

# Food Insecurity Experience Scale 2021

**FAO Statistics Division**

report\_generated\_on: January 18, 2023

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

## Identification

### SURVEY ID NUMBER

JPN\_2021\_FIES\_v01\_M\_v01\_A\_OCS

### TITLE

Food Insecurity Experience Scale 2021

### COUNTRY/ECONOMY

Name	Country code
Japan	JPN

### 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 <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>.

The FIES-based indicators are compiled using the FIES survey module, containing 8 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 documentations 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

This dataset contains demographic variables related to number of adults and children in the household, age, education, area (urban/rural), gender, and income. Also, 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?
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?

## TOPICS

Topic
SDGs
Food Access

## KEYWORDS

Keyword
Food Insecurity
SDG

## Coverage

## GEOGRAPHIC COVERAGE

National coverage

## UNIVERSE

Individuals of 15 years or older with access to landline and/or mobile phones.

## Producers and sponsors

## PRIMARY INVESTIGATORS

Name	Affiliation
FAO Statistics Division	FAO

## Sampling

## SAMPLING PROCEDURE

A dual frame (landline and mobile phone frames) was used to complete 1,010 telephone surveys. About 65% of the completes were from the mobile phone sample whereas landline completes accounted for the remaining 35%.

Exclusions: For landline RDD, excluded 12 municipalities near the nuclear power plant in Fukushima. These areas were designated as not-to-call districts due to the devastation from the 2011 disasters. The exclusion represents less than 1% of the population of Japan.

Design effect: 1.36

## 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
2021-08-19	2021-10-27

## DATA COLLECTION MODE

## 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.

## data\_appraisal

### ESTIMATES OF SAMPLING ERROR

The margin of error is estimated as 3.6. This is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect.

### DATA APPRAISAL

The variable WHLDAY was not considered in the computation of the published FAO food insecurity indicator based on FIES due to the results of the validation process. The variable WORRIED was not considered in the computation of the published FAO food insecurity indicator based on FIES due to the results of the validation process.

## Access policy

### CONTACTS

Name	Affiliation	Email	URL
FAO Statistics Division	FAO	Carlo.Cafiero@fao.org	<a href="#">Link</a>

### CONFIDENTIALITY

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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Micro datasets disseminated by FAO shall only be allowed for research and statistical purposes. Any user which requests access working for a commercial company will not be granted access to any micro dataset regardless of their specified purpose. Users requesting access to any datasets must agree to the following minimal conditions:

- The micro dataset will only be used for statistical and/or research purposes;
- Any results derived from the micro dataset will be used solely for reporting aggregated information, and not for any specific individual entities or data subjects;
- 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;
- The micro dataset cannot be re-disseminated by users or shared with anyone other than the individuals that are granted access to the micro dataset by FAO.

## Disclaimer and copyrights

### DISCLAIMER

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\_JPN\_2021\_FIES\_v01\_M\_v01\_A\_OCS

### PRODUCERS

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Metadata producer
Development Economics Data Group	DECDG	The World Bank	Metadata adapted for World Bank Microdata Library

### DATE OF METADATA PRODUCTION

2023-01-17

### DDI DOCUMENT VERSION

Version 01 (January 2023): This metadata was downloaded from the FAO website (<https://microdata.fao.org/index.php/catalog>) and it is identical to FAO version (JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS). The following two metadata fields were edited - Document ID and Survey ID.

**data\_dictionary**

Data file	Cases	variables
<b>JPN_2021_FIES_v01_EN_M_v01_A_OCS</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.	0	21



**Data file: JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**

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: 0

variables: 21

**variables**

ID	Name	Label	Question
V1	Random_ID	Unique respondent identifier	
V2	HEALTHY	Unable to eat healthy and nutritious food because of a lack of money or other resources	
V3	FEWFOOD	Ate only a few kinds of foods because of a lack of money or other resources	
V4	SKIPPED	Skipped a meal because there was not enough money or other resources to get food	
V5	ATELESS	Ate less than you thought you should because of a lack of money or other resources	
V6	RUNOUT	Household ran out of food because of a lack of money or other resources	
V7	HUNGRY	Hungry but did not eat because there was not enough money or other resources for food?	
V8	wt	Post-stratification sampling weights	
V9	year	Year when the study was administered in the country	
V10	N_adults	Number of adults 15 years of age and above in household	
V11	N_child	Number of children under 15 years of age in household	
V12	Raw_score	Sum of Affirmative responses to FIES questions	
V13	Raw_score_par	Estimated person parameters using the Rasch model	
V14	Raw_score_par_error	Estimated person parameter errors using the Rasch model	
V15	Prob_Mod_Sev	Probability of being moderately or severely food insecure	
V16	Prob_sev	Probability of being severely food insecure	
V17	Age	Age of the respondent	
V18	Education	Education of the respondent	
V19	Area	Area	
V20	Gender	Gender of the respondent	
V21	Income	Income quintile	

total: 21





**RANDOM\_ID: Unique respondent identifier****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Continuous    Decimal: 0    Range: -    Format: Numeric

**N\_ADULTS: Number of adults 15 years of age and above in household****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Discrete    Width: 8    Range: -    Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
01	01
02	02
03	03
04	04
05	05
06	06
07	07
08	08

**HEALTHY: Unable to eat healthy and nutritious food because of a lack of money or other resources****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Discrete    Width: 8    Range: -    Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
1	Yes

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

Data file: JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

**Overview**

Valid: 0 Invalid: 0

Type: Discrete Width: 8 Range: - Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
1	Yes

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

Data file: JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

**Overview**

Valid: 0 Invalid: 0

Type: Discrete Width: 8 Range: - Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
1	Yes

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

Data file: JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

**Overview**

Valid: 0 Invalid: 0

Type: Discrete Width: 8 Range: - Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
1	Yes

**RUNOUT: Household ran out of food because of a lack of money or other resources****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Discrete    Width: 8    Range: -    Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
1	Yes

**HUNGRY: Hungry but did not eat because there was not enough money or other resources for food?****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Discrete    Width: 8    Range: -    Format: character

**Questions and instructions**

## CATEGORIES

Value	Category
1	Yes

**WT: Post-stratification sampling weights****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Continuous    Decimal: 0    Range: -    Format: Numeric

**YEAR: Year when the study was administered in the country****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Discrete    Decimal: 0    Range: 1 - 1    Format: Numeric

## Questions and instructions

### CATEGORIES

Value	Category
1	2021

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

Data file: JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

### Overview

Valid: 0 Invalid: 0

Type: Discrete Width: 8 Range: - Format: character

## Questions and instructions

### CATEGORIES

Value	Category
00	00
01	01
02	02
03	03
04	04

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

Data file: JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

### Overview

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Range: - Format: Numeric

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

Data file: JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

### Overview

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Range: - Format: Numeric

## **RAW\_SCORE\_PAR\_ERROR: Estimated person parameter errors using the Rasch model**

Data file: JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS

**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Range: - Format: Numeric

**PROB\_MOD\_SEV: Probability of being moderately or severely food insecure****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Range: - Format: Numeric

**PROB\_SEV: Probability of being severely food insecure****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Range: - Format: Numeric

**AGE: Age of the respondent****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Continuous Decimal: 0 Range: - Format: Numeric

**EDUCATION: Education of the respondent****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0 Invalid: 0

Type: Discrete Decimal: 0 Range: 1 - 5 Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category
1	Elementary_or_less
2	Secondary
3	College
4	Dont_know
5	Refused

**AREA: Area****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Discrete    Decimal: 0    Range: 1 - 5    Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category
1	(Refused)
2	Urban/Suburbs
3	Towns/Rural
4	Dont_know
5	Refused

**GENDER: Gender of the respondent****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Discrete    Decimal: 0    Range: 1 - 2    Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category
1	Male
2	Female

**INCOME: Income quintile****Data file:** JPN\_2021\_FIES\_v01\_EN\_M\_v01\_A\_OCS**Overview**

Valid: 0    Invalid: 0

Type: Discrete    Decimal: 0    Range: 1 - 5    Format: Numeric

## Questions and instructions

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### CATEGORIES

Value	Category
1	Poorest_20%
2	Second_20%
3	Middle_20%
4	Fourth_20%
5	Richest_20%

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# study\_resources

## questionnaires

### Food Insecurity Experience Scale: Questions

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title Food Insecurity Experience Scale: Questions  
language English  
filename FIES\_Questions.pdf

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## technical\_documents

### Computed variables at respondent level

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title Computed variables at respondent level  
language English  
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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