

# Food Insecurity Experience Scale 2024

**Food and Agriculture Organization of the United Nations**

report\_generated\_on: July 31, 2025

visit\_data\_catalog\_at: <https://microdata.worldbank.org/index.php>

## Identification

### SURVEY ID NUMBER

EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

### TITLE

Food Insecurity Experience Scale 2024

### ABBREVIATION OR ACRONYM

FIES 2024

### COUNTRY/ECONOMY

Name	Country code
Estonia	EST

### STUDY TYPE

Socio-Economic/Monitoring Survey [hh/sems]

### ABSTRACT

Sustainable Development Goal (SDG) target 2.1 commits countries to end hunger, ensure access by all people to safe, nutritious and sufficient food all year around. Indicator 2.1.2, "Prevalence of moderate or severe food insecurity based on the Food Insecurity Experience Scale (FIES)", provides internationally-comparable estimates of the proportion of the population facing difficulties in accessing food. More detailed background information is available at <https://www.fao.org/measuring-hunger/en>.

The FIES-based indicators are compiled using the FIES survey module, containing eight questions. Two indicators can be computed:

1. The proportion of the population experiencing moderate or severe food insecurity (SDG indicator 2.1.2),
2. The proportion of the population experiencing severe food insecurity.

These data were collected by FAO through the Gallup World Poll. General information on the methodology can be found here: <https://www.gallup.com/178667/gallup-world-poll-work.aspx>. National institutions can also collect FIES data by including the FIES survey module in nationally representative surveys.

Microdata can be used to calculate the indicator 2.1.2 at national level. Instructions for computing this indicator are described in the methodological document available in the downloads tab. Disaggregating results at sub-national level is not encouraged because estimates will suffer from substantial sampling and measurement error.

### KIND OF DATA

Sample survey data [ssd]

### UNIT OF ANALYSIS

Individuals

## Scope

### NOTES

The FIES survey module includes the following questions to compute the FIES-based indicators:

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? (labelled as WORRIED)
2. You were unable to eat healthy and nutritious food? (labelled as HEALTHY)
3. You ate only a few kinds of foods? (labelled as FEWFOOD)
4. You had to skip a meal? (labelled as SKIPPED)
5. You ate less than you thought you should? (labelled as ATELESS)
6. Your household ran out of food? (labelled as RUNOUT)
7. You were hungry but did not eat? (labelled as HUNGRY)
8. You went without eating for a whole day? (labelled as WHLDAY)

Each of these questions has the following response options:

- Yes (coded as 1)
- No (coded as 0)
- Don't know / Refuse to answer (coded as NA)

The dataset includes derived FIES variables computed by FAO described in the documentation. It also contains demographic variables related to the number of adults and children in the household, age, education, area (urban/rural), gender, income and degree of urbanization.

#### TOPICS

Topic
SDGs
Food Access

#### KEYWORDS

Keyword
Food Insecurity Experience Scale
FIES
Sustainable Development Goals
SDG
Zero Hunger
End Hunger
SDG Indicator 2.1.2

## Coverage

#### GEOGRAPHIC COVERAGE

National

#### UNIVERSE

Non-institutionalized adult population (15 years of age or older) living in households with access to landline and/or mobile phones.

## Producers and sponsors

#### PRIMARY INVESTIGATORS

Name	Affiliation
Food and Agriculture Organization of the United Nations	United Nations

## Sampling

#### SAMPLING PROCEDURE

With some exceptions, all samples are probability based and nationally representative of the resident adult population. The coverage area is the entire country including rural areas, and the sampling frame represents the entire civilian, non-institutionalized, aged 15 and older population.

For more details on the overall sampling and data collection methodology, see the World poll methodology attached as a resource in the downloads tab. Specific sampling details for each country are also attached as technical documents in the downloads tab.

Exclusions: NA

Design effect: 1.38

#### WEIGHTING

The sample data was weighted to minimize bias in survey-based estimates. The weighting procedure was formulated based on the sample design and was carried out in multiple stages. A probability weight factor (base weight) was constructed to account for selection of telephone numbers from the respective frames and correct for unequal selection probabilities as a result of selecting one adult in landline households and for dual-users coming from both the landline and mobile frame. At the next step, the base weights were post-stratified to adjust for non-response and to match the weighted sample totals to known target population totals obtained from country level census data.

## Data collection

#### DATES OF DATA COLLECTION

Start	End
2024-08-12	2024-10-02

#### DATA COLLECTION MODE

Computer-Assisted Telephone Interviewing [CATI]

## data\_processing

#### DATA EDITING

Statistical validation assesses the quality of the FIES data collected by testing their consistency with the assumptions of the Rasch model. This analysis involves the interpretation of several statistics that reveal 1) items that do not perform well in a given context, 2) cases with highly erratic response patterns, 3) pairs of items that may be redundant, and 4) the proportion of total variance in the population that is accounted for by the measurement model.

#### METHODOLOGY NOTES

As part of the statistical disclosure control process, values for number of children and number of adults that were 10 or above, were recoded as "10+" and categories for area were combined into "urban/suburbs" and "towns/rural".

## data\_appraisal

#### ESTIMATES OF SAMPLING ERROR

The margin of error is estimated as 3.6 percentage points. By adding and subtracting this value to the result, the confidence interval at 95% level is obtained. The margin of error was calculated assuming a reported outcome of 50% (giving the maximum sampling variability for that sample size) and takes into account the design effect.

## Access policy

#### CONTACTS

Name	Affiliation	Email	URL
Food and Agriculture Organization of the United Nations, Statistics Division	Food and Agriculture Organization of the United Nations	Carlo.Cafiero@fao.org, FIES-help@fao.org	<a href="#">Link</a>

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The users shall not take any action with the purpose of identifying any individual entity (i.e. person, household, enterprise, etc.) in the micro dataset(s). If such a disclosure is made inadvertently, no use will be made of the information, and it will be reported immediately to FAO.

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## Disclaimer and copyrights

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The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

## Metadata production

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### DDI DOCUMENT ID

DDI\_EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS\_FAO

### PRODUCERS

Name	Abbreviation	Affiliation	Role
Statistics Division	ESS	Food and Agriculture Organization of the United Nations	Metadata producer and Metadata adapted for FAM
Development Data Group	DECDG	The World Bank	Metadata adapted for World Bank Microdata Library

### DDI DOCUMENT VERSION

Identical to a metadata (EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS) published on FAO microdata repository (<https://microdata.fao.org/index.php/catalog>). Some of the metadata fields have been edited.

**data\_dictionary**

Data file	Cases	variables
<b>EST_2024_FIES_v01_M_v01_A_ESS</b> This dataset contains the variables used to calculate the FIES-based indicator, demographic variables and some derived variables calculated by FAO from the survey.	1001	24



**Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS**

This dataset contains the variables used to calculate the FIES-based indicator, demographic variables and some derived variables calculated by FAO from the survey.

Cases: 1001

variables: 24

**variables**

ID	Name	Label	Question
53	Random_ID	Unique respondent identifier	
54	WORRIED	Worried you would not have enough food to eat because of a lack of money or other resources	
55	HEALTHY	Unable to eat healthy and nutritious food because of a lack of money or other resources	
56	FEWFOOD	Ate only a few kinds of foods because of a lack of money or other resources	
57	SKIPPED	Skipped a meal because there was not enough money or other resources to get food	
58	ATELESS	Ate less than you thought you should because of a lack of money or other resources	
59	RUNOUT	Household ran out of food because of a lack of money or other resources	
60	HUNGRY	Hungry but did not eat because there was not enough money or other resources for food?	
61	WHLDAY	Went without eating for a whole day because of a lack of money or other resources?	
62	wt	Post-stratification sampling weights	
63	year	Year when the GWP was administered in the country	
64	N_adults	Number of adults 15 years of age and above in household	
65	N_child	Number of children under 15 years of age in household	
66	Raw_score	Sum of Affirmative responses to FIES questions	
67	Raw_score_par	Estimated person parameters using the Rasch model	
68	Raw_score_par_error	Estimated person parameter errors using the Rasch model	
69	Prob_Mod_Sev	Probability of being moderately or severely food insecure	
70	Prob_sev	Probability of being severely food insecure	
71	Age	Age of the respondent	
72	Education	Education of the respondent	
73	Area	Area	
74	Gender	Gender of the respondent	
75	Income	Income quintile	
76	DEGURBA	Degree of Urbanisation	

total: 24



**RANDOM\_ID: Unique respondent identifier**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 1001 Invalid: 0 Minimum: 111384641 Maximum: 211108170 Mean: 160497639.535 Standard deviation: 28894067.52  
 Type: Continuous Decimal: 0 Width: 10 Range: 111384641 - 211108170 Format: Numeric

**WORRIED: Worried you would not have enough food to eat because of a lack of money or other resources**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 999 Invalid: 2  
 Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
0	No	838	83.9%
1	Yes	161	16.1%
Sysmiss		2	

**HEALTHY: Unable to eat healthy and nutritious food because of a lack of money or other resources**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 996 Invalid: 5  
 Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
0	No	826	82.9%
1	Yes	170	17.1%
Sysmiss		5	

**FEWFOOD: Ate only a few kinds of foods because of a lack of money or other resources**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 999 Invalid: 2  
 Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

CATEGORIES

Value	Category	Cases	
0	No	795	79.6%
1	Yes	204	20.4%
Sysmiss		2	

**SKIPPED: Skipped a meal because there was not enough money or other resources to get food**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 999 Invalid: 2  
 Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

CATEGORIES

Value	Category	Cases	
0	No	924	92.5%
1	Yes	75	7.5%
Sysmiss		2	

**ATELESS: Ate less than you thought you should because of a lack of money or other resources**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 1000 Invalid: 1  
 Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

CATEGORIES

Value	Category	Cases	
0	No	894	89.4%
1	Yes	106	10.6%
Sysmiss		1	

### **RUNOUT: Household ran out of food because of a lack of money or other resources**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

#### **Overview**

Valid: 1000 Invalid: 1  
Type: Discrete Width: 12 Range: 0 - 1 Format: character

#### **Questions and instructions**

##### CATEGORIES

Value	Category	Cases	
0	No	945	94.5%
1	Yes	55	5.5%
Sysmiss		1	

### **HUNGRY: Hungry but did not eat because there was not enough money or other resources for food?**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

#### **Overview**

Valid: 1000 Invalid: 1  
Type: Discrete Width: 12 Range: 0 - 1 Format: character

#### **Questions and instructions**

##### CATEGORIES

Value	Category	Cases	
0	No	957	95.7%
1	Yes	43	4.3%
Sysmiss		1	

### **WHLDAY: Went without eating for a whole day because of a lack of money or other resources?**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 1000 Invalid: 1  
 Type: Discrete Width: 12 Range: 0 - 1 Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
0	No	967	96.7%
1	Yes	33	3.3%
Sysmiss		1	

**WT: Post-stratification sampling weights**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 1001 Invalid: 0 Minimum: 0.436 Maximum: 3.84 Mean: 1 Standard deviation: 0.615  
 Type: Continuous Decimal: 0 Width: 10 Range: 0.436043738341457 - 3.83965671344404 Format: Numeric  
 Weighted: yes

**YEAR: Year when the GWP was administered in the country**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 1001 Invalid: 0 Minimum: 2024 Maximum: 2024 Mean: 2024 Standard deviation: 0  
 Type: Continuous Decimal: 0 Width: 10 Range: 2024 - 2024 Format: Numeric

**N\_ADULTS: Number of adults 15 years of age and above in household**

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

**Overview**

Valid: 999 Invalid: 2  
 Type: Discrete Width: 12 Range: 1 - 6 Format: character

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
01	01	261	26.1%
02	02	505	50.6%
03	03	153	15.3%

04	04	63	6.3%
05	05	11	1.1%
06	06	6	0.6%
Sysmiss		2	

## N\_CHILD: Number of children under 15 years of age in household

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

### Overview

Valid: 998 Invalid: 3  
Type: Discrete Width: 12 Range: 0 - 9 Format: character

### Questions and instructions

#### CATEGORIES

Value	Category	Cases	
00	00	647	64.8%
01	01	196	19.6%
02	02	117	11.7%
03	03	32	3.2%
04	04	4	0.4%
05	05	1	0.1%
09	09	1	0.1%
Sysmiss		3	

## RAW\_SCORE: Sum of Affirmative responses to FIES questions

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

### Overview

Valid: 993 Invalid: 8 Minimum: 0 Maximum: 8 Mean: 0.843 Standard deviation: 1.719  
Type: Continuous Decimal: 0 Width: 10 Range: 0 - 8 Format: Numeric

## RAW\_SCORE\_PAR: Estimated person parameters using the Rasch model

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

### Overview

Valid: 993 Invalid: 8 Minimum: -2.264 Maximum: 2.352 Mean: -1.782 Standard deviation: 0.98  
Type: Continuous Decimal: 0 Width: 10 Range: -2.26428484958857 - 2.35220791048787 Format: Numeric

**RAW\_SCORE\_PAR\_ERROR: Estimated person parameter errors using the Rasch model****Data file:** EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS**Overview**

Valid: 993 Invalid: 8 Minimum: 0.558 Maximum: 0.955 Mean: 0.869 Standard deviation: 0.148  
 Type: Continuous Decimal: 0 Width: 10 Range: 0.557958643828129 - 0.955148747967987 Format: Numeric

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**PROB\_MOD\_SEV: Probability of being moderately or severely food insecure****Data file:** EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS**Overview**

Valid: 993 Invalid: 8 Minimum: 0 Maximum: 0.997 Mean: 0.106 Standard deviation: 0.258  
 Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0.99735728371434 Format: Numeric

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**PROB\_SEV: Probability of being severely food insecure****Data file:** EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS**Overview**

Valid: 993 Invalid: 8 Minimum: 0 Maximum: 0.691 Mean: 0.016 Standard deviation: 0.093  
 Type: Continuous Decimal: 0 Width: 10 Range: 0 - 0.691129995195844 Format: Numeric

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**AGE: Age of the respondent****Data file:** EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS**Overview**

Valid: 1001 Invalid: 0 Minimum: 15 Maximum: 100 Mean: 48.249 Standard deviation: 15.486  
 Type: Continuous Decimal: 0 Width: 10 Range: 15 - 100 Format: Numeric

---

**EDUCATION: Education of the respondent****Data file:** EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS**Overview**

Valid: 999 Invalid: 2  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 3 Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
1	Elementary_or_less	72	7.2%
2	Secondary	501	50.2%
3	College	426	42.6%

Sysmiss		2	
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## AREA: Area

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

### Overview

Valid: 1001 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

### Questions and instructions

#### CATEGORIES

Value	Category	Cases	
1	Urban/Suburbs	453	45.3%
2	Towns/Rural	548	54.7%
Sysmiss		0	

## GENDER: Gender of the respondent

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

### Overview

Valid: 1001 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

### Questions and instructions

#### CATEGORIES

Value	Category	Cases	
1	Male	414	41.4%
2	Female	587	58.6%
Sysmiss		0	

## INCOME: Income quintile

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

### Overview

Valid: 1001 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 5 Format: Numeric

## Questions and instructions

### CATEGORIES

Value	Category	Cases	
1	Poorest_20%	189	18.9%
2	Second_20%	189	18.9%
3	Middle_20%	203	20.3%
4	Fourth_20%	210	21%
5	Richest_20%	210	21%
Sysmiss		0	

## DEGURBA: Degree of Urbanisation

Data file: EST\_2024\_FIES\_v01\_M\_v01\_A\_ESS

### Overview

Valid: 1001 Invalid: 0

Type: Discrete Decimal: 0 Width: 12 Range: 1 - 4 Format: Numeric

## Questions and instructions

### CATEGORIES

Value	Category	Cases	
1	Rural areas	356	35.6%
2	Towns and semi-dense areas	170	17%
3	Cities	434	43.4%
4	Not available	41	4.1%
Sysmiss		0	

# study\_resources

## questionnaires

### FIES questions

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title FIES questions  
description This document contains the 8 FIES questions as they were asked during the survey.  
filename FIES\_Questions.pdf

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## technical\_documents

### Derived variables and methodology to compute indicator 2.1.2

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title Derived variables and methodology to compute indicator 2.1.2  
description This document contains the methodology of the derived variables and the computation of the indicator 2.1.2.  
filename Derived\_variables\_and\_Computation\_indicator.pdf

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### Degree of Urbanisation Variable

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title Degree of Urbanisation Variable  
description This document contains an explanation on the degree of urbanisation from Gallup, an harmonized variable for cross-country survey research.  
filename World\_Poll\_Degree\_of\_Urbanisation\_2024\_FAO.pdf

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### World Poll Methodology

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title World Poll Methodology  
description This document contains the description of the methodology used for the survey.  
filename Estonia\_2024\_Methodology.pdf

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