



George L. Catrambone School: Focusing on School Food Waste

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Background on Food Waste

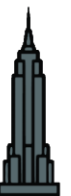
In the US we waste
30%-40%
of our food system.



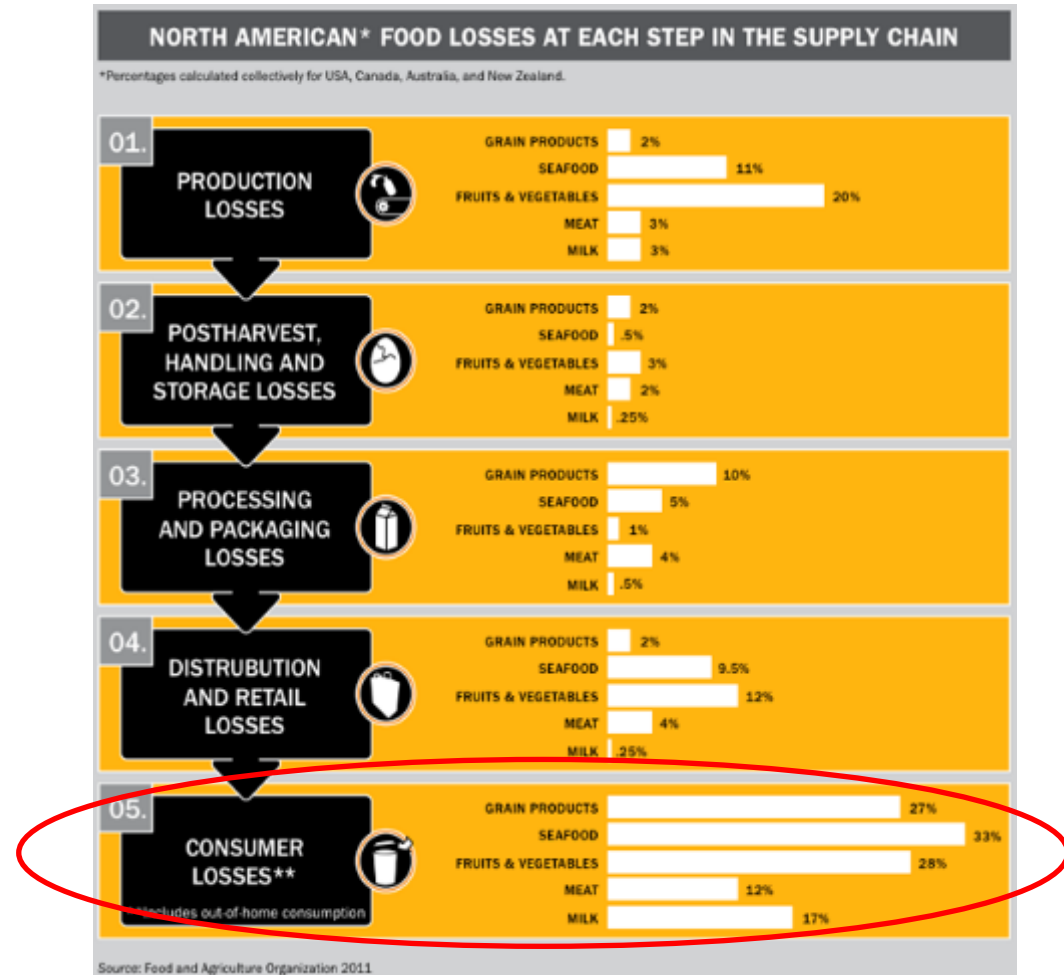
On average, each
person wastes more
than
**20 pounds of food
per month**

**80
billion
pounds
each year**

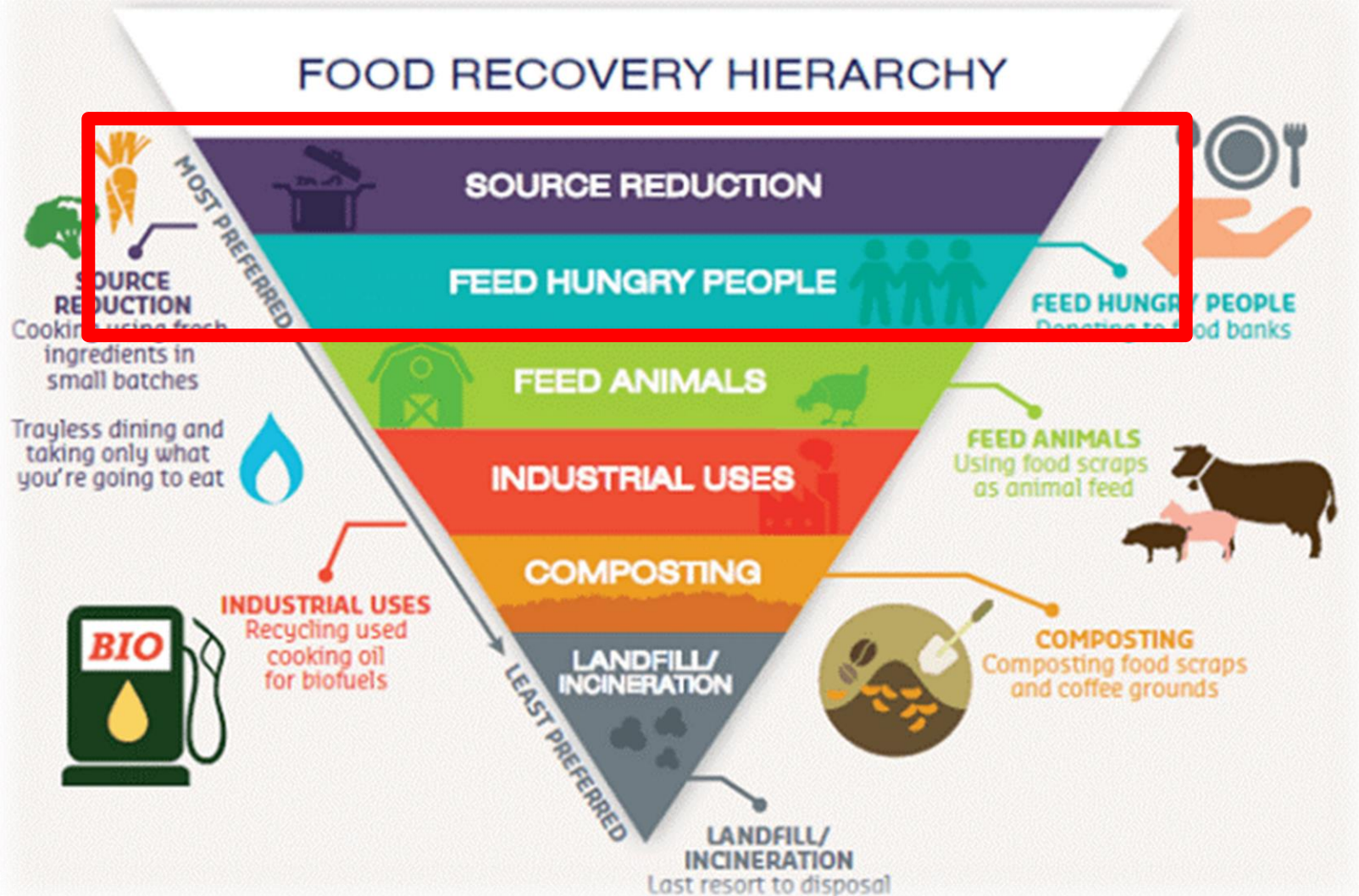
Enough to
fill the
Empire
State
Building
1,000
times.



Where Does Food Loss & Food Waste Happen?



How to Reduce Food Waste?



FOOD WASTE GOALS AND LEGISLATION IN THE US AND NJ

National & State Food Waste Reduction Goals



On September 16, 2015, the first-ever national food loss and waste goal in the United States was launched, calling for a 50% reduction by 2030.



In August 2017, the first Food Waste legislation in New Jersey was passed. Bill S3027 establishes that NJ will reduce its Municipal Solid Food Waste by 50% come 2030

Focus on School Food Waste



The State of New Jersey School Food Waste Guidelines



K-12 Schools Edition

November 2019



New Jersey Department of Environmental Protection
New Jersey Department of Agriculture
New Jersey Department of Education
New Jersey Department of Health
New Jersey Office of the Secretary of Higher Education



CASE STUDY OF Catrambone Elementary



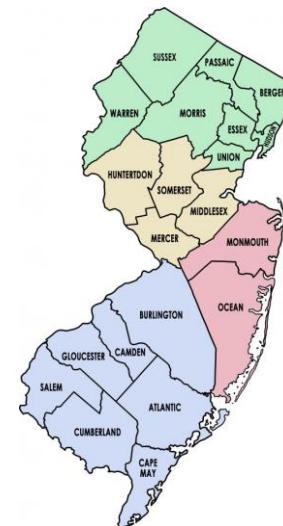
Study Objectives

- This study had three main objectives:
 - Reduce Food Waste in schools
 - Increase the amount of Fruits and Vegetables Consumed
 - Reduce the amount of Sugar Sweetened Beverages by reducing flavored milk consumption.

Study Design

Sustainable Jersey utilized a competitive application process to select three schools to participate in this study; each to represent **north**, **central**, and **southern** New Jersey respectively.

- Halstead Middle School in Newton, NJ
- George L. Catrambone Elementary in Long Branch, NJ
- Delran Middle School in Delran, NJ



Food waste production was measured for a **three-day** period to identify the contributing factors to waste and determine appropriate interventions to reduce food waste.

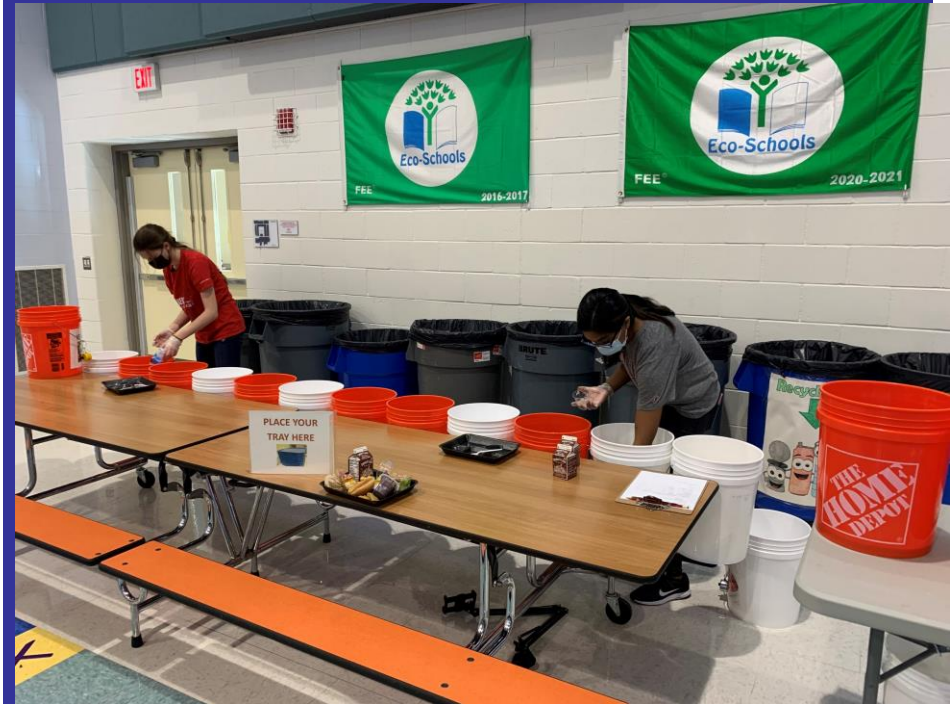
- Items leftover on individual food trays were separated by food group and weighed at the end of each lunch period.

Design of this Study

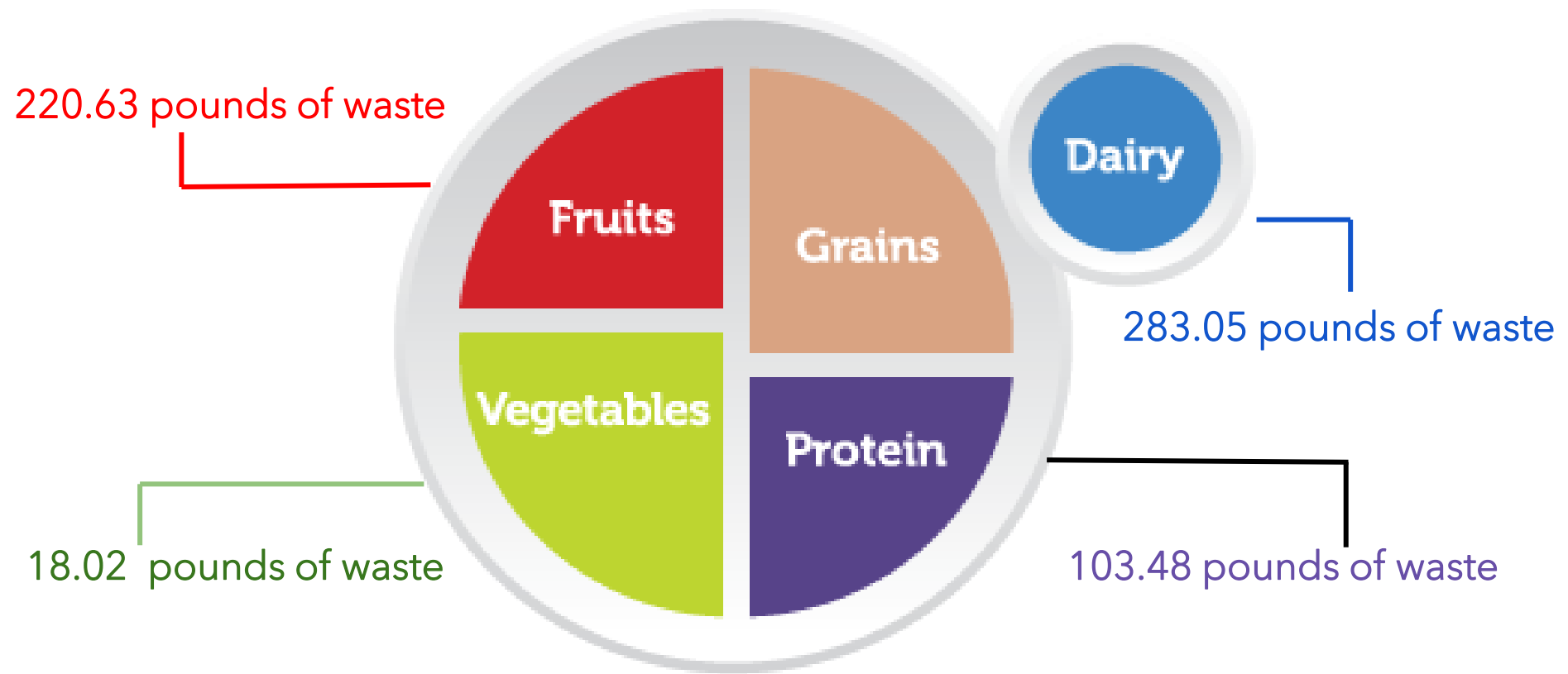
Food waste was separated into 7 buckets

- Fresh Fruit
- Fruit Cups
- Vegetables
- Hot Entree
- Cold Entree
- Flavored Milk
- Unflavored Milk

Unopened items were counted and weighed at the end of each day



Baseline Food Waste Measurements



That's a total of

625.17 pounds

—

What does this mean?

That is approximately

208 pounds

of waste per school per day

This can add up to about

37,510.20 pounds

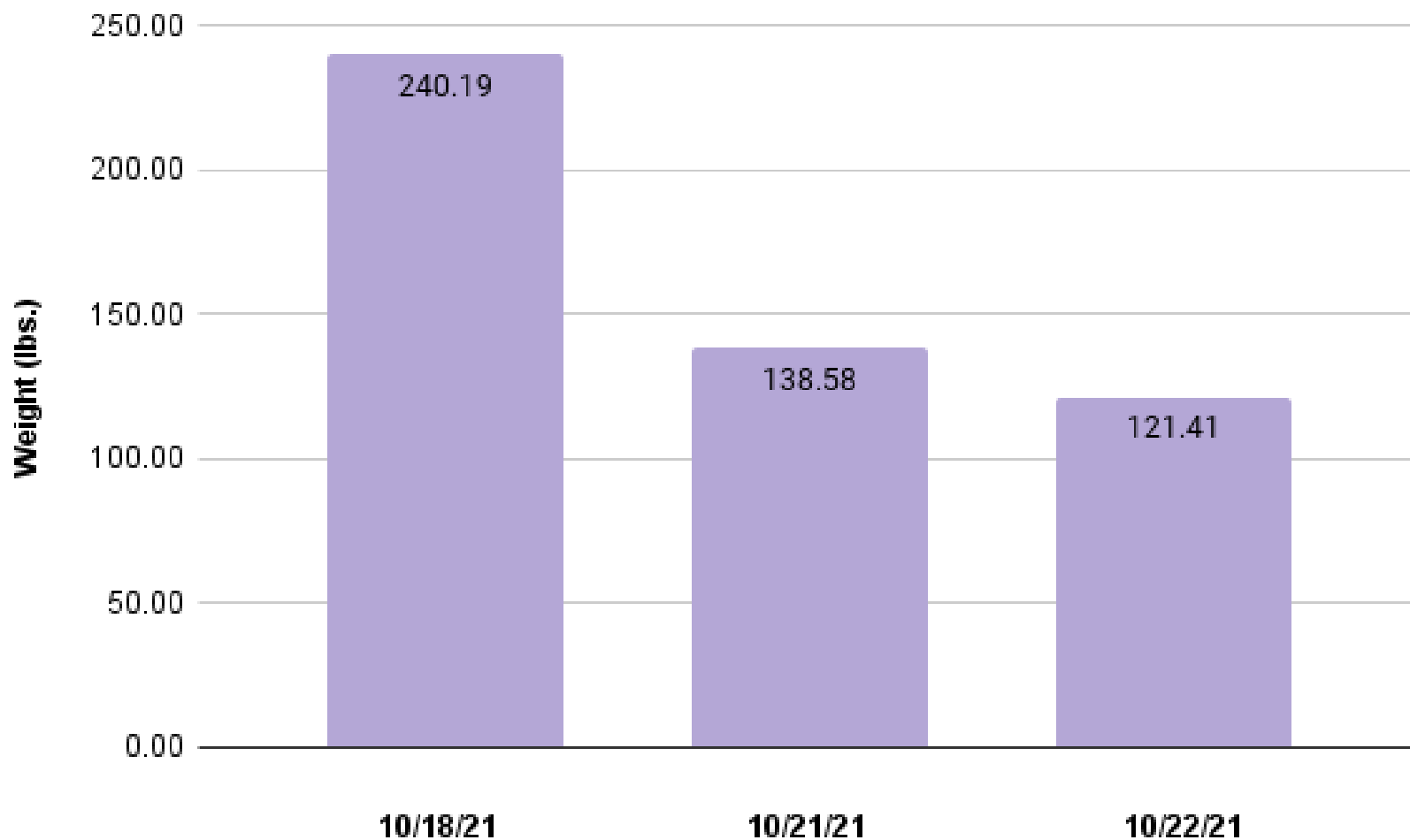
(18.75 TONS)

every school year

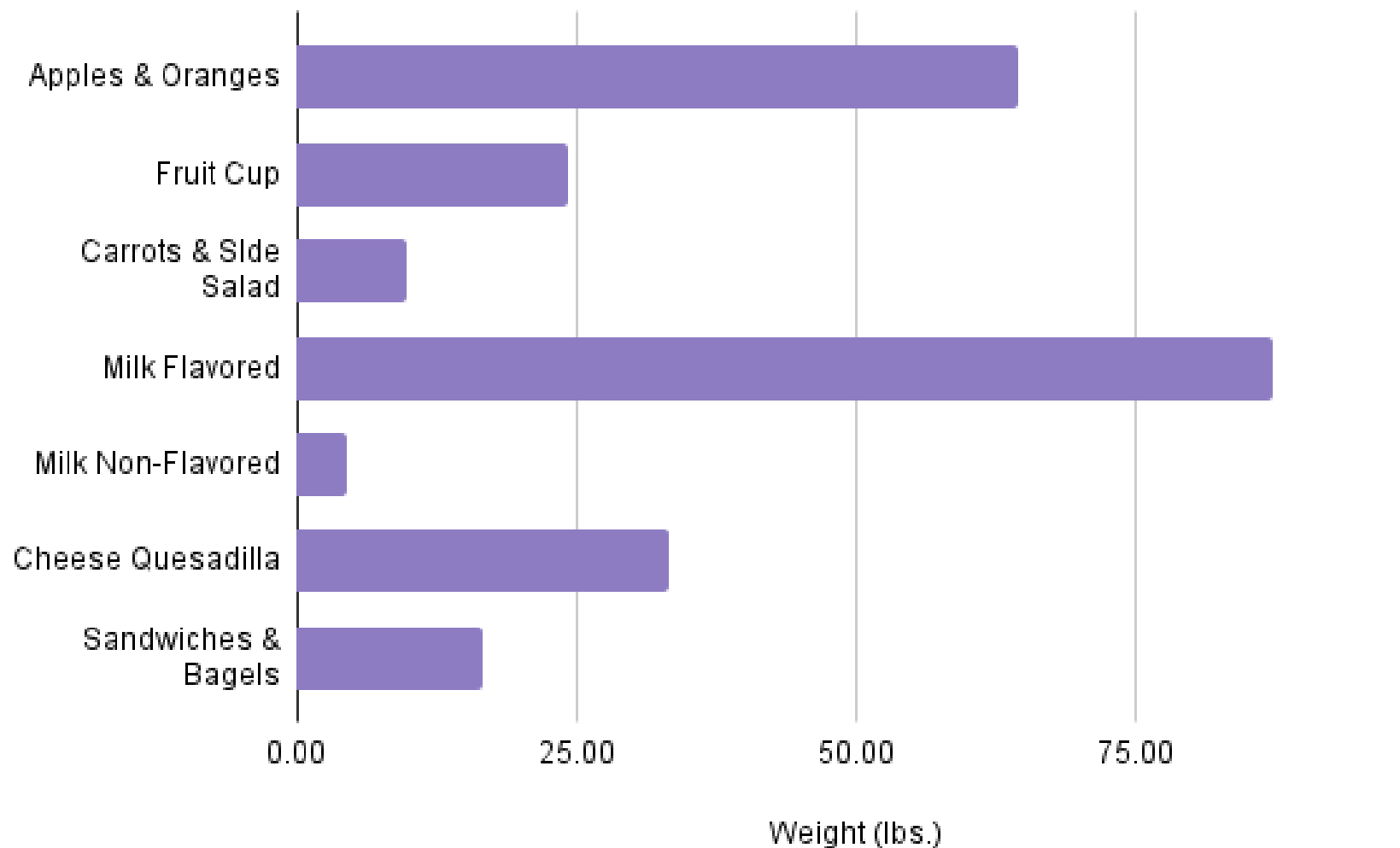


Total Waste Per Day

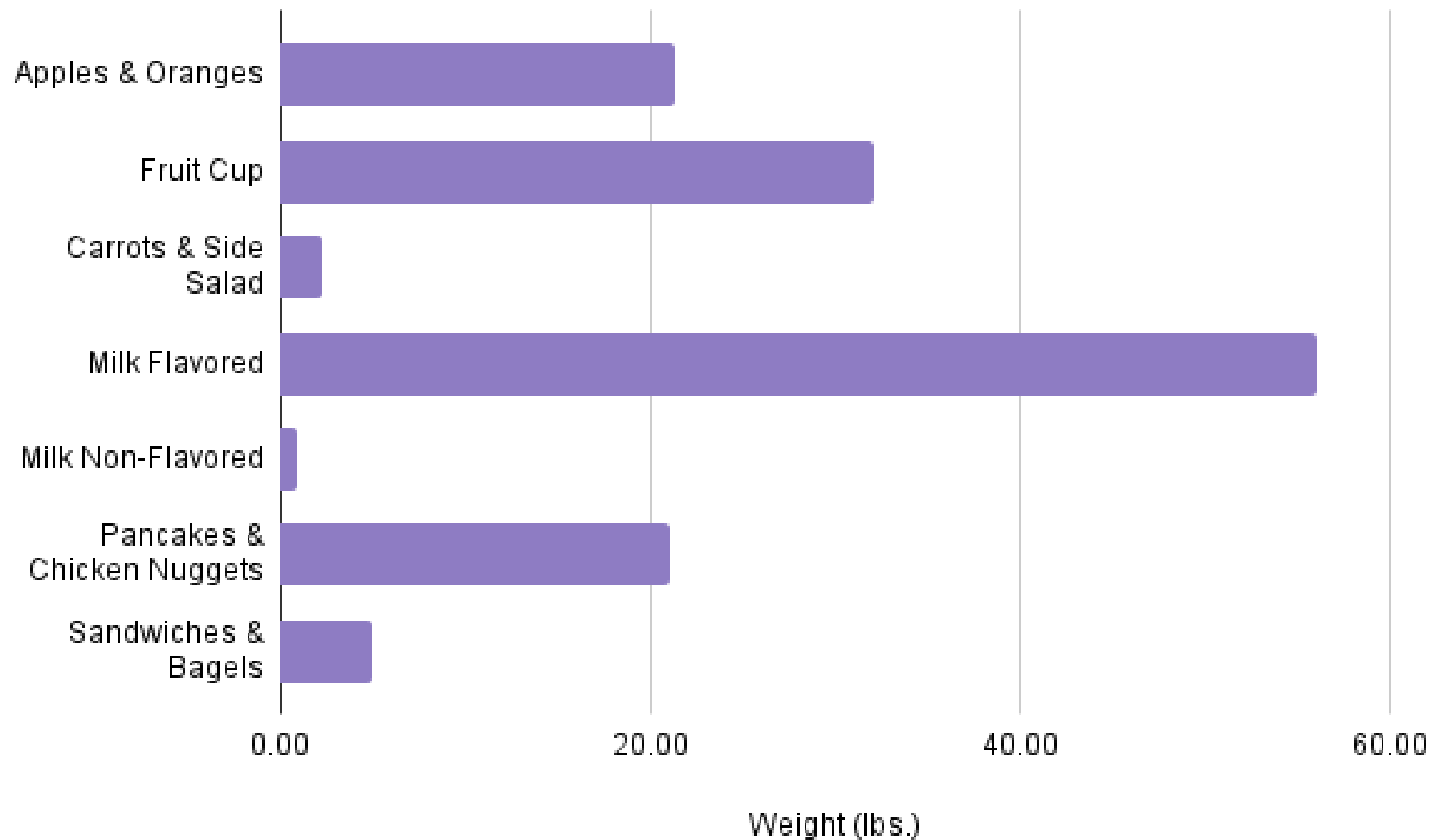
(Not including unopened items)



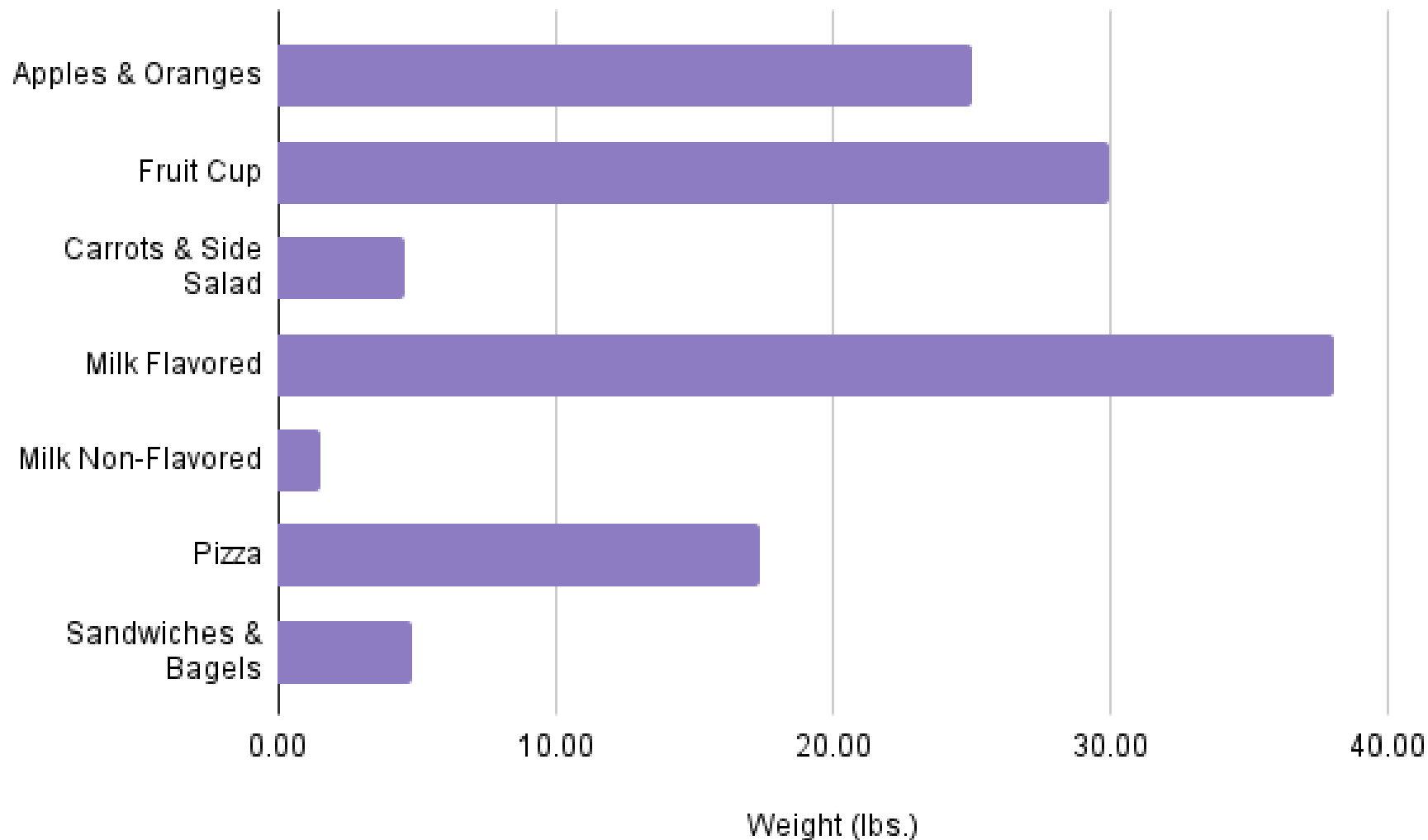
Food Waste Audit Day 1- 10/18/2021



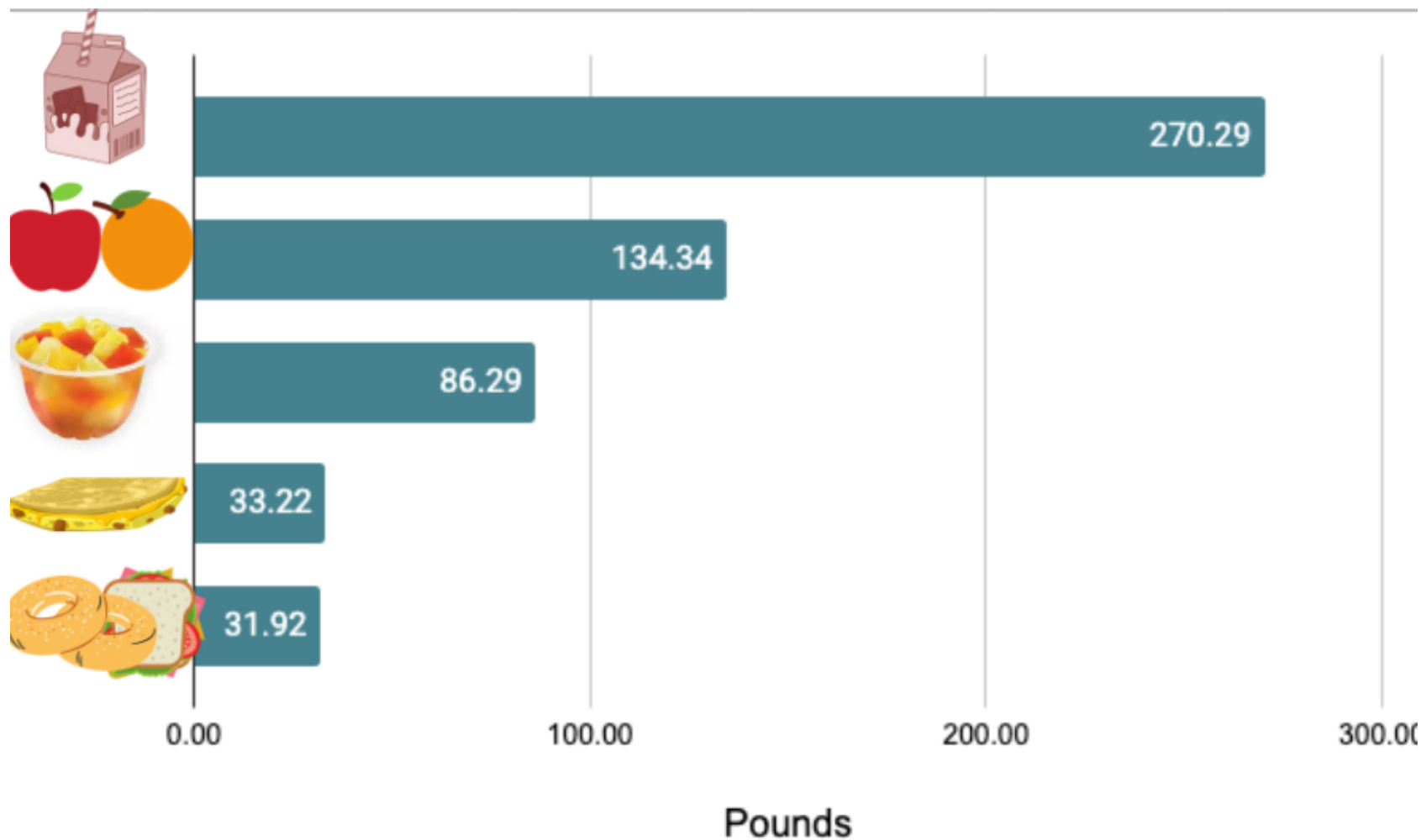
Food Waste Audit Day 2- 10/21/2021



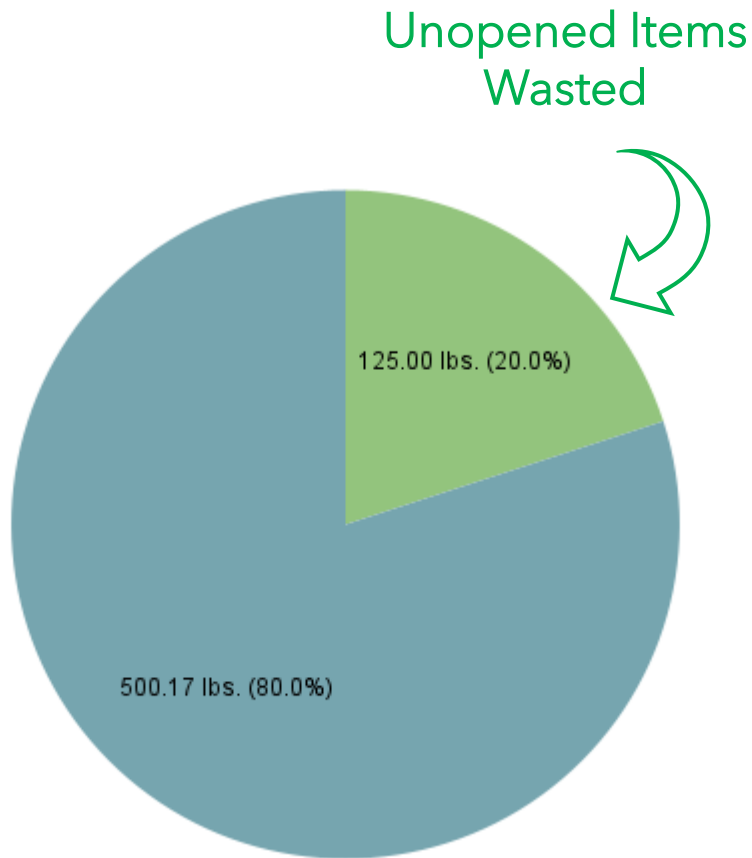
Food Waste Audit Day 3- 10/22/2021



Top 5 Wasted Items Overall



Opportunity to Share Food

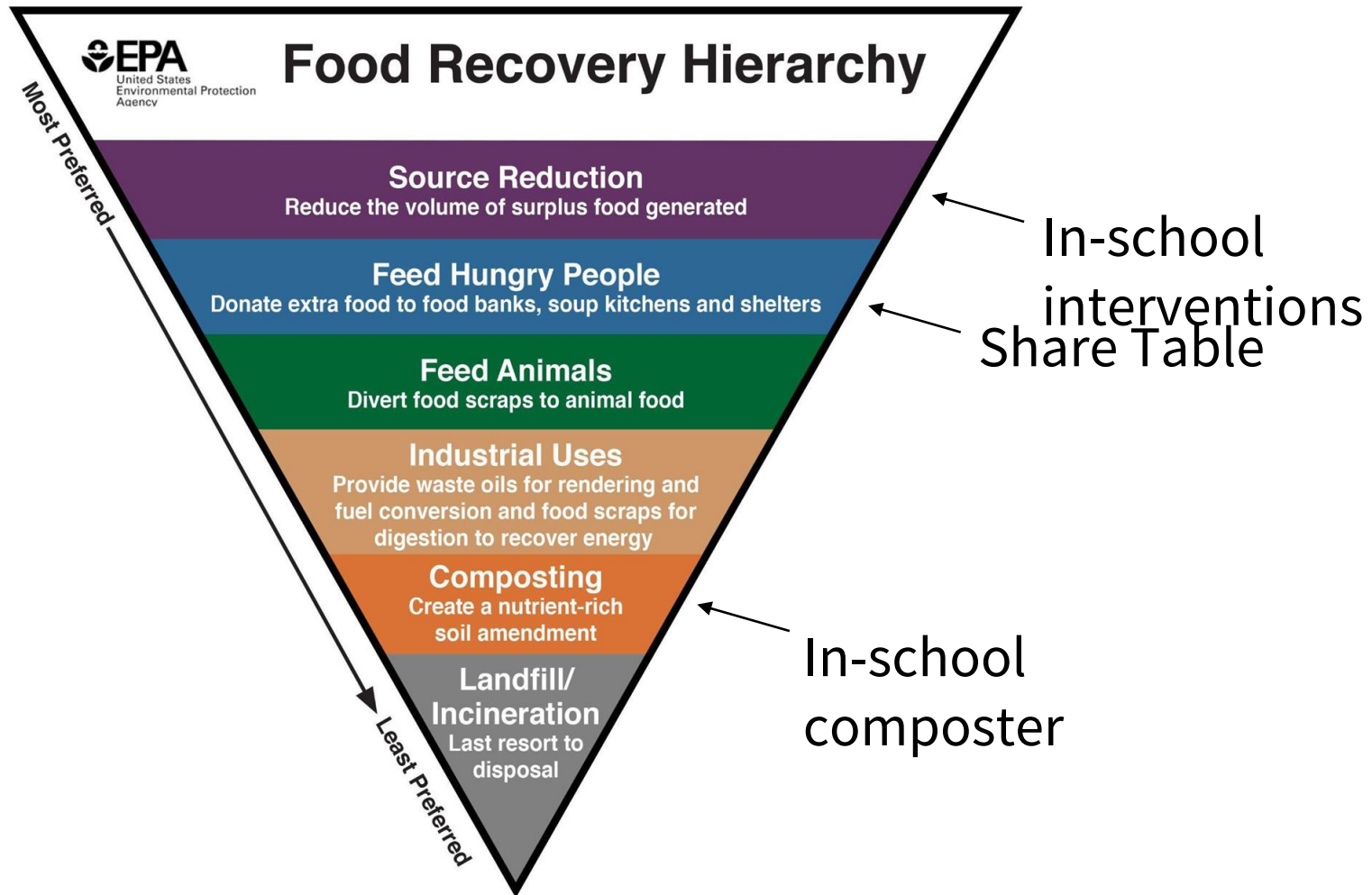


Items left unopened included:

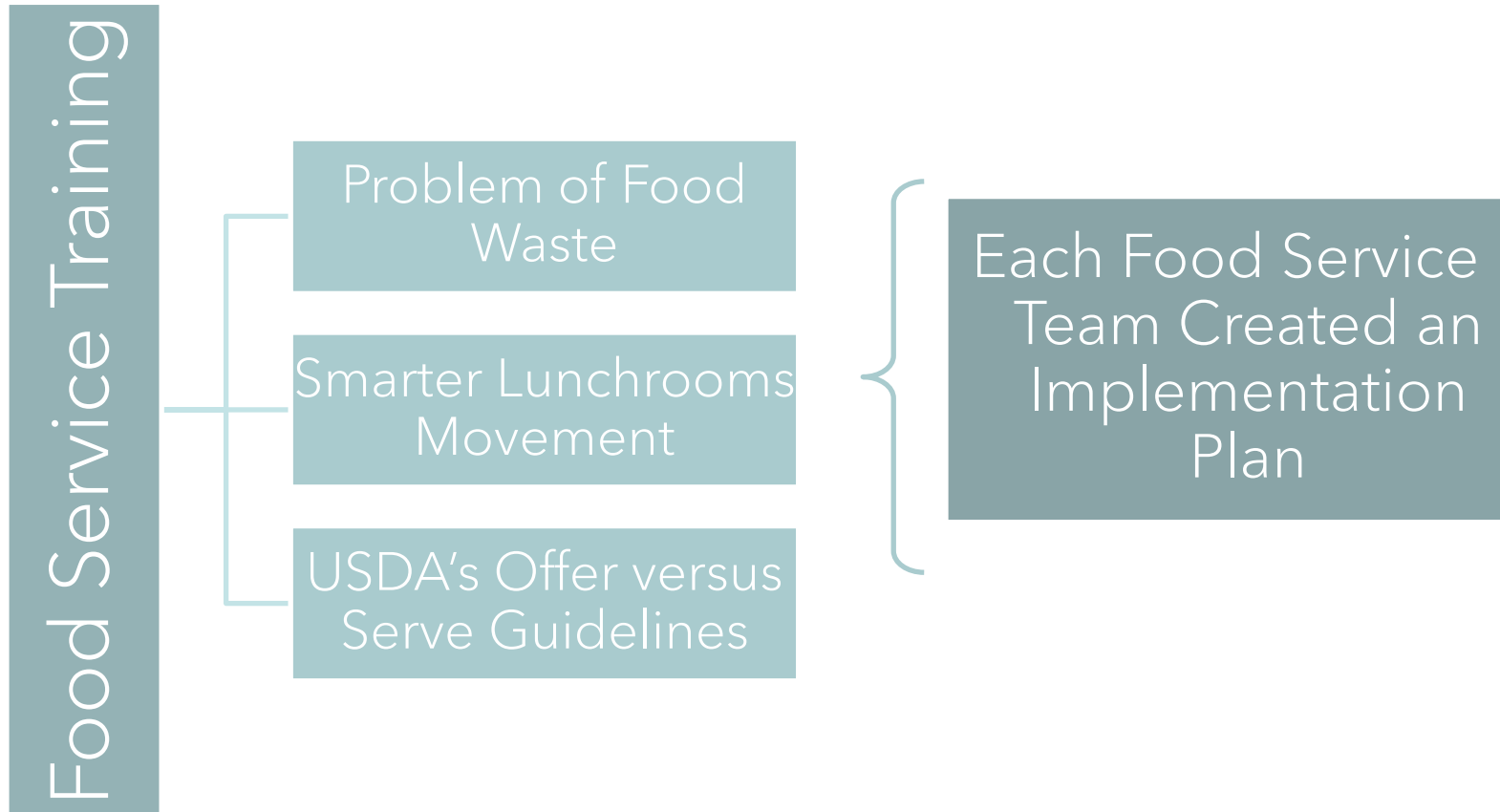
- Milk
- Fruit (Apples, Oranges)
- Yogurt
- Cheese Sticks

WHAT ARE WE

Going To Do About It?



Intervention



Efforts to Reduce Waste & Increase Food Security



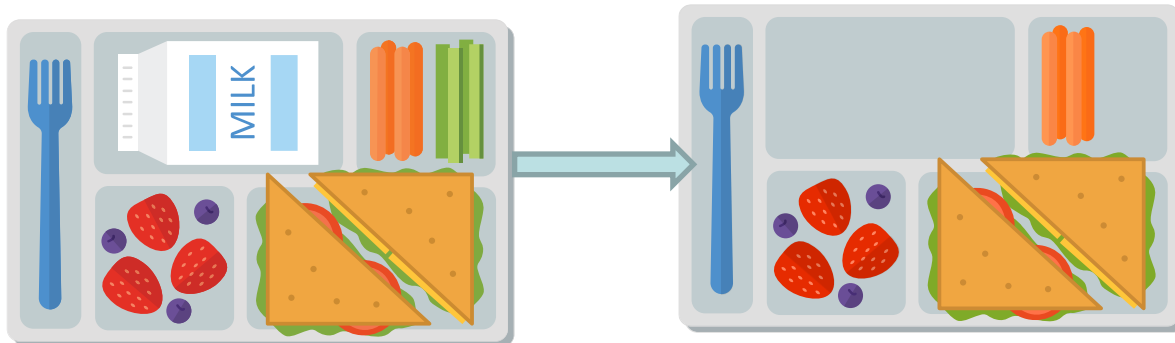
The Healthy, Hunger-Free Kids Act (HHFKA) provided schools and districts that predominately serve low-income children with a new option for meal certification.



Community Eligibility Provision (CEP) allows schools with high numbers of students (75%+) who are eligible for free and reduced lunch to provide free breakfast and lunch to all students.

USDA's Offer versus Serve Guidelines

- Offer versus Serve (OvS) Guidelines
 - Allows students to DECLINE some of the food offered in a reimbursable lunch or breakfast.
 - Does not affect the unit price for Breakfast or Lunch
- School is reimbursed for a meal if a student takes:
 - 3 or 4 of the 5 food components offered for lunch
 - As long as, there is at least a 1 cup of the fruit or vegetable component.



School Food Waste Literature: Interventions



Policy

- Time allocated to lunch
- Recess before lunch



Education

- Nutrition education for students



Changes to the Cafeteria Environment

- Menu changes
- Layout of specific items on the lunch line

(Getlinger et al., 1996 Hunsberger et al., 2014 Price & Just, 2015, Martins et al., 2016, Ramsay et al., 2013, Cullen et al., 2015, Cohen et al., 2013, Wilkie et al., 2015, Cohen et al., 2014, Byker et al., 2014, Schwartz et al., 2015 Cullen et al., 2015, Comstock et al. 1981, Getts et al. 2017)

Changes in the Lunchroom Environment

Portion Size

Research has found that larger portions lead to increased intake; however, it also increases waste

Convenience of Healthy Food

Convenience strategies like offering fruits in multiple locations and displaying milk in front of flavored milk.

Visibility of Healthy Food

Studies have found visibility of healthy food increases the selection and consumption of the healthy food item.

Enhancing Taste Expectations

Research has assessed that making food look and sound delicious will improve students' selection and consumption of healthy foods.

Cornell University's Behavioral Economics and Nutrition (BEN) Center collected these interventions and created a program called "Smarter Lunchrooms Movement"

Changed environment = Changed habits



Lunchroom Environment Strategies

- Focus on the Fruit
- Vary the Vegetables
- Highlight the Salad
- Move More White Milk
- Boost Reimbursable Meals
- Lunchroom Atmosphere
 - Student Involvement
- School Community Involvement

FOCUS ON FRUIT

- ❑ At least two kinds of fruit are offered.
- ❑ Sliced or cut fruit is offered.
- ❑ A variety of mixed whole fruits are displayed in attractive bowls or baskets (instead of stainless-steel pans).
- ❑ Fruit is offered in at least two locations on all service lines, one of which is right before each point of sale.
- ❑ At least one fruit is identified as the featured fruit-of-the-day and is labeled with a creative, descriptive name at the point of selection.
- ❑ A fruit taste test is offered at least once a year.



VARY THE VEGETABLES

- ❑ At least two kinds of vegetables are offered.
- ❑ Vegetables are offered on all service lines.
- ❑ Both hot and cold vegetables are offered.
- ❑ When cut, raw vegetables, are offered, they are paired with a low-fat dip such as ranch, hummus, or salsa.
- ❑ A serving of vegetables is incorporated into an entrée item at least once a month (e.g. beef and broccoli bowl, spaghetti, black bean burrito).
- ❑ Self-serve spices and seasonings are available for students to add flavor to vegetables.
- ❑ A vegetable taste test is offered at least once a year.



HIGHLIGHT THE SALAD

- ❑ Pre-packaged salads or a salad bar is available to all students.
- ❑ Pre-packaged salads or a salad bar is in a high-traffic area.
- ❑ Self-serve salad bar tongs, scoops, and containers are larger for vegetables and smaller for croutons, dressing, and other non-produce items.
- ❑ Pre-packaged salads or salad bar choices are labeled with creative, descriptive names and displayed next to each choice.



MOVE MORE WHITE MILK

- ❑ Milk cases/coolers are kept full throughout meal service.
- ❑ White milk is organized and represents at least 1/3 of all milk in each designated milk cooler.
- ❑ White milk is displayed in front of other beverages in all coolers.
- ❑ 1% or non-fat white milk is identified as the featured milk and is labeled with a creative, descriptive name.
- ❑ Use a milk dispenser instead of offering cartons of milk



BOOST REIMBURSABLE MEALS

- ❑ Cafeteria staff politely prompt students who do not have a full reimbursable meal to select a fruit or vegetable.
- ❑ One entrée is identified as the featured entrée-of-the-day, is labeled with a creative name next to the point of selection, and is the first entrée offered.
- ❑ Creative, descriptive names are used for featured items on the monthly menu.
- ❑ One reimbursable meal is identified as the featured combo meal and is labeled with a creative name.
- ❑ The combo meal of the day or featured entrée-of-the-day is displayed on a sample tray or photograph.
- ❑ A (reimbursable) combo meal is offered as a grab-and-go meal.
- ❑ Students are offered a taste test of a new entrée at least once a year.*



LUNCHROOM ATMOSPHERE

- ❑ Cafeteria staff smile and greet students upon entering the service line and throughout meal service.
- ❑ Attractive, healthful food posters are displayed in dining and service areas.
- ❑ A menu board with today's featured meal options with creative names is readable from 5 feet away when approaching the service area.
- ❑ The lunchroom is branded and decorated in a way that reflects the student body.
- ❑ Compost, recycling and trash cans are at least 5 feet away from dining students.
- ❑ There is a clear traffic pattern. Signs, floor decals, or rope lines are used when appropriate.
- ❑ A menu board with tomorrow's featured meal with creative names is readable from 5 feet away in the service or dining area.



STUDENT INVOLVEMENT

- ❑ Student artwork is displayed in the service area or dining space.
- ❑ Students, teachers, or administrators announce today's menu in daily announcements.
- ❑ Students are involved in the development of creative and descriptive names for menu items.
- ❑ Students have the opportunity to volunteer in the lunchroom.
- ❑ Students are involved in the creation of artwork or marketing materials to promote menu items.
- ❑ Students provide feedback (informal - 'raise your hand if you like...' or formal - focus groups, surveys) to inform menu development.



SCHOOL COMMUNITY INVOLVEMENT

- ❑ A monthly menu is posted in the main office.
- ❑ A menu board with creative, descriptive names for today's featured meal options is located in the main office.
- ❑ A monthly menu is provided to students, families, teachers, and administrators.
- ❑ Elementary schools provide recess before lunch.
- ❑ Students are engaged in growing food (for example, gardening, seed planting, farm tours, etc.).



SUGGESTED INTERVENTIONS

Offer pre-cut or sliced fresh fruits instead of fruit cups

Use a milk dispenser instead of offering cartons of milk

Increase lunchtime by 5 - 10 minutes per lunch period

Take note of which hot entrees are most favorable amongst students

Offer ½ portions of sandwiches and pre-assembled bagels

Offer additional seasonings or condiments for students to add flavor

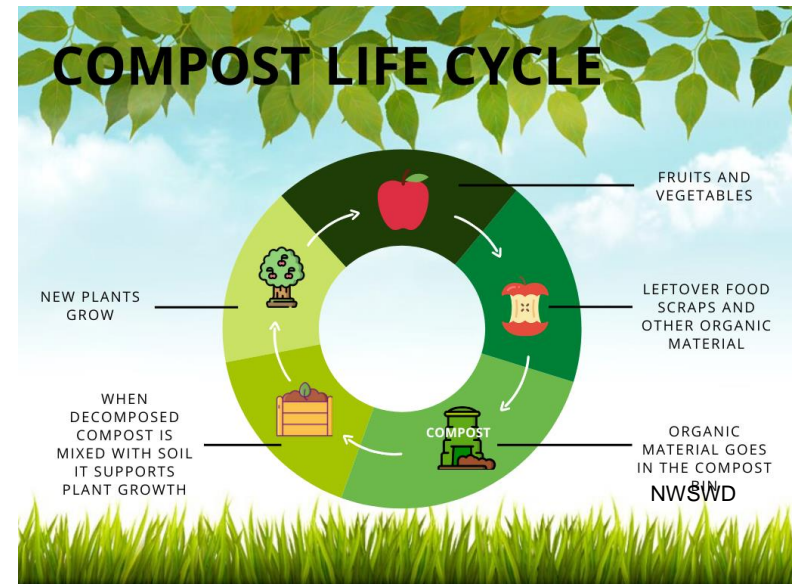
SHARE TABLES



- Only Non-perishable, pre-packaged foods are allowed on share tables.
- Fruits and Vegetables that are wrapped or have a thick skin are allowed
- Milk, cheese, cut fruit and any other temperature-controlled foods need to be put in an ice bath or refrigerator.
- More information to come.

COMPOSTING

- Composting allows organic material to break down into their valuable mineral components, which can be used to produce nutrient-rich soil
- Compost can help improve soil health and water retention, support the growth of more native plants, and decrease the need for fertilizers and pesticides.
- Specific composter training will be provided by the compost company



WHAT WILL YOU DO
In your school?

Project Timeline



Next Steps



IDENTIFY INTERVENTIONS
TO IMPLEMENT AT YOUR
SCHOOL



LEARN MORE ABOUT
SHARE TABLES

Food Recovery
Training scheduled
for *February 9, 2022*



EDUCATE YOUR
STUDENTS ON FOOD
WASTE REDUCTION

Thank you for your time.
What Questions Do You Have?



Contact Information

For questions, comments, and inquiries

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