



Household Expenditures & Income Survey

2018 /2017

Survey Manual

1. General background on household expenditures and income survey

1.1 Introduction

The data provided by the Household Expenditures and Income Survey are considered one of the most important statistical data necessary for developing economic and social development programs and plans aimed at achieving the welfare and progress of society, as the household expenditures and income survey is one of the most important and largest periodic surveys carried out by statistical centers, because the data produced by this survey is the essential foundation for many studies and researches published by official and private agencies.

Since its establishment, the Department of Statistics has conducted several surveys of household expenditures and income, in the years 1966, 1980, 1986/1987, 1992, 1997, 2002/2003, 2006, 2008, 2010, 2013 and given the continuous changes in expenditure patterns, income levels and prices, in addition to internal and external population movements, it is necessary to update the household expenditures and income data from one period to another, hence the necessity to implement a survey of household expenditures and income in 2017/2018.

This document includes the main objectives of the survey, the design and withdrawal of the survey sample, the methodology followed in carrying out the survey, quality control of data as well as tabulation and publishing of the results.

2.1 The main objectives of the survey

1. Calculating average of annual income and expenditure of the household and the individual and identifying the relationship of the various social and demographic variables of the households such as gender, educational level, profession and other variables and their impact on the household's income and expenditures.
2. Studying the distribution of households and individuals according to income and expenditure categories and analyze the factors associated with that distribution.
3. Providing data on income and expenditure for the purpose of calculating poverty indicators, identifying characteristics of the poor and preparing poverty maps.
4. Provide weights data (scales) that reflect the relative importance of consumer expenditures items and that are used in preparing the consumer price index.
5. Provide a part of the data needed for the national accounts related to final consumption and income of the households sector.
6. Provide updated and comprehensive data on some important health indicators such as disability, chronic diseases, health insurance and other indicators.
7. Providing comprehensive and recent data on some important educational indicators such as education enrollment and educational services availability in terms of authority supervising the educational institution, the distance between the housing and the educational institution and overcrowding in the classroom.

2. Sample Survey

1.2 Survey framework

The General Population and Housing Census (2015) framework was adopted as a basis for drawing a sample for Household Expenditures and Income Survey for 2017, as this census provided a detailed framework for dwelling and households at various administrative levels in the Kingdom, where the kingdom is divided administratively into 12 governorates, each governorate consists of a number of districts, each district consists of one or more sub-districts, and in each sub-district there are a number of locality (cities and villages). Each locality was divided into a number of blocks, each with a number of dwellings with an average of 100 households.

Note that for the purposes of this survey, the following is excluded from the survey sample:

- Collective households, whether they live in collective housing, such as hospitals, prisons, children's villages, etc., or live in traditional housing, such as workers residing in an apartment of 6 individuals or more.
- Households of students residing in traditional housing, whether they formed a private or group households.
- Non-resident households in Jordan, and their presence during the survey period was within the sample households, whether Jordanian or from other nationalities.
- Furnished rented apartments for households to stay in for a few days.

2.2 Survey Sample Design

The Household Expenditures and Income Survey sample for the year 2017 was designed to serve the main objectives of the survey and give the required level of representation, as the sample was designed to be the represented results at the Kingdom level in each round and at the governorates, urban and rural levels in addition to the representation of Jordanians, Syrians and non-Jordanians at the end of the survey year.

In the design of the survey sample, a two-stage stratified cluster random sampling method was used. In the first phase, a sample of 2500 blocks was drawn from the framework of the Population and Housing Census (2015) allocated all over the Kingdom governorates, and the framework of these selected blocks was updated to reflect the number of Housing and households with the start of each survey round.

The second stage involved the drawing of a sample of the targeted households from each block based on the nationality of the head of the households, which numbered about (20,000) households, where 8 households were withdrawn from each block according to the following distribution:

- 4 Jordanian households
- 2 Syrian households
- 2 households from other nationality

Four alternative households has been added in each block to be used in case that the enumerator is unable to reach the original household for any reason, whether the household refuses to respond, the absence of a qualified individual in the household to provide data, or the Housing unit closed or empty at the time of the visit.

The table below shows the number of blocks and households by governorate:

Table (1): Distribution of blocks and households for household Expenditures and income survey sample by governorate

Governorate	Number of blocks	Number of households
Amman	702	5616
Balqa	152	1216
Zarqa	252	2016
Madaba	133	1064
Irbid	314	2512
Mafraq	145	1160
Jarash	135	1080
Ajlun	133	1064
Karak	139	1112
Tafiela	130	1040
Ma'an	132	1056
Aqaba	133	1064
Kingdom	2500	20000

The survey sample was distributed over 4 rounds each round covering 625 blocks and each round was divided into 9 periods and every period consists of 10 days each.

3.2 Calculation of weights and estimates

To obtain unbiased estimates from household expenditures and income survey data, it is necessary to establish weights for the sample data based on the probability of selection. The weight of the statistical unit (block) is defined as the mathematical inverse of the probability of choosing the unit. The household expenditures and income survey sample is a two-stage, random cluster stratified sample. Therefore, the weight of each stage is calculated for the process of selecting the statistical unit, and the primary household weight is the product of multiplying the weight of the two stages.

$$p_{gij} = \frac{k_g n_{gi}}{N_g} \times \frac{m_{gij}}{n'_{gij}} \quad [1]$$

Where:

k_g the number of selected blocks in each governorate (according to Table 1).

n_{gi} the number of household in the block from the 2015 census.

N_g It is the total number of household in each governorate from the 2015 census.

m_{gij} the number of households interviewed in the block by nationality.

n'_{gij} the number of registered household in block inventory lists by nationality.

To obtain unbiased estimates and for the sample estimates to be representative of the community, it is necessary to multiply the data by the sampling weight of each w_{gij} household which is equal to the inverse of the probability of drawing or selection.

$$w_{gij} = \frac{N_g}{k_g n_{gi}} \times \frac{n'_{gij}}{m_{gij}} \quad [2]$$

It is also important to adjust the weights to take into account the percentage of the sample households that have been replaced by alternative households so that the basic weight is multiplied by the adjustment factor, and its equation is:

$$n''_{gij} = n'_{gij} \frac{(m_{gi} - r_{gi})}{m_{gi}}$$

Where:

n'_{gij} = Number of household registered in block inventory lists by nationality.

m_{gi} = Number of selected households in the block by nationality.

r_{gi} = Number of alternative households in the block, by nationality.

3. The methodology of Household Expenditures & Income Survey

1.3 Survey data collection mechanism

The implementation of this type of surveys nature is difficult and complicated, as it deals with issues of expenditure, consumption and income, and is subject to interviewing households and asking about these variables that are characterized by sensitivity, as these variables are vulnerable to seasonality during months or seasons of the year, there are goods and services that are spent on months Certain parts of the year more than others, which requires monitoring expenditure and income throughout the year to capture all seasonal conditions, which means following up the field implementation for a full year and the consequent effort, time and high costs, just as the nature of the household Expenditures & Income Survey differs from other household surveys, as the household interview in this survey does not end with one visit but rather requires a number of visits to follow the household during the specified period in order to collect data for all parts of the questionnaire.

The new methodology of household Expenditures & Income Survey is based on the follow-up each of the household sample for several visits not exceeding five visits per household during a period of 10 days only, during which the data of all survey variables are met from the characteristics of the house, data of individuals, expenditure and income in all its details, and in the next 10 days new households assign to the researcher, and so on over the entire reference period of the survey which lasts for a full year. Also, the data collected from households is daily entered at specialized centers in the governorates and any error contained in the questionnaire is corrected during the next visit to the households. The field work of Household Expenditures & Income Survey began on 1/8/2017 and continued for a full year as it ended on 31/7/2018.

2.3 Basics of the new methodology

- Developing the survey questionnaire to serve the desired objectives of the survey through:
 - Amending the model of collection food expenditure data to depend on the question about household consumption as an input to identify their expenditure during the reference time period, instead of registering household purchases during a specific time period, which increased the accuracy of expenditure data.

- Add a special model for social protection to identify the aid and supports that households receive from various government and private agencies.
- Add a special model for durable goods to calculate cash flows for the purpose of poverty accounts.
- Add a special model for Syrian refugees outside the camps.
- Survey sample distribution throughout the year, where each of the sample household is monitored for multiple visits not exceeding 5 visits, as this mechanism worked to raise response rates by alleviating the burden of repeated household visits, where the response rate reached about 96%.
- Entering the data collected from the field on a daily basis and reviewed by a specialized team to monitor the data quality and thus speed in issuing the final results of the survey.

3.3 Field visits and office work program

A timetable for field visits has been prepared with (4-5) household visits within 10 days, so every 10 days the team will have to visit two blocks from the specific sample for each team to collect the questionnaire data. Each team consists from supervisor and two enumerators, and then the collected data from the field is entered daily on a specified program for the data entry in the office and after entering data the program works to show a list of errors mentioned in the questionnaire for each household (if any) according to the rules of consistency and logic, where the data supervisor in the office reviews with team all the errors mentioned in their questionnaires and then on the next visit to the household the enumerator corrects the errors mentioned in the list that was received from the data supervisor.

4.3 Survey Team

The Household Expenditures and Income Survey is one of the largest household surveys carried out by the Department of Statistics and it is distinguished by a large number of staff who participates in it from administrators, Statisticians, programmers and field cadres.

Each governorate has a launch field office in addition to data entry and auditing units. The field team's number reached 34 field teams distributed in all the Kingdom governorates, where 73 field enumerators participated, 34 supervisors, 38 data entries, 18 data supervisors and 9 field supervisors to ensure work at the governorates.

4. The main documents of the survey

1.4 Survey Questionnaire

To reach the goals of the household Expenditures & Income Survey, the questionnaire was designed and finalized after being tested and reviewed by statisticians and specialists. The questionnaire included the following sections:

- **The questionnaire cover:** It contains geographic data by which the household can be inferred as the statistical unit in addition to data on the field and office work team.
- **Dwelling Characteristics:** This part includes data on the type of dwelling, its area, the number of rooms, the main energy source for cooking, the main source of drinking water, the type of sewage in the dwelling ... etc.
- **Availability of durable goods and household ownership:** This section contains questions regarding household ownership of the main durable goods and certain assets.

- **Social Protection:** This section was added to identify the entities that provide aid and subsidies to the households, while identifying the nature of the subsidy provided to the household during the (12) months preceding the day of the interview.
- **Characteristics of individuals:** This part of the questionnaire includes a set of questions related to the social, demographic and economic characteristics of household members such as marital status, educational level, gender and some health indicators, in addition to questions of economic activity to identify individuals' work during the (12) months prior to the day of the interview, where the household member characteristics data are provided for all the usual individuals residing with it or who have the intention to stay for a period of (6) months or more.
- **Agricultural activities:** Through this part, it will be known about the households practice of any agricultural activities such as cultivating land or owning livestock during the (12) months prior to the day of the interview.
- **Other sources of income:** This part includes the household's income from the various income sources from rents, ownership, or any transformative or capital income that the household obtained during the (12) months prior to the day of the interview.
- **Expenditures data:** This part of the questionnaire is dedicated to filling the household Expenditure data on food and non-food commodities, noting that the time reference periods for the household Expenditure data differ according to the specifics of some goods and services.
 1. Expenditures data on food commodities: The household had been asked about their consumption of food commodities and beverages during the (7) days prior to the day of the interview to get acquainted with the periodicity of purchasing these commodities with determining the last purchase amount allocated to the consumption of the household and the price that the household paid for this quantity purchased.
 2. Expenditures data on non-food commodities: The household had been asked about their Expenditure/ receiving of any non-food goods or services, as these goods and services were distributed according to the periods of reference to three sections:
 - a) Goods and services with a time reference of (30) days prior to the day of the interview.
 - b) Goods and services with a time reference of (90) days prior to the day of the interview.
 - c) Goods and services based on a 12-month time frame prior to the day of the interview.
- **Food security data** Where a set of questions addressed to the household to identify the state of food security for households and individuals.

4.1.1 Used codes

When designing the survey questionnaire, it is taken into account that all questions are pre-defined codes, except for questions related to the profession and economic activity. For this purpose, international guides and classifications were used, namely:

- The International Standard Industrial Classification of Economic Activities, Fourth Revision (ISIC4).

- International Standard Classification of Occupations issued by the International Labor Organization (ISCO) 2008.
- Classification of Individual Consumption by Purpose (COICOP).

2.4 Instruction Manual and Auditing Rules

The booklet contained detailed definitions and instructions related to the survey, in addition to the auditing rules for office and field workers at their different supervisory and executive levels. It also included a detailed explanation of all the questions of the questionnaire in its various sections, in addition to how to fill in the data in a manner that ensures obtaining the highest degree of validity and accuracy of the data.

1.2.4 Survey definitions and classifications

Housing Unit: It is an entire building (or part of a building) that has walls and a ceiling. It was originally prepared for the residence of one or more household regardless of the manner of its occupation, even if it was empty, closed or under construction at the time of the survey. The house consists of one or more rooms with its facilities and has a separate door, it leads directly (through a corridor or stairs) to the main road without passing through other housing and the abandoned buildings that are not suitable for human habitation are not considered as dwellings.

The households: It consists of one or more individuals residing in one house with or without a close relationship, but they share in food, drink and other living affairs so that all of them consist of one living unit that spends on its consumption needs of goods and services from the cash revenue accumulated with them regardless from the source of this revenue.

Head of the household: He is one of the usual household members residing inside Jordan, who is recognized as such by the household members and is usually responsible for the household's living arrangements and for taking decisions related to their affairs. The head of the household may be male or female, bearing in mind that his / her age should not be less than (15) years.

Income: is the monetary or in-kind return achieved for an individual or household from various sources during a specific time period that was determined for the purposes of this survey at (12) months prior to the day of the interview, the income generally consists for any household or individual of a group of main sources:

1. Income from employment (wages and salaries): It is all cash or in-kind payments that the individual deserves in exchange for his work, whether the work is primary or secondary and regardless of the method of payment (monthly, daily ... etc.) and it includes all bonuses for overtime and allowances whether regular or extraordinary, commissions, tips, gratuities.... etc.
2. Income of self-employed workers and employers: These are the monetary amounts obtained by an individual as a result of practicing work in a work place that he owns or has a part of, i.e. it is a mixed income between wages and ownership, such as if the individual has a place to sell supplies and works in it, owns a farm and works in or as an income for the doctor, lawyer, or craftsmen who work in their own work place.
3. Rents Income : These are the monetary amounts due to an individual as a result of renting out property owned by him/her for others such as buildings, transportation (taxi, public taxi, public bus), machinery and equipment, cultivated land ... etc.
4. Property Income: It is the income that the owner of a financial asset is entitled to in exchange for providing his money or placing the non-financial asset at the disposal of

others, such as incomes from barren land rents, interest in financial assets from deposits, shares, bonds, etc.

5. **Transfer Income:** It is the actual value of cash transfers or the estimated value at the market price for all goods that the household obtained from others without any commitment to work or providing a financial or material asset such as pensions, subsidies from various aspects, gifts...etc.

Household Expenditure: means Expenditure by any of the household members on goods and services, whether they relate to the household as a whole, such as the rent of the house and the value of water and electricity consumption, or related to some household members such as clothes, personal tools and children's purchases, where the final consumption of the household includes the value of goods and services that the household got or pay for it in cash by purchasing or producing it for its actual consumption. It also includes the value of goods and services that the household receives in kind, whether it is from governmental, private institutions or from other households. The following has been taken into account in determining expenditures:

1. A household's expenditures on servants is included in the household's expenditures if they are permanent residents.
2. If part of the expenditure items pertains to the consumption of the household or one of its members, and the other part concerns a project for the household such as a car owned by the household and used in its transportation as it is used to transport for peoples or goods (taxi as example) then in this case the household's expenditures is recorded only.
3. If during the reference period, the household obtained goods from its own production, for example a quantity of olive oil as a self-produced product, then it will be calculated during the week for the value of what was actually consumed of this commodity only.
4. If the household obtains, for its own consumption, some goods and services from a relative or others in kind without paying a monetary value, then the estimated value of these goods and services is calculated for them.
5. If the household obtains, for its own consumption, some goods and services from an affiliated establishment without paying a cash value for that, then the estimated value of these goods and services is calculated for them.
6. If the household purchases a commodity as a debt and does not pay its value during the period specified for collecting the data, it will be recorded in the household's expenditure in its full value.

5. Data Quality control

Verification of the survey results quality is obtained only through checking the quality of all statistical processes related to the implementation of the survey.

To achieve this goal, the survey administration was keen to put in place mechanisms to reduce the impact of errors on data quality, as represented by the following:

Conducting a pre-survey test: to identify weaknesses and defects also to ensure the integrity of procedures and mechanism for implementing the work technically and logistically. The Expenditures Division carried out two pre-surveys to evaluate all survey tools (survey questionnaire, training program, field work plan, data entry program, assignment of tasks, etc.).

Where the first pre-survey was carried out on 8/12/2016, with a 16 enumerators, in which 96 households were visited in the governorates of Amman , Irbid and Zarqa, the main objective

of this experiment was to test new questions that were added to the survey questionnaire, especially the food expenditure model. As for the second pre-survey experience, it was carried out on 6/6/2017, in each of the governorates Amman and Irbid, on a sample of 28 households, where 6 enumerators participated in this experiment and the complete survey questionnaire was tested in addition to the field visits program and Input program.

Survey staff selection: The survey management was keen to choose the best cadres to work in this survey, as the governorate supervisors were chosen from the department's distinguished employees in the field work, and enumerators, monitors, data entry and data supervisors of female university graduates and residents in the same governorate were selected after conducting 5 Evaluative exams during the training period and based on that, the best existing cadres were selected to continue working.

Training: Training is the basic unit for the survey success and reaching the desired goals, as the statistical team in the Household Expenditures and Income Division undertook the tasks of training the field cadre of enumerators, observers and supervisors of the governorates, where the beginning of the training was on 4/7/2017 and continued for a full month, where there were a detailed explanation of all the items of the questionnaire and the method of collecting data with households. The training also included an intensive practical implementation to ensure the readiness of the staff to complete the survey data with high accuracy. The data entry and supervisors received additional training on the input program and how to deal with the (CSpro software) and the Batch extraction for data auditing.

Field review and amendments rules: data auditing is a very important topic for this type of survey, which is characterized by multiple variables. The audit process in all its stages depends on the pre-determined rules and principles of auditing for enumerators, where a set of entry audit rules have been established for all fields of the survey questionnaire that includes most types of auditing on the entered fields such as checking the allowed range of the value and the amount entered for one field and the consistency between the value and quantity of the field and the values of other field quantities.

The consistency rules were applied directly during the entry on the various items of the questionnaire, to ensure that the entered data are consistent with each other and are logical on the one hand and compatible with the instructions given for the items and data of the questionnaire on the other hand, where the questionnaires are audited preliminary by the observer to correct any errors before leaving Place of work and after completing the data entry stage to the computer, statements relating to this data (Batch) will be withdrawn in the field centers to handle any errors mentioned in the questionnaire directly from the household during the data collection period.

Evaluation and supervision forms: Pre-forms were prepared to ensure the quality of work during all its stages, as a form was prepared for data entry and one for data supervisors, also supervisors provided with special models for following up on field work and a post-count form has been prepared that has been assigned to the team observers to ensure that the data registered in the questionnaire are correct.

Follow-up to the basic indicators of the survey: the entered data is reviewed and analyzed first-hand by the statistical team to review the anomalous and illogical values in addition to checking some basic variables such as the average household size, enrollment in education, etc., of each enumerator over periods of the survey in order to see the progress of work and discuss the field team in case of any data error.

Incentives and bonuses: Incentives and bonuses play a fundamental role in improving the performance of employees and accordingly, the survey management decided to adopt a

mechanism to evaluate the performance of field enumerators and teams based on basic indicators that are extracted from the data and accordingly, the best field team and enumerator are chosen in each regions of the Kingdom with the end of each survey round, where appreciation certificates are distributed to them in addition to symbolic amounts of money. As for the end of each month of the survey, the best enumerator from each governorate is chosen and granted an appreciation certificate for her distinguished work.

6. Tabulation and publishing of results

After the process of data collecting, auditing and performing preliminary adjustments on them, the final data are statistically analyzed by a specialized statistical team using statistical software, the most important of which is the (Stata) program.

After that it is tabulated in the form of statistical tables that meet the need of data users. It is worthy to mention that special tables for Jordanian households and other tables for non-Jordanian households were issued.