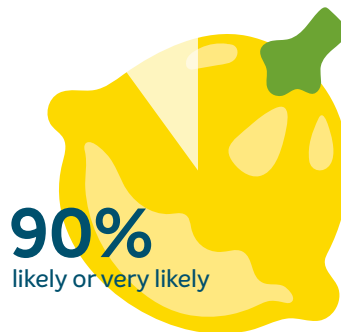
Findings on Community Benefits

The value of Everyone Eats had always been in the program's co-benefits. Thus, the research looked at various ways Emergency Eats could also support communities and community resilience.

When asked "Why did you join Vermont Emergency Eats?" 78% said their motivation was to provide food to those in need during a challenging time. This motivation ranked higher

than desires to retain current staff, expand a customer base, or stabilize revenues during a challenging time.

As previously noted, Emergency Eats successfully distributed over 49,000 meals. It also played a crucial role in Vermont's emergency response across the state. Still, it was essential to gain more context regarding restaurant emergency responses. To that end, the survey asked, **In a future emergency, what is the likelihood your restaurant would be able to mobilize to serve meals through Vermont Emergency Eats within 48 hours of a disaster?**



A small percentage of respondents indicated that the flood impacts made it difficult to implement Emergency Eats within 48 hours, with only three respondents reporting a lack of access to property, roads, or a generator as factors hindering their participation.

Other factors that could facilitate participation may include simple, small improvements regarding communication clarity; help spreading the word about meal distribution sites; clear operational processes for contracting, invoicing, and delivering meals; and to-go containers to support and simplify food delivery.

The flexibility in distribution channels for the meals was also a factor in accelerating program mobilization. There were six different ways in which restaurants distributed meals, and distribution methods varied based on local needs and conditions:

1. **Paper voucher system:** Organizations provided recipients with a paper

voucher or a set of vouchers redeemable for meals at multiple participating restaurants.

2. **Digital voucher system:** Recipients were certified through an online app to access digital vouchers redeemable for meals at participating restaurants.
3. **Open distribution:** An organization picked up bulk meals and distributed them at a scheduled walk-up or drive-up event.
4. **Closed distribution:** An organization picked up bulk meals and distributed them privately to existing clients.
5. **Individual delivery:** A driver or organization picked up bulk meals and delivered them to pre-scheduled recipients on a set route.
6. **Individual pickup:** The entire community was certified based on local conditions, and/or recipients self-certified in person at the restaurant when requesting and picking up a meal.

When the program launched, restaurants reported minor issues related to insufficient advertising and initial confusion about how the voucher system worked. Despite some early hiccups, Emergency Eats was deployed remarkably quickly, with restaurants mobilizing fast, making the program an effective tool to support community resilience during emergencies.

Most notably, one participant said, "If Vermont Emergency Eats had not happened, we would not still be in business." This was because they just opened a new branch in 2021, with a mission to help a community with a higher poverty rate than the surrounding area. "We wanted it to be a third space for communities." Without this program, they could not have survived while "we were just getting our feet under us." She added that she wishes that Vermont Emergency Eats would be ongoing, year-round, to support food insecure residents.



10 Lessons Learned for Future Disasters

SUCCESS OF THE PROGRAM

1

Vermont Emergency Eats successfully provided a safety net to food-insecure Vermonters and restaurant owners during a time of disruption.

There were several questions going into the launch of Emergency Eats. Would restaurants be able to mobilize fast enough? Would there be sufficient time to see any economic benefits?

The data shows that, overall, the program was a success. The cash flow helped restaurants retain employees and reinvest private dollars into their infrastructure and equipment. 93% of participating restaurants indicated they were likely or very likely able to mobilize for future emergencies within 48 hours. Based on this success, it is recommended that the program be activated again in future emergencies.

2

Including local restaurants and local foods means this emergency food security program has a benefit beyond its cost, which increases longer-term resilience for Vermonters.

Food security programs that are not highly integrated and collaborative do not have the same opportunity to build infrastructure and create positive change. Relying solely on foods grown and processed outside of the state would mean virtually no economic multiplier effect and no support for restaurants in a time of emergency. Not engaging local restaurants to produce meals during an emergency would be a missed opportunity to strengthen small businesses and benefit from the local relevance of their meals.

Typical disaster expenditures are tracked as an expense, but Emergency Eats' three-legged-stool model meant the disaster response could improve infrastructure and increase investment in a more resilient food system. Because Emergency Eats included support for restaurants and local food producers, it benefited Vermonters.

ACTIVATING AN EMERGENCY FOOD SECURITY PROGRAM

3

In the future, Vermont Emergency Eats needs to be prepared to activate faster. Systems, processes, relationships, and agreements need to be in place before the next emergency hits.

During emergencies like flood events, response speed matters. A speedy response is essential to ensuring that impacted residents are safe and quickly have access to needed food. During the July 2023 flooding emergency that resulted in the state's request for Everyone Eats to be reactivated as Emergency Eats, spending authorization and contracting took over three weeks to finalize. The unanticipated real-time adaptation of the pandemic program model into a smaller, shorter-term emergency program meant that hubs and restaurants were not

prepared for immediate activation. Consequently, meal distribution did not begin until over four weeks after the emergency was declared—that’s not fast enough for hungry, flood-impacted Vermonters.

Additional planning is needed to determine the best ways to quickly authorize funding to activate the program as soon as an emergency is declared; to ensure key contracts are already in place; and to connect and prepare the statewide network of hubs, restaurants, and community partners in advance, so they are ready when an emergency hits. Any systems, processes, agreements, and contracts that can be set up ahead of time will enable the program to be launched rapidly, ensuring an effective response.



To increase the resilience of Vermont’s food system, continuity and ongoing investment in resilience are necessary. Resilience will not be achieved by only investing during an emergency.

Proactive, ongoing emergency planning is more effective than a one-time emergency response that only happens during the emergency itself. More flood events and other disasters will happen in Vermont; it is simply a matter of when they occur. That has created a strong need for ongoing investment to improve resilience in Vermont, both in terms of agriculture and small businesses.

The infrastructure that was created during Everyone Eats is an asset. The hub network and community of practice embody a wealth of knowledge about how to get meals most effectively to those in need during a crisis. As the program administrator for both Everyone Eats and Emergency Eats, SEVCA possesses considerable institutional knowledge around the design and oversight of the program, as well as strong relationships constituting the statewide network of hubs, restaurants, and community partners. Continuing to invest in this infrastructure and knowledge will make it easier to reactivate Emergency Eats in the future.

Continuity is also important to increasing the economic resilience benefits. Restaurants and food producers are more likely to participate and spend private dollars on infrastructure and equipment if they have confidence that the program is likely to be reactivated in future emergencies.

IDENTIFYING NEED AND COLLECTING DATA



A strong system and process for key data collection throughout each reactivation needs to be established to address all program goals and measure impact.

Data collection (to measure meals served, equity and access, economic impact, etc.) needs to be built into each activation of the program from start to finish because it is imperative both to accurately capture the need and to track the program impact. This ensures equitable access to food while allowing for learning and adaptation.

The data tracking process used during Emergency Eats was effective. A similar mechanism should be replicated in future iterations of the program. The intake and exit surveys were a crucial source of information to show impact and areas of improvement for the program. With that, survey design was a key consideration too, with a focus on short and easy-to-complete questions to reduce the potential burden on participating restaurants.

BUILDING SYNERGIES WITH STATE EMERGENCY PLANS

6

Enhancing assessments of localized food security needs by building on existing emergency plan protocols will enable more effective state responses to these needs in future emergencies.

A process needs to be developed in partnership with local emergency managers to immediately and efficiently identify food security needs during and after an emergency. Care must be taken to not overlook needs, both in rural and urban areas where underrepresented groups can be missed.

Clear mechanisms to identify and report increases in food insecurity should be outlined in the state's emergency plan, and local emergency managers must be effectively educated and engaged in using those mechanisms to inform the state's quick response during an emergency. An effective integration of food security in state emergency planning also makes it more likely that a disaster-related food security response would be reimbursable by FEMA.

7

The needs around food security and the emergency response vary depending on the type of emergency (e.g., pandemic vs. flooding). More planning is needed to develop specific interventions for unique hazards that could impact food security in a variety of emergency situations.

Disaster response will vary by event, with distinct responses for blizzards, floods, pandemics, wildfires, and other types of disasters. Impacts may include power outages, a lack of safe drinking water, road blockages, building closures (e.g., homes, schools, businesses), communications disruptions, and other impacts to essential infrastructure. Another major factor could be whether residents stay in their homes or evacuate to temporary housing (e.g., hotels or shelters).

What could the biggest stumbling blocks be in the next disaster? What more can be done to develop emergency-specific solutions? What happens if all of the restaurants in a given county are unable to provide meals to those in need? More planning is needed to address the full range of scenarios, their potential impacts, and viable solutions.

LEVERAGING DIVERSE PROGRAMS AND COORDINATING IMPLEMENTATION PARTNERS

8

Further statewide planning and collaboration are needed to develop a process for effectively leveraging the full portfolio of federal, state, and local emergency food security programs available in Vermont.

Immediately after the 2023 flooding, neither agencies nor food security partners in Vermont were fully clear on roles and responsibilities regarding Vermonters' food security. Considerations should focus on how to leverage the full disaster response portfolio for food security, including when to activate which option, how to best sequence the options, and what the system will be moving forward to manage resource pairings and matchmakings.

In Vermont, the range of emergency food security programs also includes child nutrition and school-based programs; the Vermont Foodbank and many local food shelves; charitable and community meal assistance programs; and other federal, state, and local programs, including the USDA's The Emergency Food Assistance Program (TEFAP). Meals were provided to Vermonters in the first week or two after the flooding by World

Central Kitchen, the Red Cross, and the Salvation Army, but this was by no means a complete solution at that time.

Smaller, local nongovernmental organizations tend to be overlooked in these efforts; these players need to be considered in planning as well. Convening and strengthening a collaborative network of potential emergency food responders will ensure a more efficient, effective approach to meeting the needs of *all* food insecure Vermonters during emergencies.

IMPLEMENTATION THAT SUPPORTS LOCAL FOOD PRODUCERS AND RESTAURANTS

9

Locally sourced foods are not included in many food security programs, and this is a missed opportunity. Incorporating local foods and agriculture into emergency planning must happen proactively.

Including local foods in emergency food security programs leads to greater long-term food system resilience and economic impact for locally owned businesses. However, there can be challenges with accessing local foods during an emergency.

Developing a plan that removes barriers for restaurants and others in accessing local foods is key. For instance, some participating restaurants requested a list of sources for buying local foods. A small percentage of participating restaurants cited the cost of local foods as a barrier, so identifying more cost-effective options is advised. To ensure equitable access for restaurant participation—so even very small restaurants can be involved—consider implementing subsidies for using local ingredients. Surprisingly, accessing local foods was not usually an issue with Emergency Eats. Mandating the use of local foods in future iterations of the program, as in Everyone Eats, will help increase the multiplier effect and the lasting economic impacts on farmers and food producers.

10

A balance needs to be achieved between equity in the selection of participating restaurants and capitalizing on the competitive nature of the selection process.

The number of restaurants that wanted to participate in Emergency Eats exceeded the program limits for this emergency. This need for balance in restaurant selection is both a challenge and an opportunity. On the one hand, it is important to maintain a fair, transparent restaurant selection process for each emergency response. The program is an economic benefit to restaurants; as such, it is important to have an open process that allows new restaurants to enroll.

On the other hand, maintaining certain eligibility criteria for restaurants is also critical. For example, selection criteria should ensure that communities have options that meet their dietary and cultural needs while offering geographically distributed locations aligned with the highest concentration of need.

Furthermore, given the high demand for the program, bringing back a local food requirement could facilitate the restaurant selection process when the number of applicants exceeds the program limits. Finally, participating restaurants need to be able to meet the administrative requirements of the program, such as timely data reporting and invoicing, in order to keep program administration costs as low as possible.

Next Steps and Conclusion



INCORPORATING LOCAL FOODS INTO EMERGENCY PLANNING

Agricultural resilience is important to Vermonters but hard to achieve with climate change, labor challenges, and fierce competition from outside of the region. Still, the co-benefits of supporting local foods and local farmers are significant. Incorporating local foods into emergency planning leads to additional long-term economic and community resilience benefits that would not occur if all foods were imported from out-of-state.

A key advantage is that local food purchases have a strong economic multiplier effect, meaning that dollars spent during emergencies get recirculated through the community. Typically, disasters are thought to be destructive, with negative outcomes.

However, when local foods and agriculture are incorporated into emergency planning, emergencies become an opportunity to increase the resilience of the food system and strengthen the local food economy.

Turning a disaster into an opportunity is not easy. There are real barriers that limit access to locally produced foods during emergencies. Heavy rains can damage crops, sitting water can prevent harvest and keep heavy equipment from entering the fields, and hotter temperatures can harm livestock. These are all challenges that Vermont producers continue to contend with.

The July 2023 floods hit Vermont in the middle of the agricultural production season. According to a food producer survey, over 27,000 acres were impacted. Forty percent experienced crop loss for the feed market, and 34% experienced crop loss for wholesale and retail markets (Vermont Agency of Agriculture, 2023). This reduced agricultural products from Vermont producers while raising concerns about harvesting crops from potentially contaminated fields, further reducing local food availability.

Vermont Emergency Eats did not have a local food requirement, and many suppliers of local foods were negatively impacted by the floods. Yet, restaurants still reported that 25% of the ingredients used in Emergency Eats meals were locally sourced. This indicates that purchasing local food is not a program barrier for restaurants. Additionally, some emergencies may be localized and not negatively impact the ability to source local foods at the state level. As a result, continued inclusion of local agriculture as one of the three essential program pillars is critical to the program's impact.

Although local food inclusion levels were below the 36% seen during Everyone Eats, inclusion of local food was voluntary during Emergency Eats, and it still far surpassed the original program's 10% requirement. In this iteration, restaurants were required to report local food purchases, which might have prompted them to increase their purchases. Plus, since local food was required in the

first program, the recency bias might have increased purchases the second time around. We know many restaurants created a habit of purchasing local ingredients to participate in Everyone Eats and that habit may have continued through Emergency Eats. So, over time, if local food is not a program requirement, the inclusion rate may drop further.

FUTURE ACTIONS

The *Vermont Atlas of Disaster* made the case that given the trend from 2011 to 2021, Vermont is at a higher risk of emergencies than other states and, therefore, needs to invest more in resilient infrastructure while supporting greater coordination across disaster relief agencies (McCallum, 2023). As such, more planning is needed to be ready for repeated and consistent reactivation of the Vermont Emergency Eats program during emergencies impacting food security. Next steps include:

- State and nonprofit partners should develop a collaborative process for better leveraging the full portfolio of food security options in disasters; coordinating federal, state, and local efforts; and ensuring a diversified, balanced mix of federal, state, local, private, and philanthropic funding.
- State agencies should develop a reimagined hazard mitigation plan for Vermont that fully integrates food security and includes a stronger mechanism for local emergency needs reporting.
- Scenario planning should be employed to understand a wider range of impacts that might result from a variety of disasters and to identify what the desired state response(s) should be, particularly regarding food security. Planning should focus on answering this question—What policies might need to evolve to support the desired outcome?
- A state entity should be granted the responsibility to activate Vermont Emergency Eats and authorize rapid response funding to quickly begin meal distribution when a widespread emergency impacts Vermonters' food security.
- Ongoing investment should be made in the development and maintenance of Vermont Emergency Eats program infrastructure and network so that the program administrator, hubs, restaurants, and community partners are prepared and capable of activating rapidly when an emergency warrants program activation.
- Future activations of the Vermont Emergency Eats program should continue to involve all three legs of the three-legged stool: addressing food insecurity, strengthening local restaurants, and reinforcing local food resilience. The long-lasting economic impact of the

multiplier effect depends on this three-legged model and is an essential factor in the value of this program.

- Encouraging restaurants to purchase local food is advised, both during emergencies and on an ongoing basis. Creative, incentive-based mechanisms should be explored primarily, though subsidies may be considered in certain cases to help very small restaurants overcome barriers.

CONCLUSION

Vermont Emergency Eats was a success by multiple performance indicators. The severity of the flood impacts left many residents without access to potable drinking water and electricity, and many were displaced. There was a strong need for prepared meals, and Emergency Eats distributed over 49,000 meals to those hardest hit by the flooding.

The data shows that participating restaurants sustained just over \$700,000 in damage from the 2023 flood events, indicating a clear need to support the recovery and resilience of Vermont-owned restaurants. Not only did Emergency Eats serve as a critical revenue source for restaurants during the emergency, but these businesses also leveraged the cash flow from the program to invest private dollars in the repair and improvement of equipment and infrastructure. In addition, participating restaurants reported 25% of meal ingredients were sourced locally, contributing to the economic multiplier of \$1.12 million. Those dollars stay in Vermont and are recirculated in the local economy.

Vermonters will benefit from the program's future reactivation in emergencies that impact food security. With an innovative, integrated, collaborative model, the program successfully brings in federal funds while maintaining a flexible, local connection through its hubs. Restaurants play a key role in the program, given their unique importance to the rural fabric of Vermont and their ability to mobilize quickly. Agriculture and local foods are also a foundational element of the program, and they are critical not only in Vermont but also in the global effort to integrate agricultural resilience and food security.

However, it is important to note that the significant economic resilience benefits for Vermont-owned restaurants and food producers will only be present with continuity. The economic benefits are significantly higher when Vermont-based businesses have confidence that Vermont Emergency Eats will be deployed in future emergencies. Therefore, it is advised that a plan be established to activate Vermont Emergency Eats in future emergencies where there is a need for restaurant-prepared meals.

References

- Schuster, E. and Klieger, M. (2023). Vermont Everyone Eats economic analysis: VEE's dual investment in the local food economy and food security for Vermonters. *Sustainable Economies Consulting*. Retrieved November 29, 2023, from <https://sustainableeconomiesconsulting.com/sec-projects/economic-impact-assessment-of-vermont-everyone-eats/>.
- Banacos, P. (2023, August 5). Great Vermont Flood of 10–11 July 2023: Preliminary Meteorological Summary. *National Weather Service*. Retrieved December 4, 2023, from <https://www.weather.gov/btv/The-Great-Vermont-Flood-of-10-11-July-2023-Preliminary-Meteorological-Summary#:~:text=There%20were%20three%20primary%20meteorological.5>.
- Petenko, E. (2023, October 26). FEMA distributes \$22 million in individual aid as application deadline approaches. *VTDigger*. Retrieved November 4, 2023, from <https://vtdigger.org/2023/10/26/fema-distributes-22-million-in-individual-aid-as-application-deadline-approaches/>.
- Vermont Agency of Agriculture, Food & Markets (2023). Severe Weather and Flooding Loss & Damage Survey Results. *Vermont.gov. Survey Results Report*. Retrieved November 4, 2023, from <https://agriculture.vermont.gov/sites/agriculture/files/documents/Flood%20Survey%20Results%20Report%202023.pdf>.
- What is the failure rate for US restaurants? (2021, July). *FoodIndustry.com*. Retrieved November 29, 2023, from <https://www.foodindustry.com/articles/what-is-the-failure-rate-for-us-restaurants/#:~:text=The%20National%20Restaurant%20Association%20estimate%20that%20a%2030%25,year%2C%20and%2080%25%20go%20under%20in%20five%20years>.
- Why are restaurants important to local economies. (2021, January 26). *MultiteriaUSA.com*. Retrieved November 29, 2023, from <https://www.multiteriausa.com/blog/why-restaurants-are-important-to-local-economies/#The%20Supply%20Chain>.
- National Restaurant Association. (2022, March). "Restaurant owner demographics Data Brief – March 2022." *Restaurant.com*, National Restaurant Association. Retrieved November 29, 2023, from <https://restaurant.org/getmedia/ad96e3a8-4fb1-492d-a5ae-0b3dd53a61ef/nra-data-brief-restaurant-owner-demographics-march-2022.pdf>.
- Southeastern Vermont Community Action, SEVCA (2023). VEE Meal Eligibility. *Vermont Emergency Eats*. Retrieved November 29, 2023, from <https://vtemergencyeats.org/who-qualifies>.
- Paulsen, Rein. "Opinion: Investing in agriculture in emergencies is a game-changer." *Devex.com*, July 31, 2023. Retrieved November 29, 2023, from <https://www-devex-com.cdn.ampproject.org/c/s/www.devex.com/news/opinion-investing-in-agriculture-in-emergencies-is-a-game-changer-105710/amp>.
- Bertini, C., and Cousin, E. (2021). Centering Global Food Security for Global Prosperity. Chicago Council on Global Affairs. *JSTOR*. Retrieved November 28, 2023, from <http://www.jstor.org/stable/resrep29697>.
- Sova, C., et. al. (2019). Climate Change and Food Security: A Test of U.S. Leadership in a Fragile World. Center for Strategic and International Studies (CSIS). *JSTOR*. Retrieved November 28, 2023, from <http://www.jstor.org/stable/resrep22593>.
- Sonnino, R. (2016, June). The new geography of food security: exploring the potential of urban food strategies. *JSTOR, Vol. 182, No. 2*, pp. 190–200. Retrieved November 29, 2023, from <https://www.jstor.org/stable/43868699>.
- U.S. Department of Agriculture (2021). USDA Foods in Disasters Manual June 2021. *USDA Technical guide*. Retrieved November 29, 2023, from <https://www.fns.usda.gov/usda-foods/program-disaster-manual>.
- Sledge D. and Thomas H.F. (2019, March). From Disaster Response to Community Recovery: Nongovernmental Entities, Government, and Public Health. *Am J Public Health*. 2019 Mar; 109(3):437–444. doi: 10.2105/AJPH.2018.304895. Epub 2019 Jan 24. PMID: 30676804; PMCID: PMC6366522.
- Inwood, S., Plakias, Z., Clark, J.K., Wright, N., Irish, A., and Vittie, J.D. (2022). Preparing for Food System Resiliency in Ohio: Policy and Planning Lessons from COVID-19. *College of Food, Agricultural and Environmental Sciences & John Glenn College of Public Affairs, Technical Report*. Ohio State University.
- Singleton, C.R. et al. (2022, September 7). Emergency food distribution efforts in New Orleans, LA after Hurricane Ida. *Frontiers in Public Health*, Vol. 10, pp. 1–9. Retrieved November 29, 2023, from <https://www.frontiersin.org/articles/10.3389/fpubh.2022.968552/full#:~:text=There%20were%20at%20least%2074,aid%20response%20in%20New%20Orleans>.
- McCallum, K. (2023, August 3). Report Catalogs Vermont's Growing Litany of Disasters – *Vermont Atlas of Disaster*. Seven Days Vermont. *Vermont Atlas of Disaster, by ReBuild by Design*. Retrieved November 29, 2023, from <https://www.sevendaysvt.com/news/report-catalogues-vermonts-growing-litany-of-disasters-38807021>.



Contact information

Elizabeth Schuster
Agricultural Economist

Sustainable Economies Consulting

Email: eschuster@sustainableeconomiesconsulting.com

Michelle Klieger
Agricultural Economist

Helianth Partners

Email: michelle@helianthpartners.com