

Senator George J. Mitchell Center for Sustainability Solutions

Unlocking the Economic, Social, and Environmental Benefits of Using Surplus Food in Maine



**Food Rescue
MAINE**

Context and Strategy of the Research

Context of the Research

- Food waste AND food insecurity in Maine

Research Strategy

- Involving key stakeholders in research design and with Interviews and participant observation
- Review of international best practices, challenges & opportunities

Four Principles

- **Educate**
- **Share**
- **Diversify**
- **Inquire**



Educate, Share

Educate

- Individuals on using proper language: “good, edible food”, not “trash”
- Individuals on expiration dates : “look, smell, taste”
- Individual donors on the fact that “money gets more food”
- Businesses on the advantages of donating food: savings, public image, efficiency
- Grocery store brands on donation protocols

Share

- Collaboration initiatives between agencies
 - “One agency’s trash is another agency’s treasure”
 - Share resources (kitchen equipment, transports)
 - Pool funds to acquire resources, equipment, etc.
- Harness public/community infrastructures



Diversify, Inquire

Diversify Income Streams

- Social entrepreneurship
 - Second hand sales
 - Collect and redeem plastic bottles donated by community
 - Lend space
- Private/corporate fundraising
 - Branding and media visibility
 - Offer corporate advertisement spaces
 - Build relationships with donors



Inquire

- Who uses the food pantry
- What do they/can they eat
- When are they looking to access food
- Where are they located
- ... In order to adapt service offer



Much more info in
the full report,
available soon at
<https://umaine.edu/foodrescuemaine>

**UNLOCKING THE ECONOMIC, SOCIAL, AND
ENVIRONMENTAL BENEFITS OF USING SURPLUS FOOD IN
MAINE**



A Qualitative Survey of Challenges and Opportunities for Redistributing
Maine's Food Surplus Into the Charitable Food System

2025

Maine Food Waste Solutions Summit



Celebrating **Food Waste Prevention Week** April 7-13, 2025

Maine Food Waste Solutions Summit

Economic Analysis of Maine Municipal Food Waste and MSW from 2021-2023

Megan Sauberlich
Advisor Travis Blackmer



Maine Food – Too Good To Waste

Maine Food Waste Solutions Summit

Project Objective and Strategies

Solution 6: Divert Food From Landfills

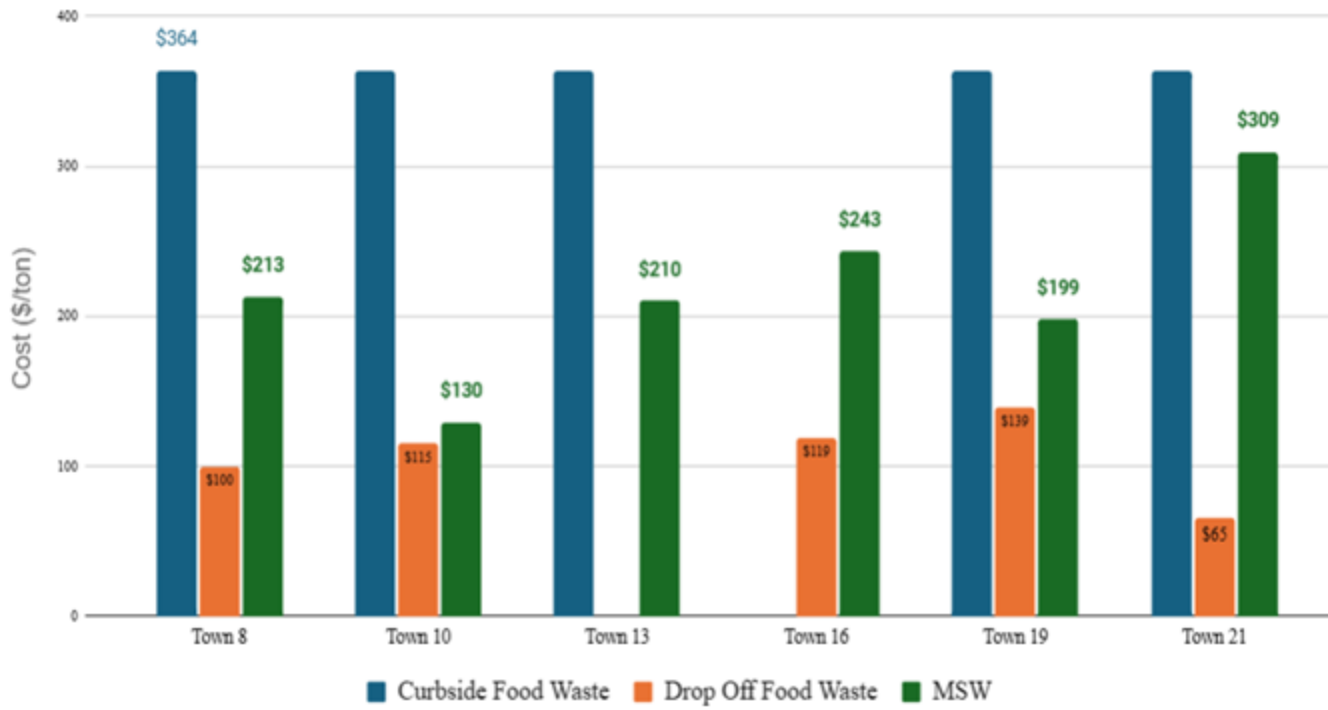
Goal: Collect and analyze to identify best economic practices for waste management

Overview:

1. Questionnaire on drop off food waste, MSW, recycling --- 13 towns
2. Curbside food waste data from service providers (Thank you)
3. Follow-up meetings with towns

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FW v. MSW Cost per Ton Comparison

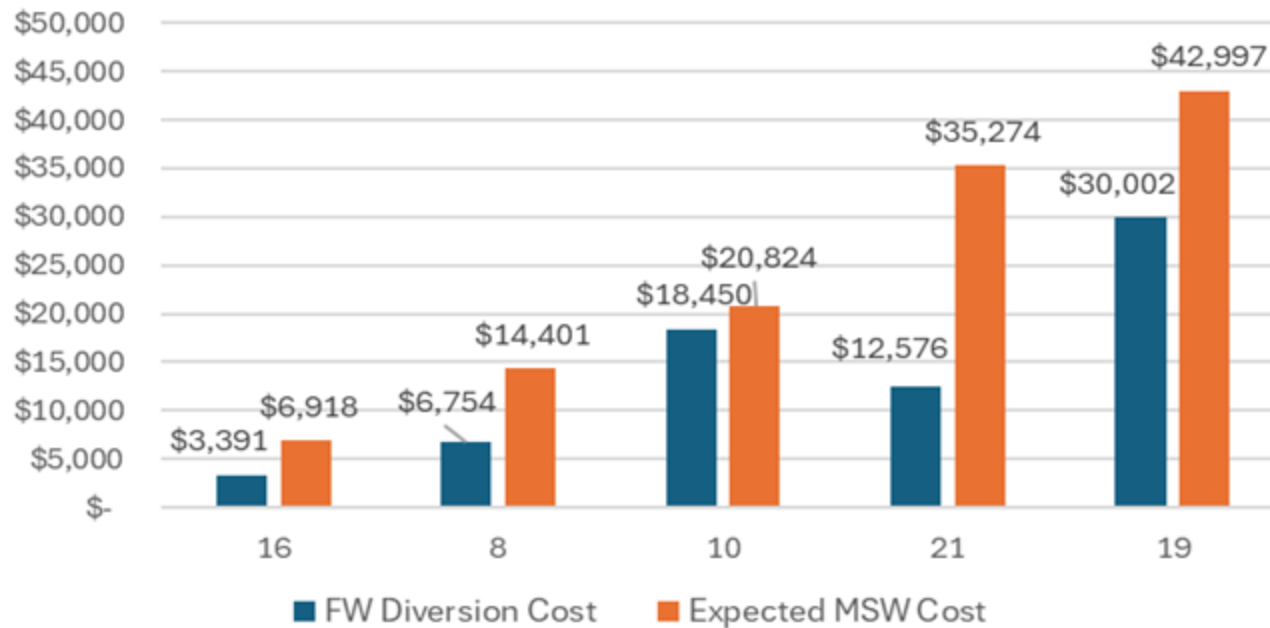


Takeaways:

- Curbside is more expensive
- Residents pay \$350/ton to divert FW
- High Willingness to Pay= strong interest in food diversion
- Towns can meet this interest at **lower cost** through drop-off programs [cheaper than MSW]

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Town Reported Food Waste Diversion Costs v. Cost If MSW



Takeaways:

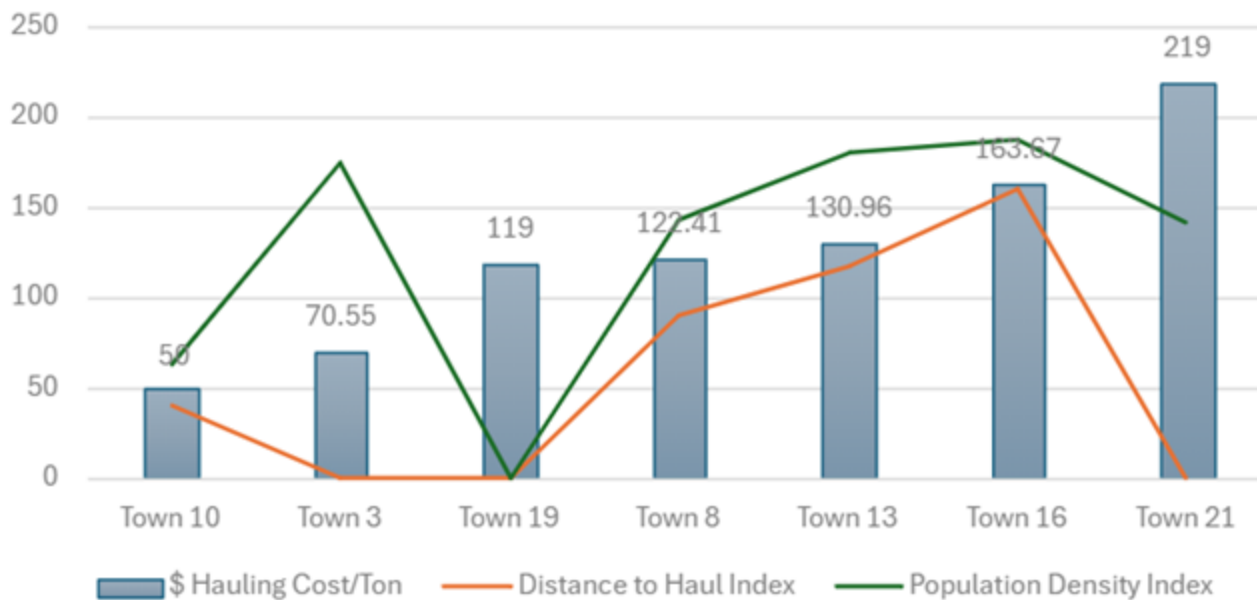
- Towns are saving money by diverting their food waste
- On average diverting food waste was 43% cheaper
- The highest savings was 64%
- Town 21 would have spent \$23k more without their food waste program

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Takeaways:

- Towns experience varied hauling costs/ton
- Some explanation based on Population Density and Distance
- Rising % of total MSW Costs

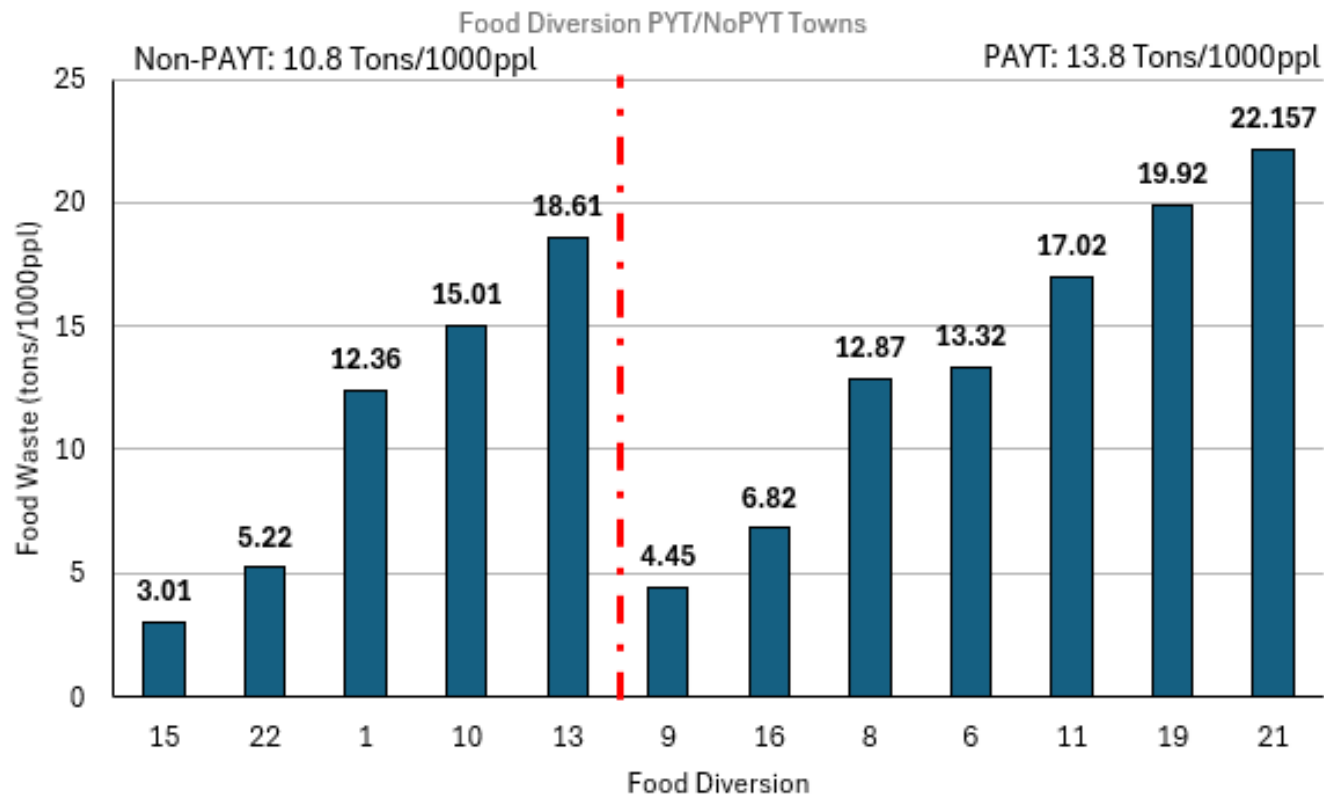
Town Reported MSW Haul Cost (\$/ton) v. Population Density and Distance-to-Haul



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Pay As You Throw (PAYT): a unit based pricing program where residents pay directly for how much they're throwing away

Does this work as an incentive to divert food as well as reduce waste?



Towns with PAYT program are diverting food waste from landfills more.

An average of 3 tons (6000 pounds) more for every 1000 ppl

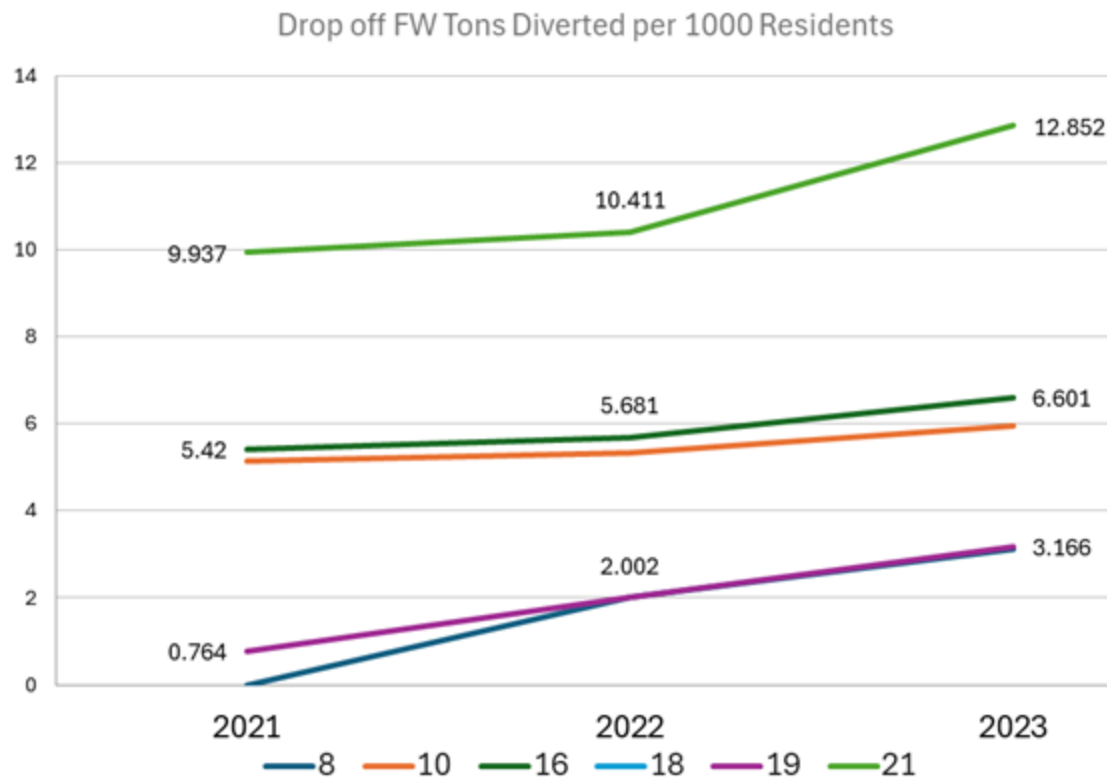
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Town 21- Highest Food Waste Diversion

12.85 tons/1000 ppl

**Rising participation
in sustainable practices
with realized cost-savings**



28% in two years

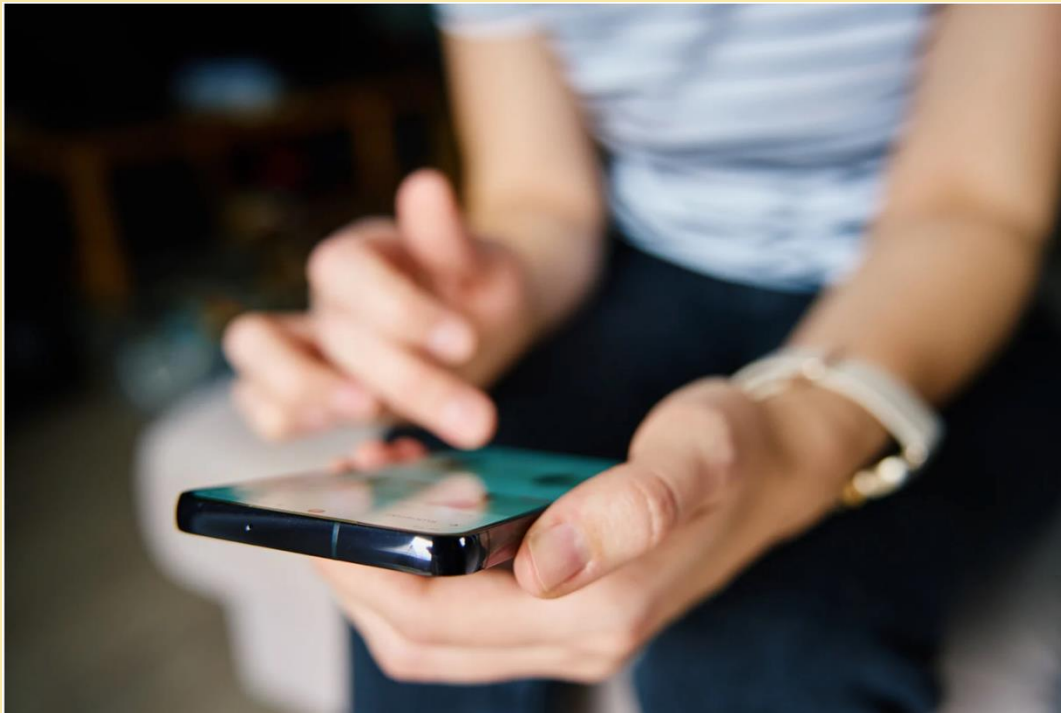
33% in two years

314% in two years

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Communication & Education

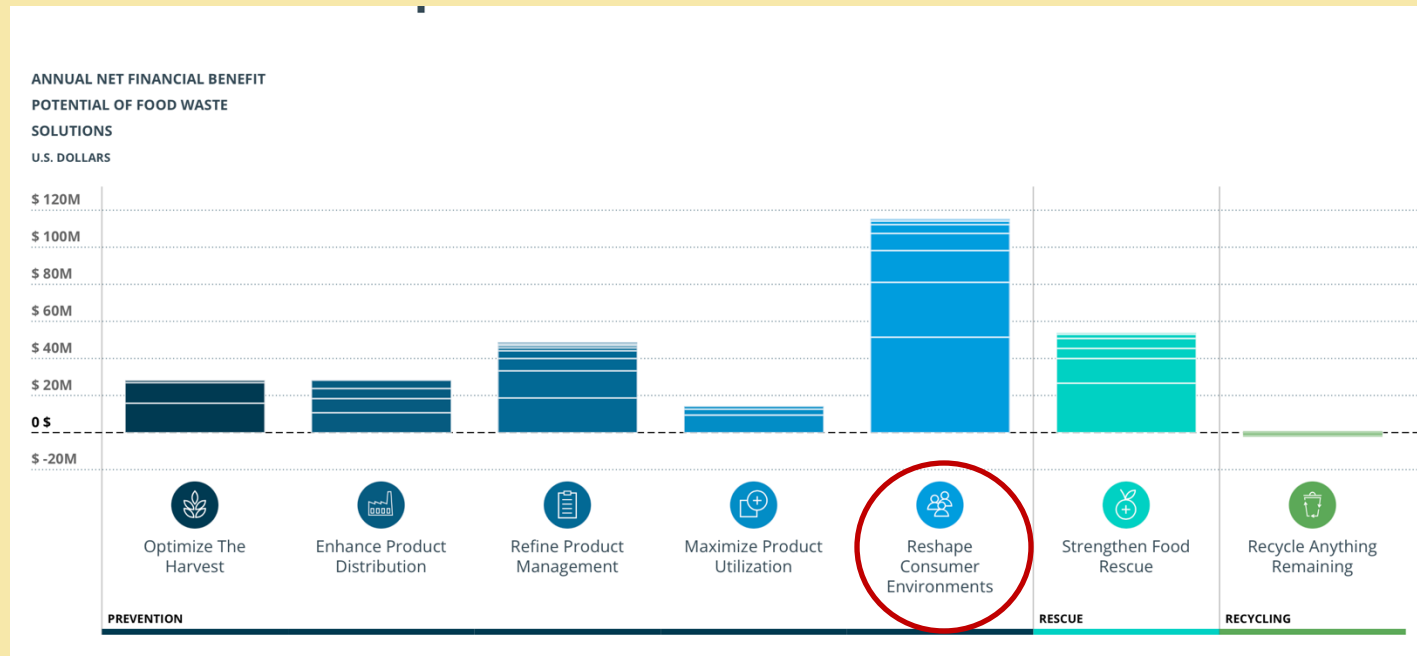
Food Rescue MAINE Education & Communication



Kathryn Busko

Communication & Education

Why Communication and Education?



- Maine could save almost **\$120 million/year** by changing consumer behavior (ReFED)
- Households could save **\$3,000/year** (EPA)

Communication & Education

Project Goal: Increase Wasted Food Education Outreach in Maine

Strategies:

- **Increase Social Media Activity**
- **Upgrade Food Rescue MAINE's Website**



Communication & Education

What did we do? Social Media



Holiday Posting



Reels



Stakeholder Collaboration

Communication & Education

Results

778.5%

increase in Instagram Reach as compared to the same time period last year (May – April)



Instagram Reach May 2024 – April 2025 vs.
May 2023– April 2024 (+ **778.5% this year**)

Communication & Education

Most Viewed Posts



Views: 4,185



Views: 3,053



Views: 3,160

Communication & Education

What did we do? Website



MITCHELL CENTER FOR SUSTAINABILITY SOLUTIONS

Search...



Home

About Us

Why Stop Food Waste?

Our Six Solutions

How Can YOU Help?

Media

FAQs

Blog

Contact Us

FOOD RESCUE MAINE

Providing stakeholders with sustainable “triple bottom line” solutions — delivering consistent economic, social, and environmental benefits — to end wasted food and food loss in Maine.



<https://umaine.edu/foodrescuemaine/>

Maine Food – Too Good To Waste

Communication & Education

Website Resources

MAINE FOOD LOSS AND WASTE GENERATION STUDY

The 2024 Maine Food Loss and Waste Generation Study was a collaborative, statewide effort to assess food loss and waste by sector. Forty percent of the food we produce is never eaten which amounts to 360,000 tons of food loss.

Here are some more of the key findings:

- ✓ 35% of food produced in Maine is never eaten
- ✓ Maine wastes or loses about 361,000 tons of food annually
- ✓ Maine households are the largest contributors to wasted food (129,598 tons annually)
- ✓ Grocery stores and food manufacturers are major contributors, wasting a combined total of 78,558 tons annually
- ✓ Seasonal tourism has a notable impact on food waste generation

[READ THE STUDY \(PDF\)](#)



Maine Food Loss and Waste Generation Study

Week	Week 1	Week 2	Week 3	Week 4
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				
Food Waste Total				
Notes				

FRM's Home Food Waste Tracker

And More!

[Click the images below to learn more:](#)



Community Food Waste Proposal Presentation Template

Want to propose food waste diversion to your community but don't know where to start? Click here for our customizable presentation template



Community Education and Outreach Portfolio

Click here to see the educational materials that our pilot communities have customized



Community Startup Guide

Click here to find everything you need to get your community food recycling program started



Food Recycling Providers in Maine

Click here for a list of the food recycling organizations available in your area

Community Wasted Food Reduction

Maine Food Waste Solution Summits

Maine's annual conference to discuss the cutting edge of food waste resource and solutions.

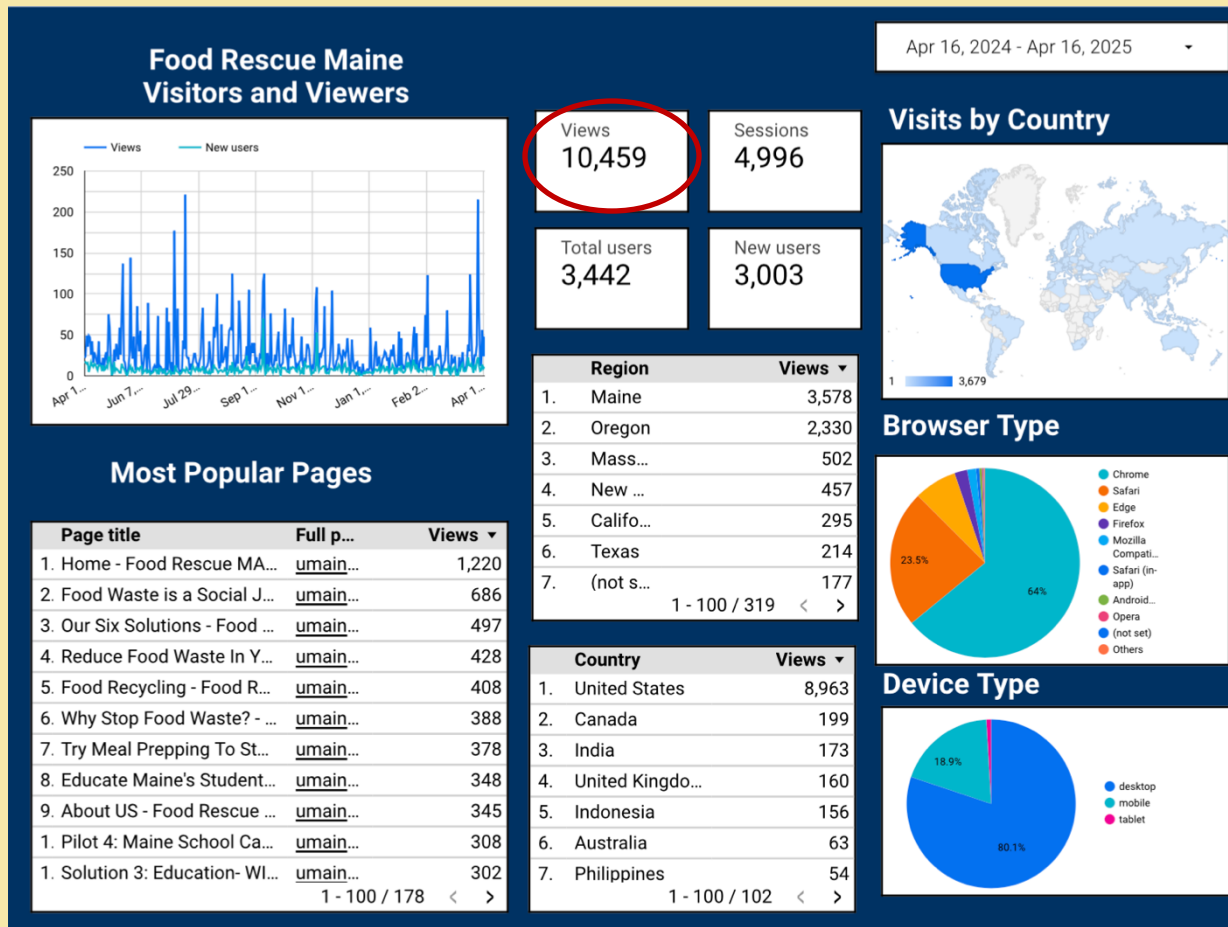


Our Summits

Maine Food – Too Good To Waste

Communication & Education

Results



- **10,459 views** (April 2024-April 2025)
- **23% increase in views** (compared to April 2023-April 2024)
- **11% increase in new users** (compared to April 2023-April 2024)

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2025 Maine School Cafeteria Wasted Food Study

“No More Wasted Food Challenge”

William Brenneman



Study Overview

The Study: Work with Maine schools to implement proven interventions to reduce wasted food and improve student nutrition.

The Interventions:

- Sorting stations
- Share Carts
- Reusables
- Education
- And more...

The Schools:



★ Easton Elementary (Easton)

★ P.W. Sugg Middle School (Lisbon Falls)

★ Sherwood Heights Elementary (Auburn)

★ Brown Elementary (South Portland)



Photo credit: Gracie Treadwell
*Food Rescue Heroes help with sorting
at Brown Elementary, South Portland*

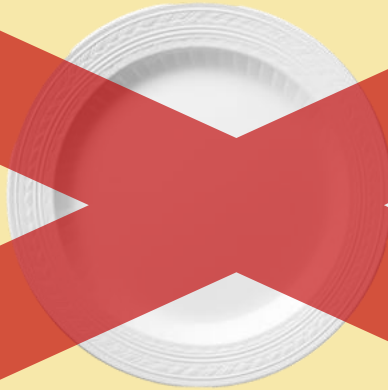
Study Interventions

Install Sorting Stations



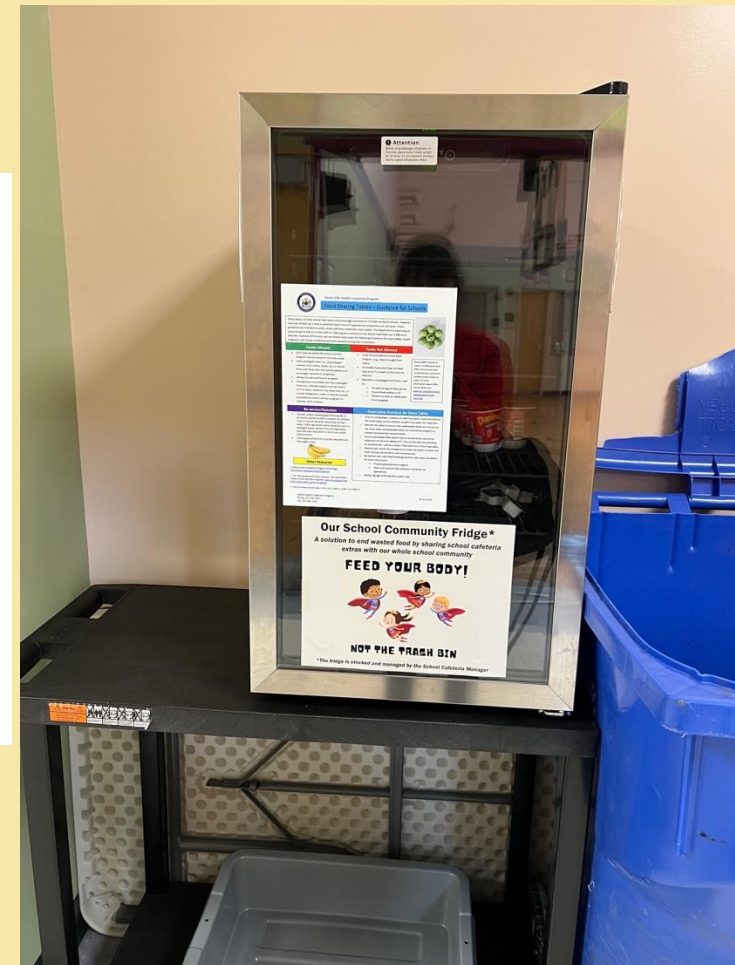
Study Interventions

Switch to Reusables



Study Interventions

Add Share Basket + Community Fridge



Study Interventions

Educational Assembly, Posters, Follow-up Videos



School Food Waste Assembly

**How Can YOU Help
Stop Food Waste?**



No Food in Landfills!

Connect to Compost Service or Farmers



Study Data Key

- **Note:** results are preliminary; we are still waiting on more data and are continuing to analyze data. As such, these results are incomplete. We will have more to share in the coming weeks!
- **“Wasted Food”***: student-generated cafeteria food waste (non-Kitchen waste)
- **“Baseline Weeks”**: represents wasted food pre-Study interventions, **
- **“Wasted Food per 100 Students Served (SS)”**: Study metric:
 - ✓ *Average quantity of wasted food produced with each lunch meal served*
 - ✓ *Eliminates effect of school size*
 - ✓ *Allows comparison of all Maine schools*
 - ✓ *Eliminates impact of missed school days or other disruptions to weekly data*

Quantitative Results: Overview

Wasted Food Totals:

Across Study (prelim.): 20.92 lbs/100 SS

Baseline: 20.95 lbs/100 SS

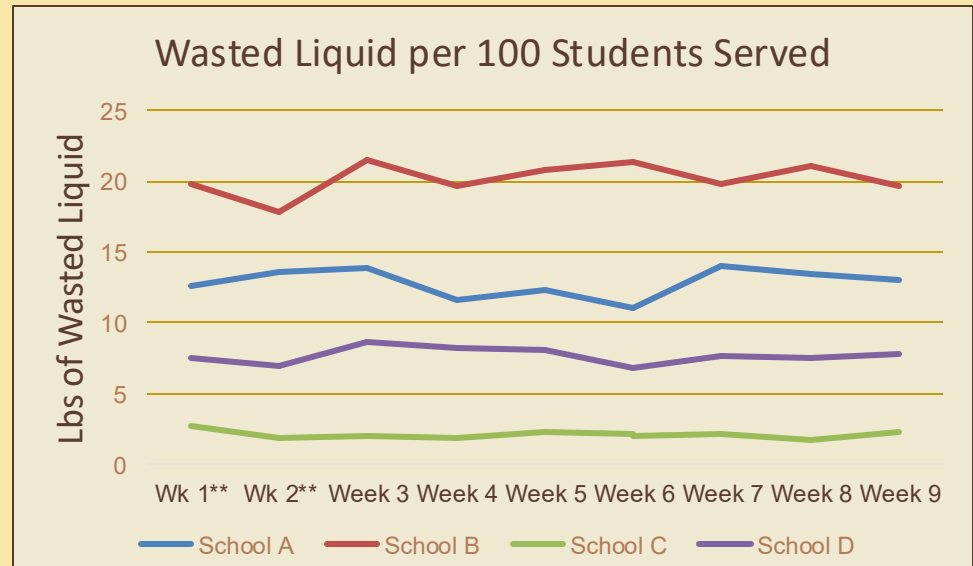
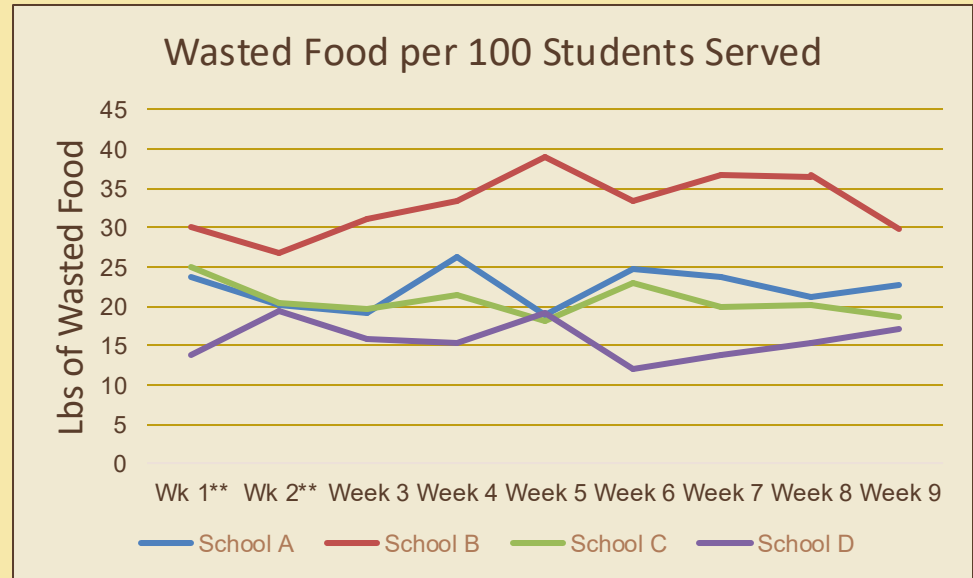
Post-Interventions: 20.91 lbs/100 SS

Wasted Liquid Totals:

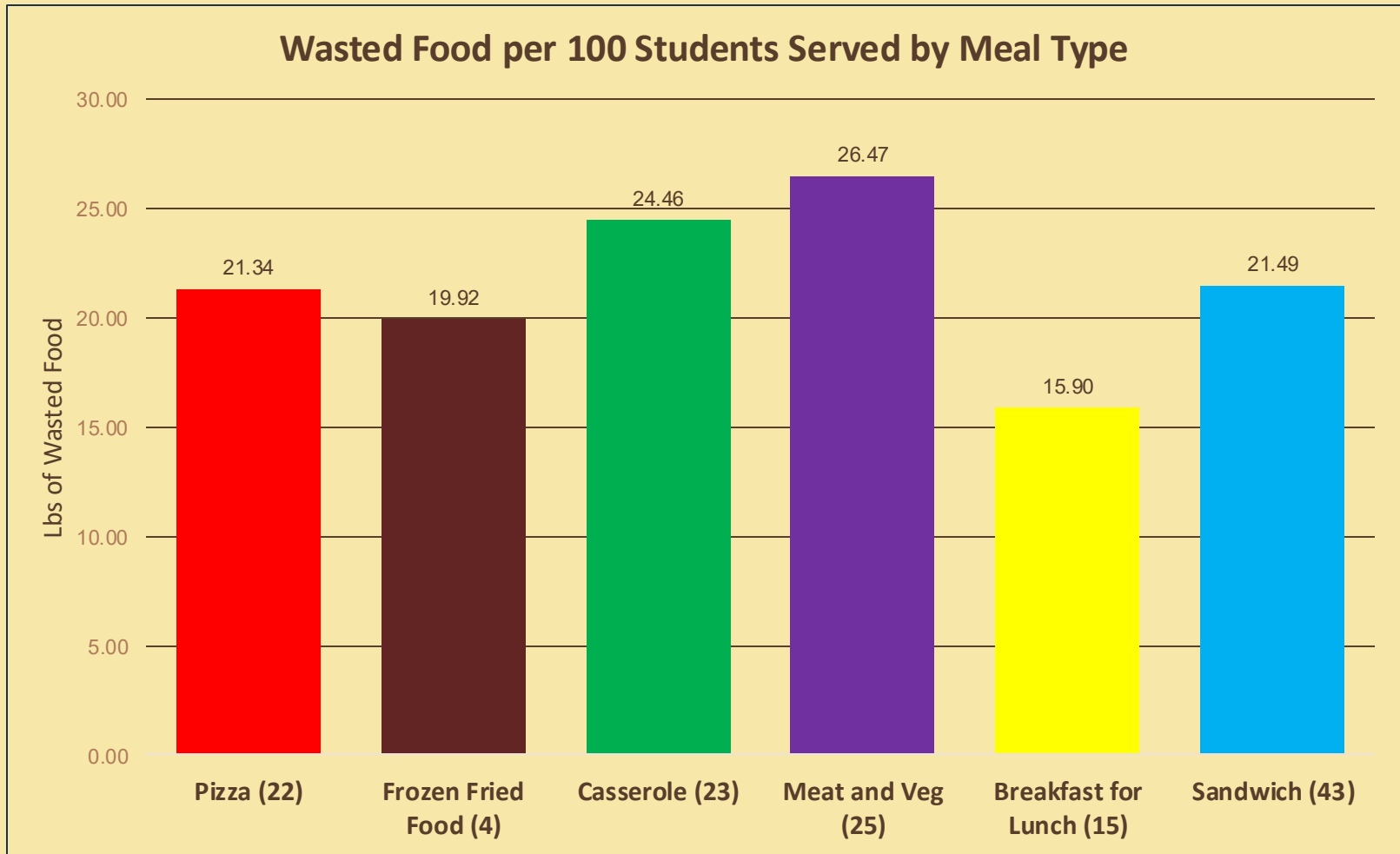
Across Study (prelim.): 8.84 lbs/100 SS

Baseline: 8.74 lbs/100 SS

Post-Interventions: 8.87 lbs/100 SS



Quantitative Results: By Meal Type



Nutrition Impact: Food Waste Audit

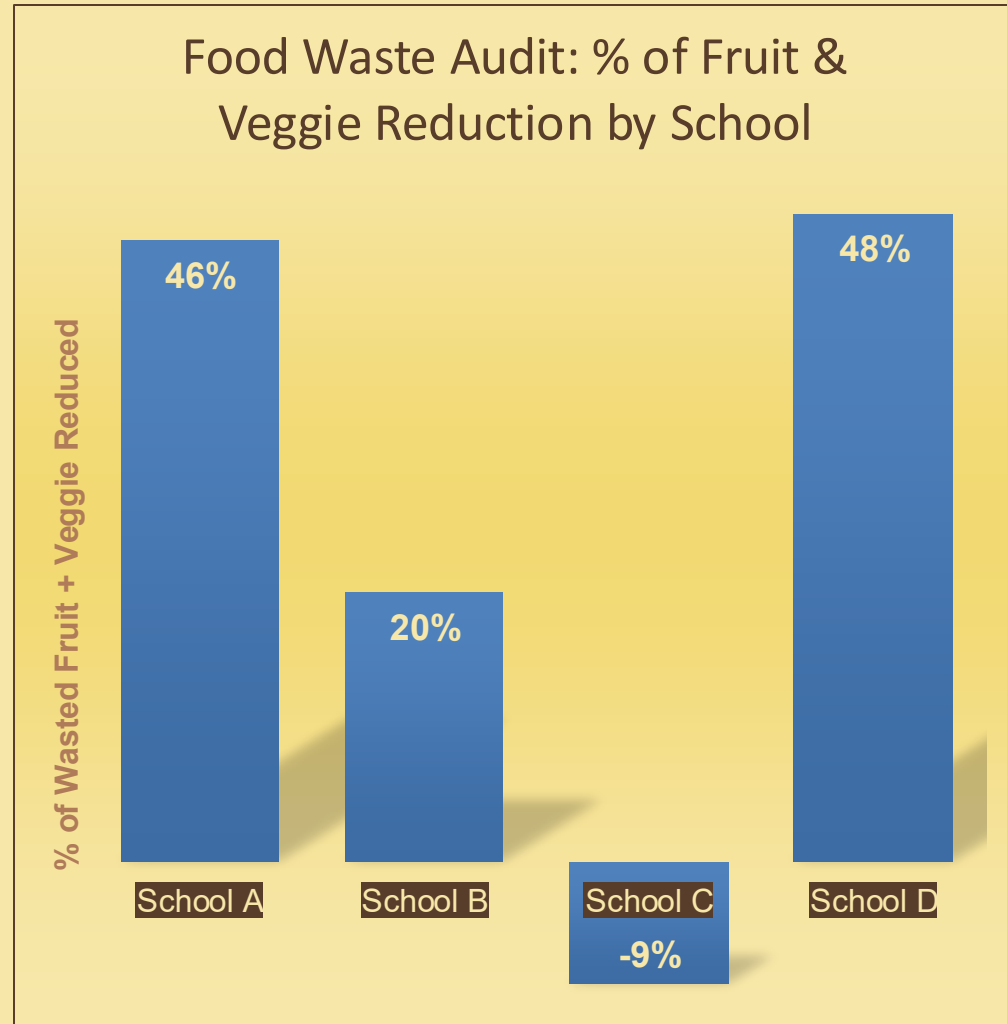
Wasted Food Audit:

- Selected repeated meals pre-interventions and in final study week
- Sorted waste by entrée offerings, fruits, veggies, liquids

Avg. change in Wasted Fruit: - 45%

Wasted Veggies: - 4%

Total Wasted Fruit & Vegetable Reduction: - 28%



Qualitative Data: Stakeholder Interviews

Overview

- Over 20 interviews with staff, faculty, principals, and students
- UMaine Communications worked with New Media student Grace Treadwell, to generate publicity for our School Study - garnered great media interest in student efforts to cut wasted food!



Did you catch our media spots on local news??

Qualitative Data: Stakeholder Interviews

Why is food wasted at your school?

“At this age group [elementary], they’re just taking whatever without thinking about what they’re going to eat. I’ve seen this a lot... And there could be a time component. They have X amount of time to get through the line, sit down, eat, and clean up.”

Susan Leahy – Kitchen Coordinator, Frank I. Brown Elementary

“There are social behaviors between [middle school] students in terms of perceived or actual judgements on eating foods, both in terms of body image and... a sort of ‘you’re part of my group so we eat the same foods. Don’t eat a food the rest of the group doesn’t like.’”

“There will be likes and dislikes that create waste. If everyday we served mac and cheese and chicken nuggets, we wouldn’t be talking much about food waste, right?”

Ryan McKenney – Principal, Phillip W. Sugg Middle School

Qualitative Data: Stakeholder Interviews

What are some benefits you have seen resulting from the study?

“We all know kids waste a lot of food but actually seeing it and weighing the poundage and knowing how much of it there is. It’s a lot! It’s eye opening.”

Crystal Ferris – Food Services Manager, Easton Elementary School

“This is something that will continue long after the study is over... We used to do this years ago, now we are kind of back to where we were [pre]-Covid. We are back to using [metal] utensils, students know what they should take or not take.”

Mike Davis – Principal, Sherwood Heights Elementary School

“More of a sense of responsibility for the kids when they are cleaning up... it’s a lot more responsibility on their end and I think they’ve adjusted to it really well!”

Jayla Peavy – Foreperson, Frank I. Brown Elementary School

Qualitative Data: Stakeholder Interviews

Which intervention was most effective?

“The physical sorting station has the biggest impact. Because it does force them to go through and be intentional about what they are doing... The way to keep it going is to keep physical structures in place.”

Mike Davis – Principal, Sherwood Heights Elementary School

“One of my favorite benefits is the saved food. In the past, if a bagel had gone unopened and uneaten it would have gone in the trash. And now we’re saving that bagel and putting it in our fridge for a student who may be hungry later and can now have that saved food.”

Beth Kellogg – Principal, Frank I. Brown Elementary School

“...reusables. Plastic and Styrofoam are just so wasteful on so many levels... sharing uneaten food was great. Lots of older kids cleaned that basket daily.

Amy Sweetser – Science Teacher, Easton Elementary School

Qualitative Data: Stakeholder Interviews

How has the study affected your daily work?

“If we are short staffed it makes it nice because the trays are just neatly stacked [by the students] and we can just push them aside and not worry about them piling up with trash until we get to it.”

Amy Coppola – Cook, Easton Elementary School

“Less food going in the trash bags, and the silverware, no more [plastic] forks in the trash... the trash bags are lighter, smaller... it [the study] helps keep things organized.”

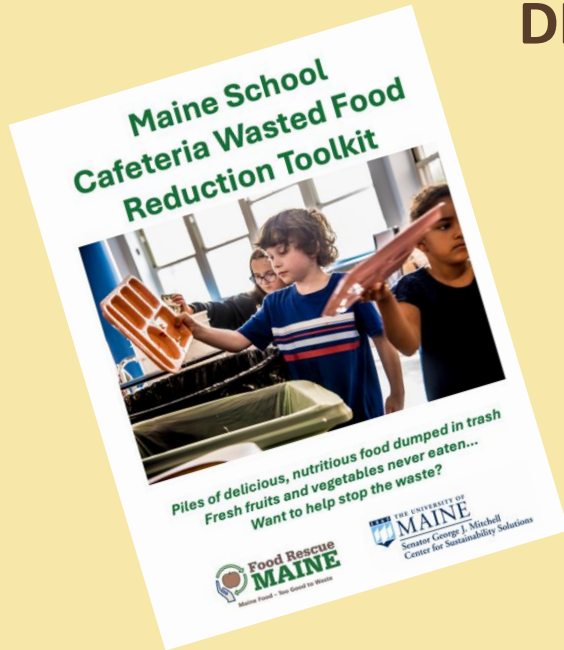
Brian Hess – Custodian, Sherwood Heights Elementary School

“I think it’s worked out well... I’ve really been moving towards putting ranch dressing out there [in squeeze bottles] rather than buying the [single-use] cups. I think that’s working well.”

Susan Leahy – Kitchen Coordinator, Frank I. Brown Elementary School


Going Forward: Opportunities

DIY Toolkit for Maine Schools



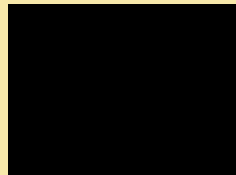
START Start Here: Take School Nutrition Program Assessment

- Begin your school's food waste reduction journey by completing our simple and quick [School Nutrition Program Survey](#).
- Plan to retake Survey every year to understand your progress and need for improvement.
- We recognize that no two schools are alike. This survey allows us to tailor solutions to fit your school's needs and strengths.
- Your responses will be assessed by the **Food Rescue MAINE** Team to create a plan of action for your school!



Is this Something More Maine Schools should Implement?

"Absolutely..."



Beth Kellogg - Principal, Frank I. Brown Elementary