



THE UNIVERSITY of EDINBURGH
Global Academy of
Agriculture and Food Systems

IDI Data-Driven
Innovation
Part of the Edinburgh & South East Scotland City Region Deal

Food Security

Amelia B Finaret, Honorary Lecturer

EDINBURGH
extraordinary futures await

Myths about food security

- Food insecurity is the same phenomenon as hunger
- Food insecurity is caused by a lack of food
- Only people who are unemployed need food assistance
- Food insecurity doesn't exist in high-income countries
- People who are fat cannot be food insecure

Image by [congerdesign](#) from [Pixabay](#)



Food security involves physical and psychological needs for food

“Food security is when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences.”

- World Health Organization

Image by 白川 楽 from [Pixabay](#)



The 'Food Insecurity Experience Scale' includes 8 key questions



The FIES Survey Module

The FIES-SM questions refer to the experiences of the individual respondent or of the respondent's household as a whole. The questions focus on self-reported food-related behaviors and experiences associated with increasing difficulties in accessing food due to resource constraints.

During the last 12 months, was there a time when, because of lack of money or other resources:

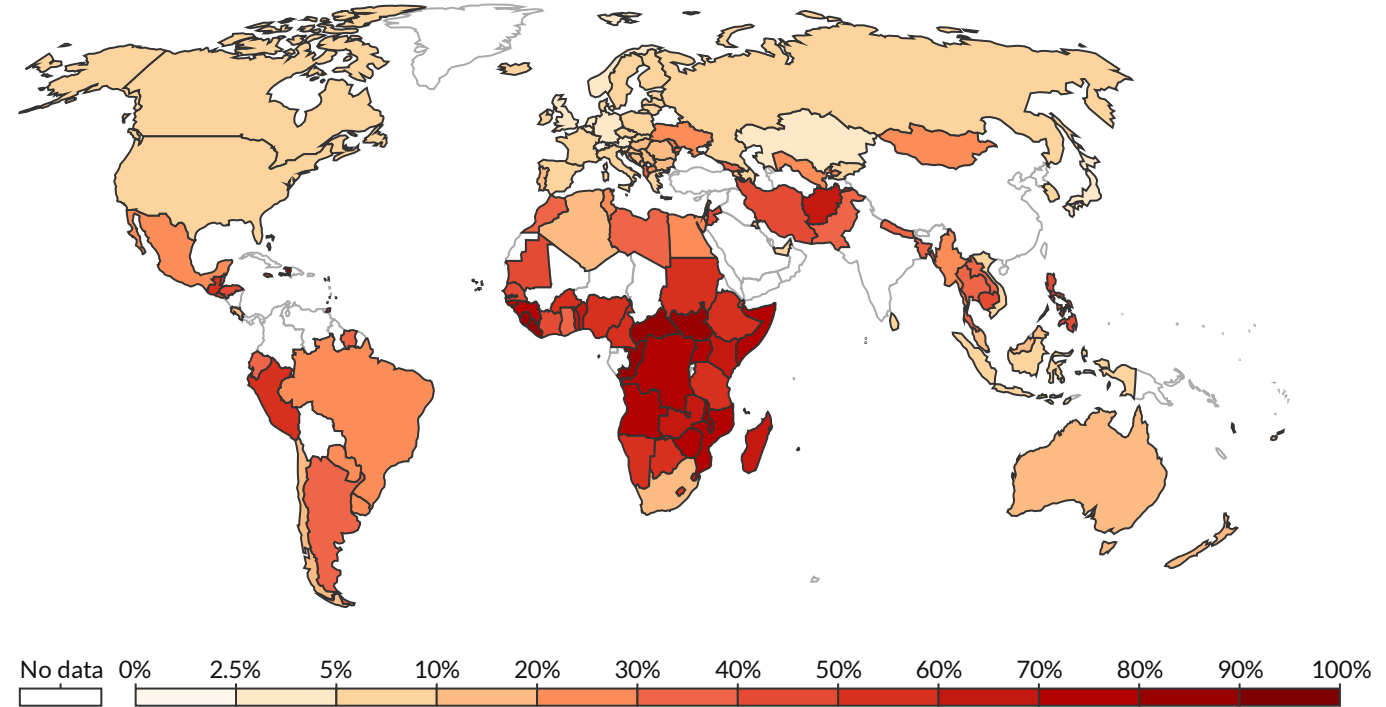
1. You were worried you would not have enough food to eat?
2. You were unable to eat healthy and nutritious food?
3. You ate only a few kinds of foods?
4. You had to skip a meal?
5. You ate less than you thought you should?
6. Your household ran out of food?
7. You were hungry but did not eat?
8. You went without eating for a whole day?



Share of the population with moderate or severe food insecurity, 2020

Share of population with moderate or severe food insecurity, 2020

Food insecurity¹ is defined by the Food Insecurity Experience Scale (FIES). Moderate food insecurity is associated with the inability to regularly eat healthy, nutritious diets. Severe food insecurity is more related to insufficient quantity of food (energy).



Data source: Food and Agriculture Organization of the United Nations
OurWorldInData.org/hunger-and-overnourishment | CC BY

Food and Agriculture Organization of the United Nations – processed by Our World in Data. “Prevalence of moderate or severe food insecurity in the total population (percent) (3-year average) - Value (Percent)” [dataset]. Food and Agriculture Organization of the United Nations [original data].

1. Food insecurity: Food insecurity is defined by the Food and Agriculture Organization (FAO) of the United Nations as the “situation when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life.” It is measured using the Food Insecurity Experience Scale (FIES). This is based on household survey data about several conditions someone with food insecurity would typically experience. Moderate food insecurity is generally associated with the inability to regularly eat healthy, nutritious diets. Severe food insecurity is more strongly related to insufficient food (energy). You can read more about this in our article.

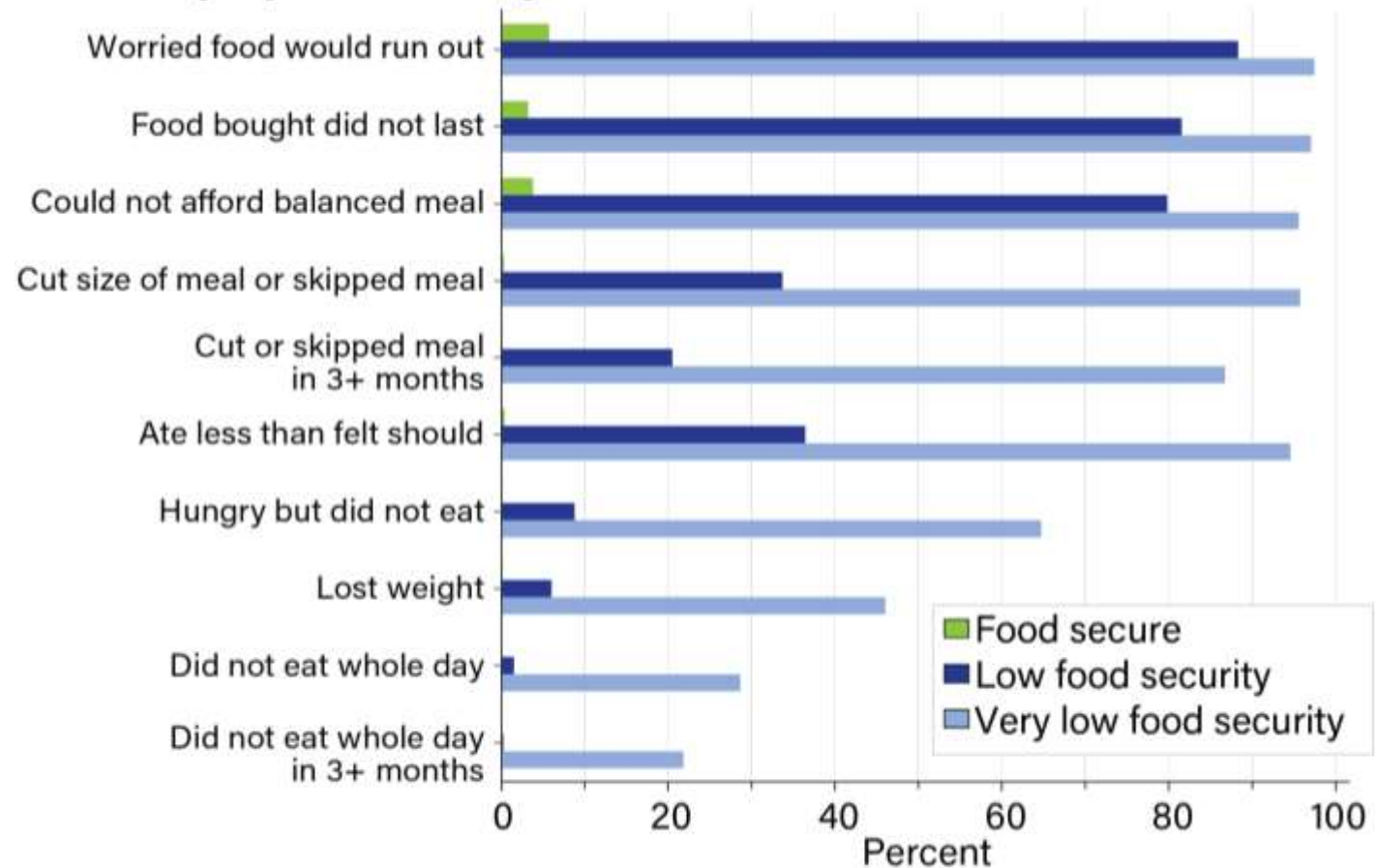


Food wellbeing

Food wellbeing, and good food lives depend on many factors:

- psychological, physical, and social

Percentage of U.S. households reporting indicators of adult food insecurity, by food security status, 2022



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2022 Current Population Survey Food Security Supplement.



Causes of food insecurity

- Food insecurity can result from a combination of many factors that are interconnected and complex
 - These complex factors are out of the control of the individual or household
- People facing these challenges may benefit from various food assistance programs. Food assistance programs exist in many forms depending on the location.
- Causes of food insecurity:
 - Poverty
 - Natural disasters
 - Conflict and civil insecurity
 - Disability and health problems
 - High food prices relative to incomes
 - Insufficient infrastructure



Image by [Storme](#) from [Pixabay](#)



Food insecurity and body size

- Body size is not an indicator of food security status
- Cycles of food deprivation and then eating a lot at once can cause unwanted weight gain over time.
- A lack of access to a variety of foods reduces food enjoyment, so quantity of food may be substituted for quality / enjoyment
- Stress and mental health challenges are related to emotional eating, and emotional eating is associated with unwanted weight gain
- Poverty may necessitate less than ideal food choices, and may not allow for as much physical activity as would otherwise be desired

Image by Asya Vlasova from [Pexels](#)



Food Security Update

The World Bank publishes a regular global **Food Security Update**



Access the [Global Food and Nutrition Security Dashboard](#)

Update October 26, 2023

The findings, interpretations, and conclusions expressed in this update do not necessarily reflect the views of the World Bank, its Board of Executive Directors, or the governments they represent.

AT A GLANCE

- The agricultural and export price indices closed 3 percent and 7 percent higher than two weeks ago, respectively, while the cereal price index was unchanged.
- Domestic food price inflation remains high in low-, middle-, and high-income countries.
- In a blog released October 16, IFPRI highlights [World Food Day 2023](#) under the theme "Water is Life, Water is Food. Leave No One Behind," which underscores the often-underestimated role of water in food systems.
- A [new United Nations Food and Agriculture Organization \(FAO\) report](#) found that global agricultural losses due to natural disasters amounted to \$3.8 trillion from 1991 to 2021—equivalent to annual losses of \$123 billion, or about 5 percent of global agricultural gross domestic product (GDP).
- [The Global Alliance for Food Security \(GAFS\)](#) has launched a [new module](#) on its [Global Food and Nutrition Security Dashboard](#) that tracks Food Security Crisis Preparedness Plan (FSCPP) progress and mobilizes early action when crises are detected.



Data and resources

- **Food security** is related to food enjoyment.
- Food enjoyment is an important subjective aspect of **food security**, measured by the [Food Insecurity Experience Scale \(FIES\)](#)
- [The World Bank Food Security Research](#)
- [USDA data for the United States – Guide to Food Security Statistics](#)



/GlobalAgEd



@GlobalAgEd





THE UNIVERSITY of EDINBURGH
Global Academy of
Agriculture and Food Systems

IDI Data-Driven
Innovation
Part of the Edinburgh & South East Scotland City Region Deal

Thank you

Amelia B Finaret
Honorary Lecturer

EDINBURGH
xtraordinary futures await