State of Palestine
Palestinian Central Bureau of Statistics

Household Expenditure and Consumption Survey (January – December 2023)

User's Guide

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Notice for Users

❖ Quick orientation on the weighting variables

The micro-data are distributed in two separate files, each with its own pair of weights:

Dataset group	Weighting variable	Purpose
West Bank - full year 2023	weight_wby_trim	Final calibrated and trimmed probability weight for all four quarters (Q1-Q4) in the West Bank.
	rw_wb	Relative (mean = 1) version of weight_wby_trim.
West Bank + Gaza Strip - first three quarters 2023	weight3q_trim	Final calibrated and trimmed probability weight for the pooled Q1-Q3 sample covering both regions.
	rw	Relative (mean = 1) version of weight3q_trim.

❖ The survey's key indicators are derived mainly from expenditure and consumption based variables. Because data collection in the Gaza Strip stopped entirely in the fourth quarter of 2023 due to the ongoing Israeli aggression, seasonality could not be incorporated for Gaza. Consequently, the Palestinian Central Bureau of Statistics was unable to release indicators at either the national level or Gaza Strip level.

Concepts and Definitions

This chapter presents the main concepts and definitions used in the survey. These concepts are defined in accordance with the glossary and guide statistical indicators issued by PCBS and certified on the latest international recommendations in statistics and consistent with international systems, taking into account the Palestinian labour market's circumstances.

Recording Period:

This refers to the temporal point during which data on household expenditure and consumption are recorded. It includes one month for record keeping and twelve months for the final interview on durable goods, and for education tuition, and 36 months for transportation.

Average Household Expenditure (Indicator):

This indicator measures the Palestinian average household expenditure on goods and services. By calculating the average amount of cash spent on the purchase of goods and services for living purposes, and the value of goods and service payments, or part of payments, received from an employer, and cash expenditure spent as taxes (non-commercial or non-industrial), gifts, contributions, interest on debts, and other non-consumption items during specific month.

Average Household Consumption (Indicator):

This indicator measures the Palestinian average household consumption of goods and services. By calculating the average amount of cash spent on the purchase of goods and services for living purposes, and the value of goods and service payments, or part of payments, received from an employer, and own-produced goods and food, including consumed quantities during the recording period, and imputed rent for owned house during a specific month.

Standard of Living (Indicator):

Indicator, which measures the share of food consumption of total consumption, by dividing the total consumption of food by the total consumption; households are distributed according to this ratio into three categories:
Better-off: where food consumption to total consumption is less than 30%.
Middle category: where food consumption to total consumption is between 30-44%.
Worse-off: where food consumption to total consumption is between 45% or more.
It is worth mentioning that the consumption ratio in rich countries is 20%.

This indicator is based on the following assumption: the standard of living is identified by the proportion of consumption on food out of total consumption (Engel's Law of Poverty), thus, if the share of food increases, the shares of health, education, and housing decrease.

Main Source of Income:

The most consistent and regular income. The sources of income are:

- Wages and salaries.
- Net income for employers or self-employed.

- Net property income.
- Net current transfers.

Lorenz Curve:

This curve is usually used to measure inequalities in the distribution of consumption or income. To plot the curve, the units are first either arrayed individually or grouped in class intervals according to the appropriate independent variety. Then, the cumulative percentage of the number of areas (Y) is plotted against the cumulative percentage of population (X). For comparison, a diagonal line is drawn at 45 degrees to show the condition of equal distribution. The Gini concentration ratio measures the proportion of the total area under the diagonal that lies in the area between the diagonal and the Lorenz Curve.

Non- consumption Expenditures:

Interest on loans, fees and taxes, remittances (*zakat*, insurance).

Other Non-food Expenditures:

Financial and legal services, advertisement fees, copying services, translation and printing, writing and drawing equipment, tickets for traveling abroad, jewelry, watches, precious stones, etc.

Poverty line:

It refers to the estimation of poverty line that covers the household basic needs (shelter, clothing, and food), in addition to other needs including health care, education, transportation, personal care, and housekeeping supplies. The poverty lines have been adjusted to reflect the different consumption of households based on their composition (household size and the number of children).

Deep Poverty line:

It refers to covers household basic needs (shelters, clothes, and food).

Poverty Percentage (Indicator):

The share of the population whose income or consumption is below the poverty line, that is, the share of the population that cannot afford to buy a basic basket of goods. An analyst using several poverty lines, say one for poverty and one for extreme/deep poverty, can estimate the incidence of both poverty and extreme/deep poverty by Dividing the number of households living below the national poverty line by the total number of households within the surveyed community, multiplied by hundred.

Percentage of Poverty Gap (Indicator):

This indicator provides information on how far off poor households are from the poverty line. This measure captures the mean aggregate income or consumption shortfall relative to the poverty line across the whole population. It gives the total resources needed to bring all the poor

to the level of the poverty line. The amount that one would have to transfer to the poor under perfect targeting (i.e. each poor getting exactly the amount he/ she needs to be lifted out of poverty) to bring them all out of poverty.

Poverty Severity (Indicator):

The distance separating the poor from the poverty line, but also the inequality among the poor. That is, a higher weight is placed on those households who are farther away from the poverty line.

Income:

Cash or in-kind revenues to an individual or household within a given period of time: could be a week, a month, or a year.

1.2 Classifications

Classifications used in the process of collection and processing of statistical data adopted by PCBS, according to international standards and with the Palestinian privacy.

1. System of National Accounts (SNA), 2008.
2. Classification of Individual Consumption According to Purpose (COICOP), 2018. Is part of the SNA. It is used in three important statistical: Household Expenditure and Consumption Survey and Household Budget, consumer price indices, and the International Comparison Program for GDP and its component expenditures.

Methodology and Data Quality

Main Objectives:

Household Expenditure and Consumption Survey is designed to collect comprehensive data that supports the analysis and development of various socio-economic indicators. The following are the key objectives:

Understanding Consumption Expenditure Patterns:

- To analyze household consumption expenditure patterns and assess the impact of social variables on them.

Calculating Average Expenditures:

- To determine the average monthly and annual expenditures of individuals and households on various commodities and services.
- To identify factors affecting expenditure, such as educational levels, social status, and other demographic variables.

Assessing Poverty Levels and Living Standards:

- To obtain data on household consumption and expenditure levels that can be used to determine poverty thresholds.
- To analyze changes in living standards over time.

Supporting National Accounts:

- To provide data for national accounts concerning the final consumption of the household sector.

Updating Consumer Price Index Weights:

- To supply data that reflect the relative importance of consumer spending items used in the preparation of the Consumer Price Index (CPI).

Capturing Non-Cash Consumption:

- To access data on non-cash consumption, such as consumption of self-produced products and in-kind payments.

Understanding Income Sources and Asset Ownership:

- To identify sources of income generation.
- To assess household ownership of durable goods, tenure status, and agricultural property.

Examining Housing Characteristics:

- To study the characteristics of dwellings and the availability of services within them.

Survey Coverage and Data Collection

Data collection was disrupted in the Gaza Strip during the last quarter of 2023 due to the ongoing Israeli aggression, so the survey datasets are divided into two distinct groups based on geographic coverage and time period:

1. **West Bank Datasets (Full Year 2023):**
    - **Coverage:** West Bank region for the entire year of 2023.
    - **Purpose:** Provides comprehensive data for the West Bank, allowing for year-round analysis.
2. **Palestine Datasets (First Nine Months of 2023):**
    - **Coverage:** All of Palestine, including the West Bank, Gaza Strip, and Jerusalem J1.
    - **Time Period:** First three quarters (nine months) of 2023.
    - **Purpose:** Enables analysis of consumption and expenditure patterns across Palestine up to the point when data collection was halted.

Each dataset group has **its own specific weights** to account for the different time periods and regions covered, ensuring that the samples are representative of their respective populations.

Questionnaire Design

The data are collected during the registration month during the visit of the fieldworker to the household, and include the following sections:

First part: (cover page) this part records the necessary information of the household, date of visit, data on field and office staff, and number of family members by gender.

Second part: contains demographic and social questions; including health and education about household's members.

Third part: contains questions on the characteristics of the labor force about household's members.

Forth part: covers housing characteristics that cover many topics such as type of housing, number of rooms, house ownership, rental value, housing, electricity, water and sanitation. The main source of cooking fuel and heating. Housing distance from services such as transportation, education and health centers.

Fifth part: contains data on social assistances and adaptation strategies, which include the value of assistance received by the household or individuals, and the circumstances and trauma experienced by the household or a member.

Sixth part: contains questions of income and means of income generation as well as data on monthly and annual income from different sources at the individual level.

Questions were added to cover the indicators of the general and child Multidimensional Poverty indices, such as:

- ✓ Education; educational gap.
- ✓ Health; child health
- ✓ Housing Conditions: separated sleeping rooms for boys and girls.
- ✓ Personal Safety: theft or damages to property, domestic violence, occupation violence.
- ✓ Personal Freedom: freedom of movement & speech, arbitrary detention, control over women income, women participation in labor market, women enrolled in higher education.
- ✓ Social Protection: employment benefits, pension, social transfers.
- ✓ Social Participation: membership in clubs or (professional or service) associations, visit to relatives, friends or co-workers, help received/given, cultural practice
- ✓ Ownership and use of own assets: confiscation of land or property, Use of agricultural land or other properties.

Finally, the most critical Part, which pertains to commodities and services recorded in the registration book (diary) given to the household. This section includes detailed information such as the description of each good or service that is purchased and consumed, the unit of measurement (e.g., kilogram, liter, or unit), the quantity consumed, and its corresponding value.

List of Goods

The classification of the list of commodities is based on the recommendation of the United Nations for the SNA under the name Classification of Individual Consumption according to Purpose, where it was used to classify the goods according to their groups, and the coding of the goods and groups in the questionnaire is an internal coding prepared by project management to facilitate the work of fieldworkers. The list includes 55 groups of expenditure and consumption, with each given a sequence number based on its importance to the household, starting with food goods, clothing groups, dwelling, medical treatment, transportation, communication, and lastly, durable goods. Each group consists of important goods. Groups from (1-21) include goods pertinent to food, drinks, and tobacco and cigarettes. Group 22 includes goods that are home-produced and consumed by the household. Groups (23-45) include all items except food, drinks, and tobacco and cigarettes. Groups (50-55) include durable goods. The data are collected based on different reference periods to represent expenditure during one year.

Registration Book

The registration book includes instructions and examples on how to record consumption and expenditure items. The form includes columns:

- Monetary: If the good is purchased, or in kind: if the item is self-produced.
- Title of the service or the good
- Quantity
- Unit of measurement (kilogram, liter, number)
- Value

Data Set Linkage and Key Variables

To facilitate comprehensive analysis and ensure data integrity, the survey data are organized into several datasets at different levels, each containing specific information collected from

households and individuals. Key variables are used across these datasets to allow accurate linkage between them.

Key Variables for Data Linkage

ID00: Household Identifier

- ✓ Unique identifier for each household (questionnaire serial number in the sample).
- ✓ Used as the primary key variable to link household-level datasets.

D1: Individual Identifier

- ✓ Unique identifier for each individual within a household.
- ✓ When combined with ID00, it uniquely identifies individuals across datasets.
- ✓ The combination of ID00 and D1 forms a composite key that serves as a key variable for individual-level data linkage.

Organized Datasets Information

The survey data are organized into several datasets at different levels to capture comprehensive information on households and individuals. Household-level datasets such as hhdata_wb and hhdata_3Qs contain identification information, housing characteristics, and details on social assistance and coping strategies. The main_wb and main_3Qs datasets provide aggregated expenditure values for main consumption groups, while the items_wb and items_3Qs datasets offer detailed expenditures by item code.

At the individual level, datasets like indata_wb and indata_3Qs include demographic and social characteristics and labor force information. Income data are captured in mincome_wb, mincome_3Qs, yincome_wb, and yincome_3Qs, providing insights into monthly and annual income sources for individuals.

Key variables such as ID00, D1, and ItemCode are used across these datasets to facilitate accurate data linkage and analysis.

Datasets and Their Levels

Dataset Name	Level	Content	Key Variables
hhdata_wb hhdata_3Qs	Household Level	- Identification Information - Housing Characteristics - Social Assistance and Coping Strategies	ID00
main_wb main_3Qs	Household Level	- Aggregated Expenditure Values for Main Consumption Groups	ID00
items_wb items_3Qs	Household Level (Item Level)	- Detailed Expenditures by Item Code - Quantity, Value, Unit, Type of Expenditure	ID00, ItemCode
indata_wb indata_3Qs	Individual Level	- Demographic and Social Characteristics - Labor Force Characteristics	ID00, D1

mincome_wb mincome_3Qs	Individual Level	- Monthly Individual Income from Various Sources	ID00, D1
yincome_wb yincome_3Qs	Individual Level	- Annual Individual Income from Various Sources	ID00, D1

Key Variables and Their Roles

Variable	Level	Description	Role in Data Linkage
ID00	Household	Unique household identifier	Primary key for household-level datasets
D1	Individual	Individual identifier within the household	Combined with ID00 to uniquely identify individuals
ItemCode	Item within Household	Code for specific goods or services	Identifies items in household expenditure datasets

Sample and Frame

Target Population

The target population consists of all Palestinian households and individuals who were living normally with their households in the State of Palestine in 2023.

Sampling Frame

The sampling frame is based on a comprehensive sample selected from the Population, Housing, and Establishment Census, 2017. This comprehensive sample consists of geographically proximate areas (average of 150 households per area), known as enumeration areas (EAs) used in the census. These enumeration areas are used as primary sampling units (PSUs) in the first stage of the sampling selection.

Sample Size

The sample size for the Palestinian Expenditure and Consumption Survey, 2023 was 7,032 households for the entire year; 4,992 for the West Bank and 2,040 for Gaza Strip. The non-response rate was assumed based on data from 2016/2017 for each governorate.

Sample Design

The sample is a two-stage stratified cluster random sample:

- First stage: Selection of a stratified random sample of 586 enumeration areas.
- Second stage: Selection of a systematic random sample of 12 households from each enumeration area selected in the first stage.

The enumeration areas were divided into four quarters, with each quarter's sample including all design strata as much as possible (governorate and locality type).

Sample Strata

The population was divided into strata as follows:

1. Governorate.
2. Locality type (urban, rural, refugee camps).

Sample Allocation

The sample was distributed using the Neyman allocation method, where the distribution relied on specific parameters such as the mean and standard deviation.

Publication Domains

Data can be published at the following levels:

1. Quarterly data can be published for the State of Palestine and by region (West Bank and Gaza Strip) after each quarter.
2. Annual survey data can be published at the governorate level upon completion of the survey.

Weights Calculation

The weight of a statistical unit (sampling unit) is defined as the reciprocal of the probability of selecting that unit. The survey sample is a stratified, clustered, systematic random sample implemented in two stages. During the first stage, the weight of the enumeration areas is determined based on the probability of selecting each area. In the second stage, the household weight is calculated within each selected enumeration area. The initial household weight is obtained by multiplying the first stage weight by the second stage weight. These weights are subsequently adjusted using mid-2023 household estimates, with the adjustment categories being the strata (governorate and type of locality). This process yields the final household weight. An additional stage was introduced to calculate the weights using the RIM (Revised Iterative Method) algorithm, which is employed in many statistical applications to enhance estimates and model parameters in distribution models.

Weights Used: Definition & Methodology

weightWBY_trim is the final, production-ready sampling weight for any 2023 estimates that cover the entire calendar year within the West Bank only. Starting from the original design weight, it first absorbs the quarter-specific selection probabilities, then undergoes a non-response-adjustment step, and finally a generalised-regression (GREG) calibration so that weighted counts of households and persons exactly match the official population benchmarks for every (Governorate × locality-type) stratum. Because extreme weights inflate variances, the calibrated values are symmetrically trimmed (Winsorised) at the tails and re-calibrated; the resulting variable, weightWBY_trim, still satisfies all benchmark totals while yielding a lower design effect. It is defined only for records where Region = "WB" and is set to system-missing for Gaza cases.

rw_wb is the relative (mean-one) counterpart of weightWBY_trim that is created in the micro-data for software convenience. It is computed as the weightWBY_trim divided by its arithmetic mean. Dividing each household's weight by this overall mean rescales the weights so that the

new variable rw_wb still preserves every household's relative influence but now has a grand mean of 1. In survey practice this is called a relative (or mean-one) weight and is often preferred by software that treats weights as frequency multipliers while leaving point estimates unchanged, so its grand mean equals 1 while the proportional influence of every household remains unchanged. Using rw_wb instead of the raw weight leaves all point estimates identical and often improves numerical stability in modelling commands that interpret weights as frequency multipliers. As with its parent weight, rw_wb is populated only for West Bank observations.

weight3Q_trim is the final analytical weight for the combined West Bank + Gaza dataset that pools the first three quarters of 2023 (Q1–Q3). The construction pipeline mirrors the annual West Bank weight but stops after quarter 3: (1) apply the quarter-coverage factor to obtain weight3Q (design weight for the reduced sample); (2) adjust for unit non-response; (3) calibrate to household and person totals by (Governorate × locality-type) using the benchmark file; (4) trim extreme values and re-calibrate so that all constraints continue to hold. weight3Q_trim should be used for every estimate that combines West Bank and Gaza Strip over Q1–Q3; it is system-missing for Q4 interviews (quarter_resp = 4) because those cases were not part of the three-quarter analysis frame.

rw is the relative version of weight3Q_trim, rescaled so that its overall mean equals 1. It is obtained via dividing the weight3Q_trim by its arithmetic mean. Preserving all original sampling proportions while easing variance-estimation routines that prefer mean-one weights. rw exists for every Q1–Q3 record in both regions and is missing for Q4 observations, mirroring the availability pattern of weight3Q_trim.

Fieldwork Operations

Training and Hiring the fieldwork team:

The team was called to work on the survey based on the final exam results and the evaluation of the trainees' performance during the training course, considering their attendance and participation. Training started on Monday, 12/12/2022, and ended on Thursday, 22/12/2022, which lasted for 9 days. The total number of trainees was 61 in the West Bank and 26 in Gaza Strip, where some withdrew at the beginning of the course, for which replacements were called in. The training was unified and centralized, conducted via videoconference for Gaza Strip, and led by a group of trainers specialized in their respective subjects (education, labor, housing… etc.). The training covered statistical knowledge, the questionnaire, the registration book, the registration mechanism, conducting interviews, and using maps.

The team was distributed according to the sample for each governorate. The total number of candidates for work was 61 fieldworkers in the West Bank, including 12 reserve fieldworkers, 9 supervisors, and 1 editor for Jerusalem J1. In Gaza Strip, the team consisted of 26 fieldworkers, including 6 reserve fieldworkers and 3 supervisors.

Data Collection

Data collection for the Household Expenditure and Consumption Survey, 2023 was conducted electronically via a custom application on tablets, reflecting the survey questionnaire. This

application included initial electronic auditing rules linking all questionnaire sections. Data collection began on Monday, 02/01/2023, and ended on Wednesday, 10/01/2024, in the West Bank. For Gaza Strip, data collection ceased on 06/10/2023 due to Israeli aggression. For the registration (diary) book that remains with the household, entries were initially written manually on paper by the household, and during subsequent visits (8-10 visits per month), the fieldworker ensured the recorded data's accuracy and promptly entered them into the application. In Jerusalem J1 areas, data collection remained manual using paper forms due to Israeli occupation restrictions.

Field Supervision and Editing

PCBS fieldworkers made regular visits to households during the registration period, ranging from 8-10 visits per month, to obtain more reliable data. There were also periodic field and office visits by project management and Technical Committee members, distributed across governorates, totaling about 8-15 visits per month.

Electronic Auditing, Office Editing, and Coding

Electronic Auditing:

Tablets were used for data collection through an application reflecting the survey questionnaire, incorporating initial automatic audit rules for real-time data transfer to the central database. During this phase, initial audit rules enhanced data reliability by addressing potential errors during data collection through:

- Validating responses in real-time to ensure they fall within expected ranges or formats.
- Enforcing mandatory questions, preventing progress until all required fields are completed.
- Automatically flagging inconsistent or abnormal responses with a note for the fieldworker to review and verify.

Office Editing:

For Jerusalem J1 forms, they were submitted weekly to the central office editor for review, ensuring data accuracy and consistency between sections, and addressing any inconsistent or abnormal values with fieldworkers. The reviewed forms were then handed over to the coding Division and subsequently to the data entry Division.

Data Processing

Tablet Application and Data Entry Platform

To facilitate data collection, the survey form was developed as a tablet application linked to the sample. This user-friendly interface allowed fieldworkers to navigate the form easily, ensuring

accurate and consistent data entry. Integrated GPS and GIS technologies provided real-time location tracking to help fieldworkers identify household units.

For paper forms used in Jerusalem J1, a data entry program mirrored the tablet application with automatic validation rules. Data entry was completed promptly after office editing and coding, enhancing data reliability by:

- Real-time validation of responses to ensure they fall within expected ranges or formats.
- Enforcing mandatory questions, preventing progress until all required fields are completed.
- Automatically flagging inconsistent or abnormal responses with a note for the fieldworker to review and verify.

Office Data Cleaning Techniques

Survey data were securely transferred to the central database in real-time, allowing for timely data processing. Data cleaning and quality assurance were performed using statistical software such as R (via RStudio), SPSS, and Excel.

To enhance efficiency and ensure transparency and reproducibility, Reproducible Analytical Pipelines (RAPs) were utilized. RAPs are automated workflows that streamline data processing tasks, reduce manual errors, and allow for consistent application of data cleaning procedures.

The data cleaning and quality assurance processes included:

Verifying Variable Types:

- Ensured that all variables within the databases had the correct data types and formats.

Detecting Outliers:

- Identified outlier values for both numerical and categorical variables using statistical methods.
- Checked relationships between variables to detect unexpected correlations or the absence of expected correlations.

Ensuring Data Consistency and Logical Coherence:

- Assessed the logical flow and consistency of responses across similar questions or sections.

Identifying and Addressing Missing Data:

- Verified missing data due to technical or human errors.

Any values that did not meet data quality standards were sent back to the field teams for verification and, if necessary, follow-up with households. The use of RAPs facilitated this feedback loop by efficiently documenting and tracking data issues.

Results Extraction and Tabulation

Key indicators on consumption, expenditure, and poverty were derived using R and SPSS, then tabulated according to dissemination standards for publication on the PCBS website. By

employing RAPs in the analysis phase, the team ensured that the generation of results was efficient, reproducible, and transparent.
These indicators were linked to significant social, demographic, and economic factors to provide a clear understanding of their interrelationships.

Quality

Accuracy

The examination of data accuracy includes multiple aspects, the most recognized is sampling errors which assesses accuracy due to the use of the sample, and the non-sampling errors which occur due to the fieldwork team and due to the survey tools, in addition to the response rates in the survey. These errors have an effect on the variance and estimations, which varies from survey to another**.**

Sampling Errors

Data in the survey are affected by sampling errors due to using a sample rather than a full census of the study population units; leading to differences from the true values expected from censuses. The variances were calculated for the survey's main indicators.

Data on calculation of variances did not reveal any problem in the dissemination of data at the level of the West Bank level.

Non-Sampling Errors

Non-sampling errors can occur at all stages of project implementation, including during data collection and entry. These errors can be summarized as non-response errors, response errors (from respondents), interview errors (from fieldworkers), and data-entry errors. To prevent these errors and mitigate their impact, significant efforts were made through extensive training of fieldworkers on how to conduct interviews and use the tablet application, which included initial automatic audit rules for questions. The training covered the dos and don'ts during interviews, with practical and theoretical exercises conducted during the training sessions. Additionally, fieldworkers were provided with a manual booklet containing key questionnaire questions, the mechanism for filling out the questionnaire, and methods for dealing with respondents to reduce refusal rates and ensure accurate and unbiased data. Data entry staff were also trained on the data entry program, which was tested before the data entry process began.

For data entry errors related to the Jerusalem J1 forms, which constitute no more than 5% of the sample, the data entry program was designed with initial automatic audit rules for questions. Data entry personnel were selected for their competence and trained on the technical and procedural aspects of data entry. Project management regularly verified and ensured the consistency and coherence of the data.

After completing the aforementioned audits, data consistency was examined using various specialized statistical techniques to ensure no significant errors affected data quality. This process led to the identification and correction of most errors not detected in earlier phases.

Response Rate

West Bank Survey (Full Year 2023)

A total of 4,992 households were reached as a representative sample in the West Bank, where the number of completed questionnaires amounted to 3,220 households. Weights were adjusted at the design strata level to account for the effects of refusal rates and non-responses.

Items of Interview Results in the West Bank (Full Year 2023)

Response, Non-Response Cases and Over Coverage	No. of cases
Household completed	3,220
Non-response cases	
Traveling households	92
No one at home	344
Refused to cooperate	826
No available information	39
Other	60
Over coverage cases	
Unit does not exist	24
Vacant Housing unit	387
Total sample size	**4,992**

Equations of responsiveness and failures to response:

Percentage of over coverage errors = $\frac{\text{Total cases of over coverage}}{\text{Number of cases of the original sample}} \times 100\%$

= 8.2%

The percentage of non-response = $\frac{\text{Total cases of non-response}}{\text{Sample net size}} \times 100\%$

= 29.7%

Net sample = original sample - (cases of over coverage) = 4,581

Response rate = 100% - the percentage of non-response.

= 70.3%

Palestine Survey (First Nine Months of 2023)

A total of 5,304 households were reached as a representative sample in Palestine, including the West Bank, Gaza Strip, and Jerusalem J1, where the number of completed questionnaires amounted to 3,607 households. Weights were adjusted at the design strata level to account for the effects of refusal rates and non-responses.

Items of Interview Results in Palestine (First Nine Months of 2023)

Response, Non-Response Cases and Over Coverage	No. of cases
Household completed	3,607
Non-response cases	
Traveling households	87
No one at home	281
Refused to cooperate	853
No available information	28
Other	42
Over coverage cases	
Unit does not exist	23
Vacant Housing unit	383
Total sample size	**5,304**

Equations of responsiveness and failures to response:

Percentage of over coverage errors = $\frac{\text{Total cases of over coverage}}{\text{Number of cases of the original sample}} \times 100\%$

= 7.7%

The percentage of non-response = $\frac{\text{Total cases of non-response}}{\text{Sample net size}} \times 100\%$

= 26.4%

Net sample = original sample - (cases of over coverage) = 4,898

Response rate = 100% - the percentage of non-response.

= 73.6%

Aggregation and Recoding of Variables for Analysis

To facilitate detailed analysis and ensure data consistency, several variables were recoded, and new categorical variables were created. The processing steps included aggregating expenditure items into groups, recoding variables for disaggregation, and integrating household demographic information.

Expenditure Groups

Expenditure items were aggregated into groups based on COICOP classifications and specific item codes. The aggregation process involved summing expenditures across relevant item codes for each group at the household level.

Key Expenditure Groups and Their Item Codes:

Variable Name	Variable Values (Item Codes)	Variable Description	Aggregation Hint
food_expenditure	Sum(grp1, grp2, grp3, grp4, grp5, grp6, grp7, grp8, grp9, grp10, grp11)	Total expenditure on food groups	Sum expenditures from grp1 to grp11 to calculate total food expenditure.
grp1	(101-144)	Monthly value of cash spent (NIS) - Bread and Cereals Group	
grp2	(201-229)	Monthly value of cash spent (NIS) - Meat and Poultry Group	
grp3	(301-310)	Monthly Expenditure value of cash spent (NIS) on Fish and Sea Products Group	
grp4	(402-425)	Monthly Expenditure value of cash spent (NIS) on Dairy Products and Eggs Group	
grp5	(501-509)	Monthly Expenditure value of cash spent (NIS) on Oils and Fats Group	
grp6	(601-629), (701-706), (801-806), (901-914)	Monthly Expenditure value of cash spent (NIS) on Fruits and Nuts Group	
grp7	(1001-1044), (1201-1206), (1301-1330), (1401-1406)	Monthly Expenditure value of cash spent (NIS) on Vegetables, Legumes, and Tubers Group	
grp8	(1501-1523)	Monthly Expenditure value of cash spent (NIS) on Sugar, Jam, Honey, Chocolate, and Confectionery Group	
grp9	(2001-2012)	Monthly Expenditure value of cash spent (NIS) on Non-Alcoholic Beverages Group	
grp10	(1601-1612), (1701-1754)	Monthly Expenditure value of cash spent (NIS) on salt, spices, and other foods not classified elsewhere Group	
grp11	(1801-1818), (1901-1902)	Monthly Expenditure value of cash spent (NIS) on prepared meals and beverages consumed outside the home	
grp12	(2201-2219), (2223-2229)	Monthly Consumption value (NIS) of self-produced food items	
food_consumption	Total food consumption	Sum(grp1, grp2, grp3, grp4, grp5, grp6, grp7, grp8, grp9, grp10, grp11, grp12)	Sum total food expenditure (food_expenditure) and consumption of self-produced food (grp12).
grp13	(2301-2320), (2401-2421), (2501-2524), (2601-2614), (2701-2714), (2801-2827)	Monthly Expenditure value of cash spent (NIS) on clothing and footwear	

grp14	(2902-2925) Including actual rent payment (H9_1_NIS) from household data	Monthly Expenditure value of cash spent (NIS) on housing (including actual rent payments)	Sum expenditures for actual rent payments using item codes 2902 to 2925. Include direct rent payments from household data (H9_1_NIS) if applicable.
grp15	(3001-3024), (3134-3148), (5001-5029), (5101-5141)	Monthly Expenditure value of cash spent (NIS) on furniture and household utensils	
grp16	(3230-3269)	Monthly Expenditure value of cash spent (NIS) on household maintenance supplies and services	
grp17	(3301-3329)	Monthly Expenditure value of cash spent (NIS) on medical care and health services	
grp18a	(3401-3420), (3501-3505), (3521), (3529-3532), (5201-5206), (5401)	Monthly Expenditure value of cash spent (NIS) on transportation services	
grp18b	(3506-3509), (3522-3527), (3533-3535), (5317-5319), (5352)	Monthly Expenditure value of cash spent (NIS) on communication services	
grp19	(3801-3835), (3633), (3637)	Monthly Expenditure value of cash spent (NIS) on education	
grp20	(3601-3632), (3634-3636), (3638-3639), (3701-3710), (5301-5315), (5320-5351), (5353-5356)	Monthly Expenditure value of cash spent (NIS) on recreational and cultural activities	
grp21	(4031-4068)	Monthly Expenditure value of cash spent (NIS) on personal care	
grp22	(2101-2110), (2117-2118), (1903)	Monthly Expenditure value of cash spent (NIS) on tobacco and cigarettes	
grp23	(2111-2116)	Monthly Expenditure value of cash spent (NIS) on alcoholic beverages	
grp24	(3901-3911), (4101-4104), (4201-4205), (5403-5410)	Monthly Expenditure value of cash spent (NIS) on miscellaneous non-food goods and services	
grp25	(2220-2222), (2230-2233)	Other non-food items from self-production group	
grp26	(Derived from household data H10_1_NIS)	Imputed rent for owner-occupied housing group	Use the estimated rent value (H10_1_NIS) from household data for owner-occupied housing.
total_consumption		Sum(grp1, grp2, grp3, grp4, grp5, grp6, grp7, grp8, grp9, grp10, grp11, grp12, grp13, grp14, grp15, grp16, grp17, grp18a, grp18b, grp19, grp20, grp21, grp22, grp23, grp24, grp25, grp26, grp30)	Sum total food consumption and total non-food consumption.
grp27	(4501, 4508–4509, 4513, 4517–4520)	Monthly Expenditure value of cash spent (NIS) on cash transfers paid	

grp28	(4412, 4415–4416)	Monthly Expenditure value of cash spent (NIS) on taxes	
grp29	(4301-4302), (4401-4411), (4413-4414), (4417), (4502-4503), (4510-4512), (4521-4523), (4514-4516)	Monthly Expenditure value of cash spent (NIS) on other non-consumption expenses	
grp30	(5501-5504)	Monthly Expenditure value of cash spent (NIS) on social protection services	
total_expenditure		Sum(grp1, grp2, grp3, grp4, grp5, grp6, grp7, grp8, grp9, grp10, grp11, grp13, grp14, grp15, grp16, grp17, grp18a, grp18b, grp19, grp20, grp21, grp22, grp23, grp24, grp27, grp28, grp29, grp30)	Sum total food expenditure and total non-food expenditure.

Additional Notes on Aggregation:

- ✓ For owner-occupied housing, the estimated rental value (H10_1_NIS) from household data was used to impute rent (Grp26).
- ✓ For housing expenditure (grp14), the actual rent payment (H9_1_NIS) from household data was included.
- ✓ Any missing values (NA) within groups were replaced with zeros to ensure accurate aggregation.

- Currency Conversion:
  - ✓ All amounts were converted to New Israeli Shekels (NIS) for consistency especially for the all rents.
  - ✓ Exchange rates were applied on monthly basis, for expenditures reported in other currencies.
  - ✓ When extracting indicators; numbers of households and individuals, relative weight should be used.

Monthly Exchange Rates for the year 2023

Month	Exchange Rate/JD to NIS	Exchange Rate/USD to NIS
January	4.86	3.44
February	4.99	3.54
March	5.11	3.62
April	5.11	3.62
May	5.17	3.67
June	5.13	3.64
July	5.18	3.67
August	5.28	3.74
September	5.38	3.82
October	5.59	3.96
November	5.36	3.80
December	5.18	3.67

Recoded Variables for Disaggregation

Several variables were recoded to simplify the analysis and create meaningful categories for disaggregation; the following are examples of the main recoded variables.

Refugee Status of Household Head (refugee_status_headhh)

(refugee_status_headhh) new code	New Description	Original D7 code
1	Refugee	1, 2
2	Not-refugee	3, 4

Main Source of Income (main_source_income)

(main_source_income) new code	New Description	Original I02 Codes
1	Agriculture, animal husbandry and fishing	1
2	Other Household Businesses	2
3	Wages and Salaries from Public Sector	3
4	Wages and Salaries from Private Sector	4
5	Wages and Salaries from Israeli Sector	5
6	Wages and Salaries from International Organizations	10
7	Transfers/Assistances	6, 7, 8, 9, 11, 14
8	Property Income/Other Sources	12, 13

Household Size Category (hhsize_category)

(hhsize_category) new code	New Description	Original QC3 Value
1	One Individual	1
2	2-3 Individuals	2 - 3
3	4-6 Individuals	4 - 6
4	7-9 Individuals	7 - 9
5	10 or more Individuals	10 or more