

Food Waste and Food Insecurity:
Understanding and Addressing the Issues in Your Community

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#### Outline

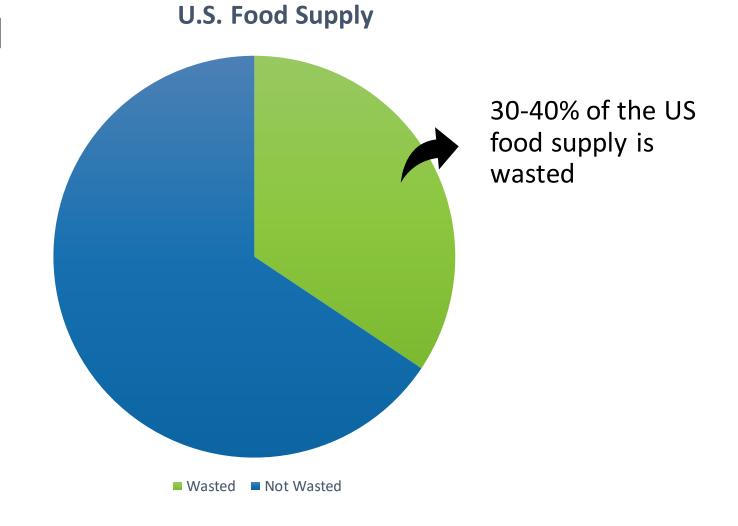
- Defining food waste
- Amount of food waste in the United States
- Issues associated with food waste
- Defining food insecurity
- Food insecurity in the United States and Tennessee
- Issues associated with food insecurity
- Strategies to reduce food waste
- Optional activities



#### What is food waste?

- Wasted food is food that was not used for its intended purpose.
- Includes food that is ultimately not used by humans.
- Examples: Food that is prepared or served but not eaten, spoiled food, unsold food, etc.

How much food is wasted in the United States?



# Food waste occurs across the food system

- Farms
- Manufacturing
- Businesses
- Restaurants
- Schools, hospitals, and other institutions
- Homes



Restaurants and households are responsible for about half of the food wasted in the United States

#### More than wasted food...









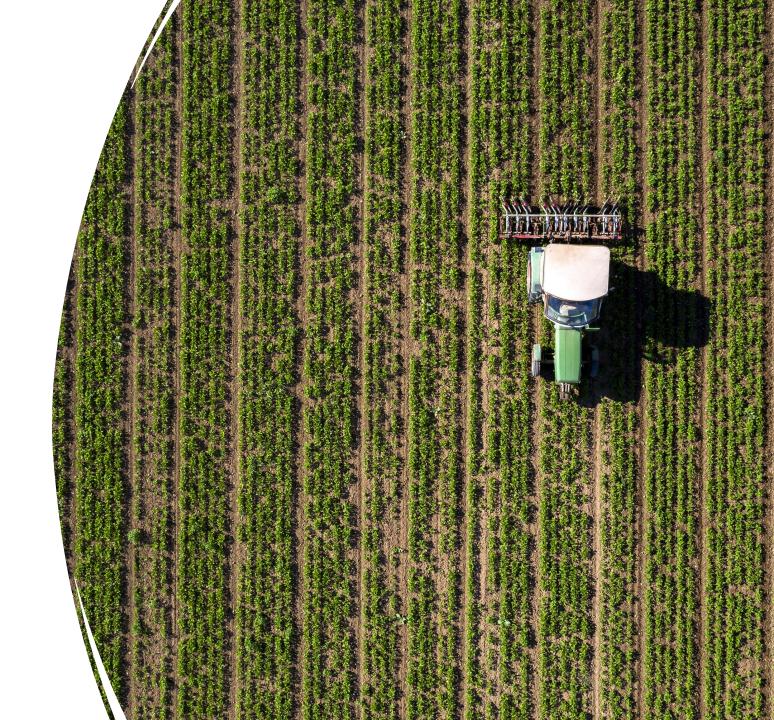


### Wasted Resources

Greenhouse gas emissions of more than 42 coal powered plants

Water and energy to supply more than 50 million homes

An area of agricultural land the size of the states of California and New York



# Environmental Impacts

- Food waste is the most common material found in landfills in the United States.
- Food waste makes up 22-24% of landfilled and incinerated materials in the United States.
- In landfills, food rots. The nutrients in food are not returned to the soil.
- Food waste accounts for 58% of landfill methane emissions.



# Wasted Money

A U.S. household of four wastes \$1,500/year on food that is never used



### Wasted Nutrients

- Fruits, vegetables, eggs, and dairy products are the most commonly wasted foods
- These foods provide nutrients our bodies need
- Many people in the U.S. do not get enough of these nutrients in their diet



# Opportunity to Address Food Insecurity

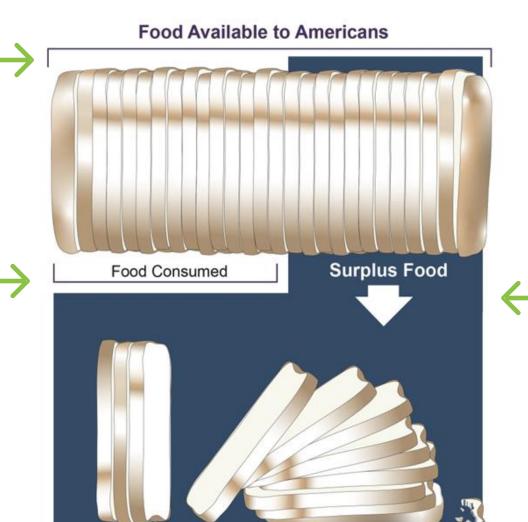
- Wasted food could be used to feed who do not have access to enough nutritious foods
- Preventing food waste is an opportunity to sustainably feed our world!



3,796 – 4,000 calories were available per person per day in the U.S.

2,081 calories consumer per person per day in the U.S.

The amount of wasted food is far more than the estimated amount of people experiencing food insecurity in the U.S.



Wasted food has enough calories to feed more than 150 million people per year

FIGURE 3-1, FOOD WASTE IN THE UNITED STATES

**Remaining Food Waste** 

Enough for all

food insecure

Americans

The amount of food available to Americans (in calories) exceeds the number of calories consumed plus the number of calories required to eliminate food insecurity. The figure depicts only edible food (i.e., inedible parts such as bones and shells are excluded from estimates). Data year 2010.

Data Source: Buzby et al. (2014); USDA (2012); Hall et al. (2009); Hiç et al. (2016)

# Food Insecurity



A condition a person experiences when they do not have regular access to enough safe and nutritious foods for their growth and development and to live an active, healthy lifestyle.



May occur when food is unavailable and/or people lack resources to obtain adequate amounts of food.

## Impacts of Food Insecurity

Poorer diet quality

Increased risk for obesity

Increased risk for chronic conditions

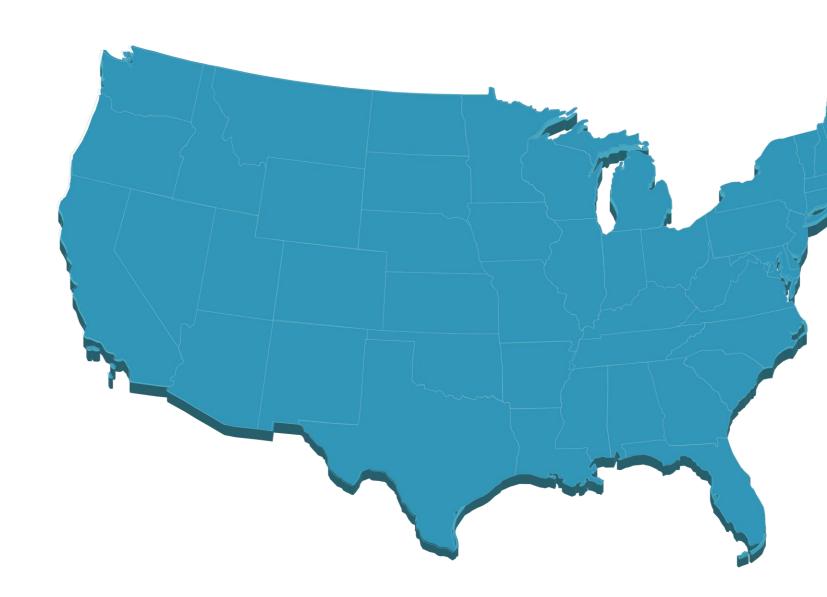
Poorer mental health

Poorer academic performance

Impaired growth and development

#### Food Insecurity in the United States (2022)

- 12.8% of households
- About 17 million households



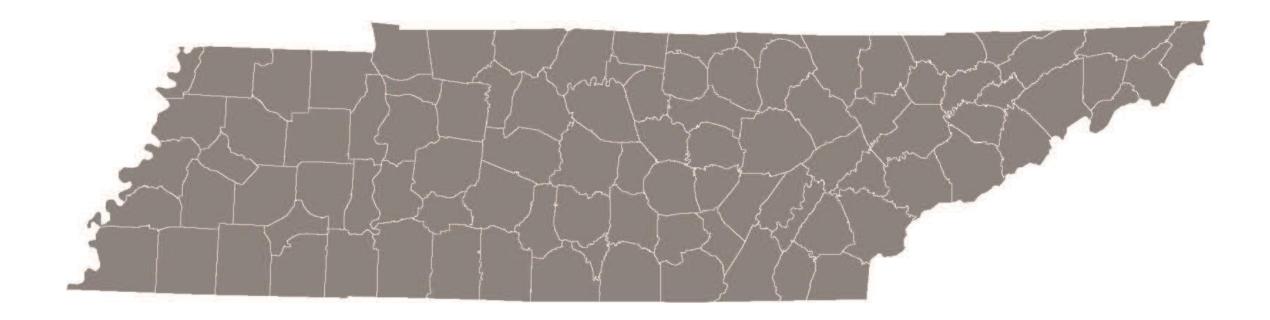
# Households with Higher Rates of Food Insecurity

- Households with children (17.3%)
- Households with children under age 6 (16.7%)
- Households headed by a single female (33.1%) or male (21.2%)
- Women living alone (15.1%)
- Black, Non-Hispanic households (22.4%)
- Hispanic households (20.8%)
- Low-income households (36.7%)

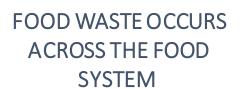


#### Prevalence of Food Insecurity in Tennessee (2021)

- 800,970 Tennesseans experienced food insecurity
- 11.5% of Tennessee residents experienced food insecurity









PREVENTING FOOD WASTE REQUIRES MULTIPLE TYPES OF INTERVENTIONS



PREVENTING FOOD WASTE REQUIRES ACTION BY EVERYONE!



#### **Food Recovery Hierarchy**



#### **Source Reduction**

Reduce the volume of surplus food generated

#### **Feed Hungry People**

Donate extra food to food banks, soup kitchens and shelters

#### **Feed Animals**

Divert food scraps to animal food

#### **Industrial Uses**

Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy

#### Composting

Create a nutrient-rich soil amendment

#### Landfill/

Incineration
Last resort to
disposal

ferred





Reducing Food Waste at Home



# Plan and shop for food wisely

- Plan your meals for the upcoming week
- Check your freezer, pantry, and refrigerator first before buying food
- Incorporate foods that need to be used quickly into your meal plan
- Use your meal plan to develop a shopping list
- Purchase what you're able to use or freeze
  - Buying in bulk and deals like Buy One Get One
     Free are only good deals if you can use and store
     the foods



### Store foods properly

- Refrigerate or freeze perishable foods within two hours of purchasing or one hour of purchasing if it is 90F or hotter.
- Store many fruits and vegetables like blueberries, strawberries, squash, and lettuce in the refrigerator.
- Store fruits like watermelon, bananas, tomatoes, and winter squash on the counter
- Store onions, garlic, and potatoes in a dark, dry place
- Avoid storing milk and eggs in the refrigerator door

#### Understand food date labels

- Best if used by/before Indicates when a food/beverage will be of its best flavor or quality. Not a safety date
- Sell by Tells the store how long to display a food/beverage for sale. Not a safety date
- Use by Indicates the last date recommended for use while the product is at peak quality.
   Not a safety date except when on infant formula.
- Freeze by Indicates when a product should be frozen to maintain peak quality. Not a safety date.



#### Understand food date labels

- Infant formula should NOT be used past the "useby" date
- Other foods can be used after the date passes, if they stored and handled properly, until they spoil.
- Spoiled foods will have an off flavor, odor, or texture and should not be eaten



# Prevent food waste from going to landfills

- Compost food scraps
- Donate safe foods to food banks or food pantries







# Activity #1

Research Food Insecurity in Your County

• Visit this website:

https://map.feedingamerica.org/county/2021/overall/tennessee

 Use the search feature or click on your county to find food insecurity rates in your county

#### Food Insecurity among Overall (all ages) Population in Tennessee Search State, County, or Food Bank Demographic Map Type 2021 2020 2019 Overall (all ages) District 2018 2017 The United States Tennessee

• Visit this website:

https://map.feedingamerica.org/county/2021/overall/tennessee

 Change the demographic characteristics to find food insecurity rates by age and race/ethnicity

#### Food Insecurity among Overall (all ages) Population in Tennessee

Click or touch on the map, or use the search bar to start exploring Search State, County, or Food Bank Demographic Мар Туре Year 2020 2018 District 2019 2017 Child (<18 years) Older Adult (age 50-59) Senior (age 60+) Race/ethnicity Black (all ethnicities) Latino (Hispanic) White, non-Hispanic



- What is the overall rate of food insecurity in your county?
- What are the rates of food insecurity by age in your county?
  - Children (< 18 years of age)</li>
  - Older Adults (50-59 years of age & 60+ years of age)



What are the rates of food insecurity by race/ethnicity in your county?

- Black (all ethnicities)
- Latino (Hispanic)
- White (Non-Hispanic)
- Asian
- Native Hawaiian and/or Pacific Islander
- Native American or Alaska Native



#### Discuss

- How does the rate of food insecurity in your county compare to the rate of food insecurity in Tennessee?
- How does the rate of food insecurity vary by age in your county?
- How does the rate of food insecurity vary by race/ethnicity in your county?



# Activity #2

Identify one action you could take to reduce food waste in your home

#### Set a SMART goal....

<b>S</b> pecific	Specific goals answer the question, "What am I going to do?"
<b>M</b> easurable	Your goal should be measurable so you can tell if you goal has been met
<b>A</b> chievable	Your goal should be something that you can achieve
Relevant	Your goal should be something that helps you do the things that you want to do
Timely	Your goal should have a time-frame so that you know when your goal should be met



#### Examples...

On Saturday morning, I will develop a meal plan for my household for the next week.

On Saturday afternoon, I will spend 1 hour organizing my pantry and donate any foods that I won't use to the Tennessee Food Waste Awareness Week Statewide Food Drive.

On Sunday afternoon, I will spend 1 hour reading about composting at home from the US EPA website.



### Activity #3

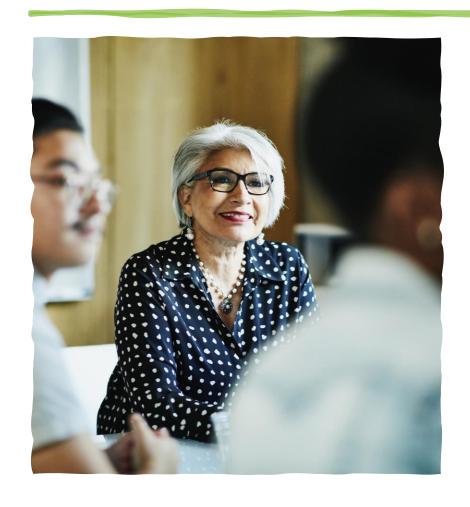
Brainstorm ways you/your organization can reduce and prevent food waste/food insecurity in your community

	What do you want to do?	What are the opportunities, strengths, and/or partners that exist and can help you?	How can you engage with these opportunities?	What type of resources, partners, etc. will you need?
Examples:	Reduce food insecurity in our county	Tennessee Extension office	Discuss opportunities with the Extension agent	Develop partnerships with the local
		Local food pantry	Better understand the needs of the local food	food pantry
		Dedicated volunteers	pantry and ways to help	
		Food Waste Prevention Week resources and activities	Understand and identify volunteer opportunities for organization members	

#### Set SMART goals....

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### Examples...



In the next month, a representative from our organization will contact one food pantry in our county to ask how we can support their work.

In the next week, a representative from our organization will call the Family and Consumer Sciences Extension agent in our office to discuss opportunities to support the Tennessee Food Waste Awareness Week Statewide Food Drive.

On Tuesday morning, from 8-12, volunteers from our organization will help our Extension office set up a booth at the local grocery store to collect food donations.



### Take-Aways

- 30-40% of the U.S. food supply is never eaten and is wasted.
- Food waste occurs across the food system and about half of food waste is from restaurants and homes
- Food waste is costly and negatively affects the environment
- Safe, nutritious foods that are wasted could be used by people experiencing food insecurity
- There are many ways to reduce food waste and reducing food waste requires action by everyone!

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# Thank you!

