Methodology and Quality Report of Household Income and Consumption Expenditure Statistics

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2.   Methodology and Quality Update

2.1.	Methodology and Quality last update	31/12/2024

3.   Statistical Presentation

3.1.   Data description

The Household Income and Consumption Expenditure Survey is one of the field-based household surveys conducted in the field of social statistics. It provides data on income, spending patterns in society, and the impact of demographic, social, and economic factors on households.

Household Income and Consumption Expenditure Survey is a survey conducted to collect data on the basic characteristics as follows:

- Household disposable income.
- Household consumption expenditure.
- Household final monetary consumption expenditure.

3.2. Classification system

The following classifications are applied in Household Income and Consumption Expenditure Survey:

National Code of Countries and Nationalities (3166 ISO – codes Country):

A statistical classification based on the international standard (ISO 3166_Country codes), which is a standard issued by the International Organization for Standardization (ISO of the UN), and this classification gives numeric and literal codes for the world's (248) countries, based on the classification of countries.

The classification is used in Household Income and Consumption Expenditure Survey to classify Saudi or non-Saudi individuals.

The National Classification for Economic Activities (ISIC4):

The statistical classification based on the International Standard of Industrial Classification of All Economic Activities (ISIC4) is used to describe productive activities of an establishment .

Saudi Standard Classification of Occupations (ISCO_08):

A statistical classification based on the International Classification (ISCO_08) that provides a system for the classification and compilation of professional information obtained through censuses, statistical surveys, and administrative records.

This classification is used in Household Income and Consumption Expenditure Survey to classify employees based on their occupations.

Saudi Classification of Specializations and Educational Levels:

A statistical classification based on the International Standard Classification of Education (ISCED_11) and (ISCED_13) for education and training, issued by the United Nations Educational, Scientific and Cultural Organization (UNESCO). It serves as the reference classification for organizing educational programs and qualifications according to their levels and fields of study. It comprehensively covers all educational programs, levels, and methods, spanning from early childhood education to higher education levels.

This classification is used in Household Income and Consumption Expenditure Survey to classify individuals 15 years and older according to their majors and education levels.

The survey was also based on the new classification of individual consumption by purpose (COICOP), which was endorsed by the 49th session of the United Nations Statistical Commission as an internationally accepted standard in March 2018.

Methodology and Quality are collected through interviews, so that outputs can be produces in accordance with all relevant classifications.

The classifications are available on the GASTAT's website: www.stats.gov.sa

3.3.   Sector coverage

Not applicable

3.4.   Statistical concepts and definitions

Terminologies and concepts of Household Income and Consumption Expenditure Survey:

- Dwelling:

It is a building or part of a building originally designed to house one or more households, with an independent entrance, whether it is occupied by one or more families at the time of the visit or vacant. It may contain one or more establishments, and it may house both a family and an establishment at the same time. A dwelling may consist of one or more rooms. According to the census, any place that is inhabited at the time of building enumeration and property unit numbering is considered a dwelling, even if it was not originally intended for housing, such as shops, stores, and workshops.

- A Household:

It is an individual or a group of individuals, whether related or not, who share a residence and meals and live in the same dwelling at the time of the survey. The following individuals are considered part of the household:

- Saudi citizens who usually reside with the family but were absent during the survey due to being temporarily outside the Kingdom, such as: Businesspeople, individuals traveling for medical treatment or tourism, and students studying abroad.

- – individuals who usually reside with the family but were absent during the survey due to being on evening work shifts such as: Doctors, nurses, fishermen, airport workers, and security guards. etc)
  - – Servants, drivers, and those in similar positions who reside with the family.
  - – Family members traveling within the Kingdom.
- Head of the household:

The head of the household is the person chosen by the family as its leader from among its resident members. This individual is typically responsible for making decisions regarding family matters and must be at least 15 years old. If the household consists of children and their mother, and a relative who does not reside with them takes care of their affairs, that relative is not considered the head of the household and will not be registered as a member of it, as they are registered under another household. In this case, the mother is considered the head of the household.

- Household Disposable Income:

Household disposable income consists of all income, whether in cash or in kind, received by the household or one of its members at annual or more frequent intervals. It excludes windfall gains and other such irregular and typically one-time receipts. Household income receipts are available for current consumption and do not reduce the net worth of the household through a reduction of its cash, the disposal of its other financial or non-financial assets or an increase in its liabilities.

Household income includes the following:

- – Income from labor (income from employees, self-employed or employers).
- – Income from property.
- – Income from current transfers received.
- – The imputed rent of the owned residence.

Household disposable income is net income after excluding current transfers paid to others, direct income taxes (if any), and social insurance contributions for employees and employers.

- Household consumption expenditure:

The household consumption expenditure is the value of spending on all goods and services consumed by household members during the reference period. It covers all cash expenditures on consumed goods and services, as well as the cash value of consumption from in-kind income, such as: Food produced on the family farm. It includes spending on food at home and food outside the home, as well as spending on non-durable and non-food goods and services (excluding expenditures on goods and services that can be considered investments or savings). It also encompasses the value of consumption flow

that households obtain from durable goods and the value of consumption flow that homeowners receive from living in their owned dwelling (The imputed rent of the owned residence).

- Household Final Monetary Consumption Expenditure:

Household final monetary consumption expenditure is the expenditure made by households for the direct satisfaction of needs or wants through monetary transactions. It is generally associated to the domestic concept that captures expenditure made by households, irrespective of their nationality or residence status, on the economic territory of the country. The household final monetary consumption expenditure concept based on data from the HICES 2023 is referred to the national concept and, as such, it includes only expenditures made by households' resident on the economic territory of the Kingdom of Saudi Arabia.

- Classification of Individual Consumption by Purpose (COICOP):

The Classification of Individual Consumption by Purpose (COICOP) is an international classification developed by the United Nations Statistics Division to classify and analyze individual consumption expenditures by households, non-profit organizations serving households, and general government according to their purpose (United Nations 2018). The aim of this classification is to provide an international reference framework for aggregating household consumption expenditures on goods and services into homogeneous categories. These categories are based on the specific purpose that those goods and services are intended to fulfill. In March 2018, the 49th session of the United Nations Statistical Commission reviewed and endorsed the revised COICOP - COICOP 2018 as an internationally accepted standard. All household consumption expenditures in COICOP 2018 are classified into 13 sections as follows:
  – Food and non-alcoholic beverages.
  – Alcoholic beverages, tobacco, and narcotics.
  – Clothing and footwear.
  – Housing, water, electricity, gas, and other fuels.
  – Furniture, household equipment, and routine household maintenance.
  – Health.
  – Transportation.
  – Information and communication.
  – Recreation, sports, and culture.
  – Educational services.
  – Restaurant and accommodation services.
  – Insurance and financial services.
  – Personal care, social protection, and miscellaneous goods and services.

- Average monthly household disposable income:

It is an indicator that measures the average monthly disposable income of a household, which is the sum of the monthly disposable income of a household to the total number of households.

- Median monthly household disposable income:

It is the value that represents the median of household disposable monthly income data when arranged in ascending (or descending) order. This value divides the disposable income data into two equal parts, where the disposable income data in the first part is less than or equal to the median, and the disposable income data in the second part is greater than or equal to the median.

- Average monthly disposable income per capita:

It is an indicator that measures the average monthly disposable income per capita, which is the sum of the monthly disposable income per capita to the total number of individuals.

- Median monthly disposable income per capita:

It is the value that represents the median of per capita monthly disposable income data when arranged in ascending (or descending) order. This value divides the disposable income data into two equal parts, where the disposable income data in the first part is less than or equal to the median, and the disposable income data in the second part is greater than or equal to the median.

- Average monthly household consumption expenditure:

It is an indicator that measures the average monthly consumption expenditure of households, which is the sum of monthly household consumption expenditure to the total number of households.

- Median monthly household consumption expenditure:

It is the value that represents the median of household monthly consumption expenditure data when arranged in ascending (or descending) order. This value divides the consumption expenditure data into two equal parts, where the consumption expenditure data in the first part is less than or equal to the median, and the consumption expenditure data in the second part is greater than or equal to the median.

- Average monthly consumption expenditure per capita:

It is an index that measures the average value of monthly consumption expenditure per capita, which is calculated by dividing the total monthly consumption expenditure by the total number of individuals.

- Median monthly consumption expenditure per capita:

It is the value that represents the median of per capita monthly consumption expenditure data when arranged in ascending (or descending) order. This value divides the consumption expenditure data into two equal parts, where the consumption expenditure data in the first part is less than or equal to the median, and the consumption expenditure data in the second part is greater than or equal to the median.

- Average monthly household final monetary consumption expenditure:

It is an indicator that measures the average monthly final monetary consumption expenditure of households, which is the sum of monthly household final monetary consumption expenditure to the total number of households.

- Median monthly household final monetary consumption expenditure:

It is the value that represents the median of monthly household final monetary consumption expenditure data when arranged in ascending (or descending) order. This value divides the final monetary consumption expenditure data into two equal parts, where the final monetary consumption expenditure data in the first part is less than or equal to the median, and the final monetary consumption expenditure data in the second part is greater than or equal to the median.

- Average monthly final monetary consumption expenditure per capita:

It is an indicator that measures the average value of monthly final monetary consumption expenditure per capita, which is the sum of monthly final monetary consumption expenditure per capita to the total number of individuals.

- Median monthly final monetary consumption expenditure per capita:

It is the value that mediates the monthly final monetary consumption expenditure data of per capita when arranged in ascending (or descending) order, that is, it is the value that divides the final monetary consumption expenditure data after it is arranged into two equal parts so that the final monetary consumption expenditure data in the first part is less than or equal to the median and the final monetary consumption expenditure data in the second part is greater than or equal to the median.

3.5. Statistical unit

The statistical unit of the Household Income and Consumption Expenditure Survey is:

- The primary sampling unit, which consists of enumeration areas made up of residences.
- The final sampling unit, which includes both occupied and vacant residences.
- The observation unit is the households that reside in the dwellings on a regular basis.

3.6. Statistical population

The statistical community for the Household Income and Consumption Expenditure Survey is Saudi and non-Saudi households that reside regularly in the Kingdom of Saudi Arabia.

3.7. Reference area

The survey sample is a representative sample for Saudi Arabia's 13 administrative regions.

3.8. Time coverage

Data is available from 1999 with a release every 5 years.

3.9. Base period

Not applicable.

4. Unit of measure

- Saudi Riyal: displayed as averages (such as: Average monthly disposable income and average monthly consumption expenditure).
- Rates and percentages (such as: Average household size and the percentage of household monthly final monetary consumption expenditure).

5. Reference period

References period to the variables or dataset as following:
- The household characteristics and housing data are attributed to the day of the visit when the household was surveyed.
- Income data and transfers made between households are attributed to the 12 months preceding the visit.
- Daily household spending data and individual diaries are attributed to the fourteen days following the first visit.
- Data on spending for housing, durable goods, health services, and capital expenditures are attributed to the 12 months preceding the visit.
- Data on spending for non-durable goods, services, and pharmaceuticals are attributed to the last month preceding the visit.
- Data on spending for health services are attributed to the three months preceding the visit.
  Point-of-purchase data is based on the places (including websites) where you typically buy specific categories of products.

6. Confidentiality

6.1. Confidentiality - policy

According to the Royal Decree No. 23 dated 07-12-1397, data must always be kept confidential, and must be used by GASTAT only for statistical purposes.

Therefore, the data are protected in the data servers of the Authority.

6.2. Confidentiality - data treatment

Data are displayed in appropriate tables to facilitate its summarization, comprehension, results extraction, comparison with other data and coming up with statistical connotations for the study community. It is also easier to check tables without the need to see the original questionnaire, which usually include data like names and addresses of individuals, names of data providers, which violates the confidentiality of statistical data.

"Anonymity of data" is one of the most important procedures. To keep data confidential, GASTAT removed personal information of individuals, households, or business entities in a way that does not allow the identification of the respondent either directly (by name, address,

contact number, identity number etc.) or indirectly (by combining different - especially rare - characteristics of respondents: age, occupation, education etc.).

7. Release policy

7.1. Release calendar

The Household Income and Consumption Expenditure Survey are included in the statistical calendar.

7.2. Release calendar access

Available on the: https://www.stats.gov.sa/en/future-releases

7.3. User access

One of GASTAT's objectives is to better meet its clients' needs, so it immediately provides them with the publication's results once the Household Income and Consumption Expenditure Survey is published.

It also receives questions and inquiries of the clients about the Publication and its results through various communication channels, such as:

- GASTAT official website: www.stats.gov.sa
- GASTAT official e-mail address: info@stats.gov.sa
- Client support e-mail: cs@stats.gov.sa
- Official visits to GASTAT's official head office in Riyadh or one of its branches in Saudi Arabia.
- Official letters.
- Statistical telephone: (199009).

8.   Frequency of dissemination

Every 5 years.

9.   Accessibility and clarity

9.1.   News release

The announcements of each publication are available on release calendar as mentioned in 7.2. Release calendar access. The news release can be viewed on the website of GASTAT through the following link:

 https://www.stats.gov.sa/en/news

9.2.   Publications

GASTAT issues publications and reports on the Household Income and Consumption Expenditure Survey on a regular basis within a pre-prepared dissemination plan and is published on GASTAT's website. GASTAT is keen to publish its publications in a way that serves all users of different types, including publications in different formats that contain (publication tables, data graphs, indicators, Methodology and Quality Report, and questionnaires) in both English and Arabic.
The results of the Household Income and Consumption Expenditure Survey are available at:

Household Income and Consumption Expenditure Survey| HICES

9.3.   On-line database

The data is published on the statistical database

GASTAT (stats.gov.sa)

9.4.   Micro-data access

Microdata are unit-level datasets derived from surveys, censuses, and administrative records. These datasets provide detailed insights into individuals, households, businesses, and geographic areas, supporting the development of statistical indicators and in-depth research.

The different types of microdata files to meet different information needs:

- **Public use:**

  It consists sets of records containing information on individual persons, households, or business entities anonymized in such a way that the respondent cannot be identified either directly (by name, address, contact number, identity number etc.) or indirectly (by combining different - especially rare - characteristics of respondents: age, occupation, education etc.).

- **Scientific use:**

  These files established based on specific methodology asked by data requester to extract the datasets with specific characteristics used for strategic studies and decision making as well scientific research purposes on individuals, households and enterprises with no direct identifiers, which have been subject to control methods to protect confidentiality.

Access to Scientific Use Files (SUF) is restricted to authorized researchers who comply with ethical and confidentiality standards. Representative samples of SUF can be obtained through GASTAT's secure platform, "Etaha," while more sensitive datasets are accessible only through secure physical lab environments managed by GASTAT.

9.5.   Other

Not available.

9.6.   Documentation on methodology

Concepts, definitions, issues and classifications are based on internationally recognized standards by following the stages of statistical work contained in the General Model of Statistical work procedures (GSBPM) from the stage of identification of need to the stage of evaluation.

Generic Statistical Business Process Model (GSBPM)

9.7. Quality documentation
Quality documentation covers documentation on methods and standards for assessing, measuring, and monitoring the quality of statistical process and output. It is based on standard quality criteria such as relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, comparability, and coherence.

10. Quality management

10.1. Quality assurance
GASTAT declares that it considers the following principles: impartiality, user orientated, quality of processes and output, effectiveness of statistical processes, reducing the workload for respondents. Quality controls and validation of data are actions carried out throughout the process in different stages such as the data input and data collection and other final controls.
10.2. Quality assessment
GASTAT performs all statistical activities according to a national model (Generic Statistical Business Process Model – GSBPM). According to the GSBPM, the final phase of statistical activities is overall evaluation using information gathered in each phase or sub-process. This information is used to prepare the evaluation report which outlines all the quality issues related to the specific statistical activity and serves as input for improvement actions.

11. Relevance

11.1. User needs
Internal users in the GASTAT for the Household Income and Consumption Expenditure Survey data: • Statistics of national accounts.

- Price statistics.

Some several external users and beneficiaries greatly benefit from Household Income and Consumption Expenditure Survey data, including:

- Government entities.
- Regional and international organizations.
- Research institutions.
- Media.
- Individuals.

The disseminated key variables that used by external users:

Ministry of Economy and Planning.	Survey indicators in general.
Ministry of Human Resource and Social Development.	

11.2. User satisfaction

Not available.

11.3. Completeness

The Household Income and Consumption Expenditure Survey data are based on survey data in order to provide comprehensive information on:

- Indicators of available monthly income for households and individuals.
- Indicators of monthly consumption expenditure for households and individuals.
- Indicators of monthly final monetary consumption expenditure for households and individuals.

And data is in a complete state.

12. Accuracy and reliability

12.1. Overall accuracy

- The data collected is improved through the researchers, that have been selected according to a set of practical and objective criteria and training program related to the field of work.
- Alert, prevention, and correction rules are applied during the data collection process on the electronic questionnaire for the Household Income and Consumption Expenditure Survey to improve data quality.
- Continuous data quality checks and taking appropriate measures during data collection.
- The internal consistency of the data is checked before it is finalized.
- Apply the best international standards and practices to ensure the quality of outputs.

13. Timeliness and punctuality

13.1. Timeliness

The General Authority for Statistics is committed to applying internationally recognized standards regarding the announcement, clarification of the time of publishing statistics on its official website, as outlined in the statistical calendar, as well as adhering to the announced time of publication. In the event of any delay, updates will be provided accordingly.

13.2. Punctuality

The publication is done according to the publication dates in the statistical calendar published for the Household Income and Consumption Expenditure Survey on the website page of the General Authority for Statistics.

The data are available at the expected time, as scheduled in the statistical release calendar, If the publication is delayed, reasons shall be provided.

14. Coherence and comparability

14.1. Comparability - geographical

The data is geographically comparable.

14.2. Comparability - over time

The survey started in 1999 as a survey conducted every five years. The following are the main changes that have occurred in recent years:

- 2013:

  Computer Assisted Personal Interviewing (CAPI) is beginning to be used as the main and only collection method.

- 2018:

  Add detailed indicators and use Computer Assisted Personal Interviewing (CAPI) for data collection.

- 2023:

  A redesign of the survey form in collaboration with the World Bank team and the use of the updated classification of individual consumption by purpose (COICOP), as well as the addition of another method of computer-assisted online data collection (CAWI) for food expenditure sections.

14.3. Coherence- cross domain

Not applicable.

14.3.1.   Coherence - sub annual and annual statistics

Not applicable.

14.3.2.   Coherence- National Accounts

The data on consumption expenditure items are provided according to their relative importance and provided by the Price Statistics Department of the Authority, for use in building the consumer basket to collect data on the prices of goods and services, as well as the National Accounts Statistics Department of the Authority is provided with data on total

household spending on goods and services by expenditure groups and by goods and services to estimate household sector spending in calculating GDP and building supply and use tables.

14.4. Coherence - internal

The Household Income and Consumption Expenditure Survey estimates have full internal coherence, as they are all based on the same corpus of microdata, and they are calculated using the same estimation methods.

15. Resources used

Description	Total
Average of employees per month (GASTAT's staff, researchers).	865
Number of unites surveyed.	122,325
Total days of data collection period (end date – start date).	361
Average conducted interviewer per day (during data collection).	339

16. Data revision

16.1. Data revision - policy

Not applicable, only final results will be published.

16.2. Data revision - practice

Not applicable, only final results will be published.

17. Statistical processing

17.1. Source data

The main source of the Household Income and Consumption Expenditure Survey is a field survey where data is collected from a sample of households according to the housing characteristics of each family.

The main variables published for the Household Income and Consumption Expenditure Survey data are the average and median (disposable income, consumption expenditure, final monetary consumption expenditure) monthly according to the following variables:

- Administrative region.
- Nationality.
- Age groups.
- Educational level.

17.2. Frequency of data collection

Every 5 years.

17.3. Data collection

Data collection from survey:

Data for the Household Income and Consumption Expenditure Survey is collected through Computer-Assisted Personal Interviews (CAPI), Computer-Assisted Web Interviews (CAWI).

Five interviews are conducted for the household within 14 days as follows:

The researcher will visit the household for the first time to collect data on the main social and demographic characteristics of all family members. After that, for a period of 14 days starting from the date of this visit, the household will be asked to record in a diary, either paper or electronic, all its expenditures on food, beverages, and tobacco at the household level, as well as all individual expenditures on food away from home through individual diaries, either paper or electronic, for each family member aged 15 and older.

During the first (introductory) visit, the researcher will provide the household with the first part of the diary. If the household encounters any difficulties in recording expenditures, they will provide the researcher with all the bills and receipts collected during the diary recording

period, which will last for 7 days. The researcher will also offer support to the household during the recording period through additional scheduled visits.

During the second visit, two days after the first visit, the researcher will collect information about the income of all household members.

The third visit will be scheduled seven days after the first visit, during which the household will return the first part of the diary to the researcher, which has been filled out for 7 days. The household will then receive the second part of the diary to be filled out over the next seven days.

Ten days after the first visit, a fourth visit will be scheduled to monitor the completion of the second part of the diary, whether it is paper or electronic, and to support the household if necessary.

The fifth and final visit will take place fourteen days after the first visit, during which the researcher will retrieve the second part of the diary and collect data on household expenditures (with different reference periods according to the expenditure category), main purchase points, and capital expenditures for any individual family member.

They will be stored in the authority's databases after auditing and reviewing according to established statistical methods and recognized quality standards, with reference to the data source in case any errors are discovered or if there are any observations regarding the data.

17.4. Data validation

Data are reviewed and matched to ensure their accuracy and precision in a way that suits their nature with the aim of giving the presented statistics quality and accuracy.

In addition to the data processing and tabulation to check their accuracy, all the outputs are stored and uploaded to the database after being calculated by GASTAT to be reviewed and processed by specialists in Living Conditions, Lifestyles and Justice Statistics Department through modern technologies and software designed for this purpose.

17.5. Data compilation

Data Coding:

Interviewers in Household Income and Consumption Expenditure Survey collect from respondents, a detailed description of each field. This information is then coded in-house by an automated process, which is reviewed by a small-dedicated team of coding experts using a series of consistency checks.

Data editing:

Specialists of Living Conditions, Lifestyles and Justice Statistics Department have processed and analyzed data in this stage, and this step was based on the following measures:

- Sorting and arranging data in groups or different categories in a serial order.
- Summarizing detailed data into key points or data.
- Combining many data segments and ensuring their interconnection.
- Processing incomplete, missing and duplicated data.
- Processing illogical data.
- Converting data into statistically significant data.
- Arranging, presenting, and interpreting data.

Extrapolation and weighting:

After processing the data collected from respondents, survey weights were generated to produce indicator tables by following two main steps in creating survey weights:

- Adjustment of non-response.
- Calibration weight.

17.6. Adjustment

Not applicable, only final results will be published.

18. Comment