مـركـز الإحـصـاء
STATISTICS CENTRE

Household Income and Expenditure Survey

Methodology

2024

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1. Overview

1.1. Introduction

Within the framework of providing social and economic databases that reflect household expenditure, consumption, and income, most countries around the world conduct Household Income and Expenditure Surveys, formerly known as the Household Budget Survey. This survey provides an important and comprehensive database related to expenditure and income. It is also linked to various social and demographic variables, such as education level, economic activity status, geographic distribution, gender, and more.

The implementation of this type of survey is characterized by difficulty and complexity, as it deals with data on expenditure, consumption, and income, and involves conducting interviews with households in the sample to collect information on these sensitive variables. Moreover, expenditure, income, and consumption variables are subject to seasonal variations, which necessitates monitoring expenditures and revenues throughout the year to account for all seasonal circumstances; it is a task that requires continuous monitoring of field operations for a full year, this process involves significant effort, time, and high costs.

Due to the ongoing changes in expenditure, consumption, and income patterns, this survey is conducted periodically and regularly, most countries tend to carry it out every five years. In some cases, there may be a need to conduct the survey within a shorter time frame due to rapid demographic changes caused by sudden events such as wars, migrations, or disasters, all of which affect the nature of the population's expenditure, consumption, and income patterns.

The Household Income and Expenditure Survey has been regularly conducted by the Abu Dhabi Government since the early 1980s. The most recent survey was conducted in 2019, preceded by the 2013/2014 survey, the 2007/2008 survey, the 1996/1997 survey, and another survey conducted in 1981 at the level of local government employees' households only. These surveys covered all regions of the Emirate of Abu Dhabi.

1.2. Importance

The importance of the survey lies in the need for the data required to build the weighting factors for compiling the Consumer Price Index (CPI) and the Gross Domestic Product (GDP) by expenditure components. It is also crucial for evaluating the level, structure, and trends of households and individuals' welfare in terms of income and expenditure distribution. Therefore, it contributes to the formulation and development of social and economic policies.

1.3. Objectives

The objectives of the Household Income and Expenditure Survey are as follows:

- Providing data on the income, expenditure, and consumption of households and individuals in the Emirate of Abu Dhabi, to be used in the construction of various economic indicators.
- Providing the necessary data to construct the consumer price index (CPI) basket of goods and calculate their relative importance (weights). The data from this survey is relied upon to update the base year for the CPI as one of the key price indicators.

- Calculating the average annual expenditure and income of households and individuals, and linking these averages to various social, demographic, and geographic variables, such as employment status, educational status, gender, region, and others.
- Providing data for calculating various poverty indicators, such as poverty thresholds, poverty rates, and gaps, in addition to enabling the identification of poverty pockets and providing the data needed to assess the level, structure, and trends of households and individuals' welfare.
- Providing data on figures related to the nutritional balance concerning individual caloric consumption.
- Identifying the distribution of the population according to different income and expenditure levels, and using expenditure data to determine spending patterns and consumption expenditure trends of population based on various characteristics such as nationality, educational level, employment, etc.
- Estimating the current demand for goods and services and assisting in forecasting future population needs for goods and services.
- Calculating the expenditure (demand) elasticity for various expenditure items.
- Providing data on the final consumption expenditure of the household sector.
- Building household sector accounts as one of the key institutional sectors for constructing national accounts.
- Providing data needed for constructing supply and use tables, as well as estimating the informal sector to support national account estimates.
- Issuing income and expenditure statistics of households in a manner that enhances their comparability at the local, regional, and international levels, in line with internationally accepted concepts, definitions, and classifications.

1.4. Uses of the Survey

The use of survey data is classified into two categories:

- **Internal Use:** This includes providing a database for the purpose of generating key indicators produced by the center, such as the Consumer Price Index (CPI), various national accounts indicators, as well as a range of other measures related to welfare, poverty, living standards, and cost of living. The survey provides updates for the consumer basket and the weights of the CPI needed to calculate inflation rates based on current base prices. It also supplies data to enhance the estimates of national accounts and to produce various other indicators.

- **External Use:** This involves utilizing the survey database to infer certain indicators related to social and economic decision-making by government agencies and institutions, as well as preparing various studies by research centers, university students, and other users.

2. Survey information

2.1. Geographical coverage

The survey data covers households with permanent residence and labor camps in all regions of the Emirate of Abu Dhabi (Abu Dhabi, Al Ain, and Al Dhafra).

2.2. Statistical population

Target Population: The target population is the statistical population for which estimates must be provided. This survey targets households and individuals who are permanently residing in the Emirate of Abu Dhabi. The following are the targeted households and living arrangements:

- Emirati Households
- Non-Emirati Households
- Collective Households
- Labor Camps (Workers' Housing Units): This includes their characteristics, expenditure, and income within the camps where they reside.

The following categories were excluded from the target population in the 2024 Household Income and Expenditure Survey:

- Sheikhs and VIPs
- Diplomatic missions
- Individuals with permanent residence in the following institutions (hospitals, hotel residents, students' hostels)
- Non-usual residence

Data on income, expenditure, and characteristics for student housing, Army Camps, hospitals, and hotel residents are collected as part of their respective household data during the survey period.

2.3. Statistical Unit

The statistical unit (survey unit) is the unit that selected in the sample and about which data is collected. One of the key features of the Household Income and Expenditure Survey is the diversity of survey units, based on economic and social variables. These are as follows:

- Housing Unit: Data on the housing characteristics are collected for this unit.
- Household Unit: Data on household characteristics, in addition to expenditure data, are collected for this unit.
- Individual Unit: Data on individual characteristics, in addition to income data, are collected for this unit.

2.4. Statistical Classifications Applied

The classifications used in the Household Income and Expenditure Survey vary depending on the type of variables that need classification and coding. All the classifications adopted for the survey are those applied in the UAE and are internationally and regionally recognized. The following are the main classifications used:

- Classification of Nationalities (Countries)
- Classification of Education Specialization

- International Standard Classification of Occupations (ISCO)
- International Standard Industrial Classification of All Economic Activities (ISIC, Revision 4)
- Classification of Individual Consumption According to Purpose (COICOP)

Regarding the classification of both economic activities and occupations, the aforementioned international classifications have been adopted, with the coding of economic activities at the first level (which includes 21 main economic activities). As for occupations, the coding has been applied at the second level.
As for the Classification of Individual Consumption According to Purpose (COICOP), it is the international standard for classifying groups and subgroups of expenditure and the consumer goods within them. This classification is used to organize goods and services within the survey questionnaire and to apply the appropriate coding for each item. Goods and services are classified according to COICOP 18, based on the division, group, class, and sub-class, as illustrated in the table below.

10.1 International Economic Classifications					
10.1.4 Classification of Individual Consumption According to Purpose (COICOP) (latest update 2018)					
Good/ Service	**Code الرمز**				**السلعة/ الخدمة**
	القسم Division	**المجموعة Group**	**الفرع Class**	**تفصيل الفرع Subclass**	
Food and non- alcoholic beverages	**01**				**الأغذية والمشروبات غير الكحولية**
Food		**01.1**			**الأغذية**
Cereals and cereal products (ND)			**01.1.1**		**الخبز والحبوب**
Cereals (ND)				01.1.1.1	الحبوب

2.5. Periodicity

The Household Income and Expenditure Survey is conducted every five years.

2.6. Timeliness

The results of the Household Income and Expenditure Survey are published within a period not exceeding 8 months from the completion of the survey.

2.7. Reference Period of Survey Data

It is the period for which data is collected from the respondent. In this survey, data will be collected for the calendar year from 01/01/2024 to 31/12/2024.
The reference period for which data on the variables is collected in this survey varies depending on the type of data, as outlined below:

- Housing Characteristics Data: Data are completely collected during the first visit to the household.
- Individual Characteristics Data: Data are collected during the visit, except for questions related to the labor force, where the reference period is the week preceding the visit.

- Income Data: Individuals are asked about their current income and any capital transactions that occurred during the previous year, ending with the month in which the survey is conducted for the household.
- Expenditure Data: The reference periods for household expenditure data vary depending on the characteristics of certain goods and services.

2.8. Measurement Units

The total household data is measured as a unit consisting of household members. The output for income and expenditure values is measured in UAE Dirhams, while the quantity of goods is measured in kilograms, grams, kilowatts, liters, meters, square meters, and cubic meters. Meanwhile, the results of the Household Income and Expenditure Survey are presented in the form of totals and percentages.

2.9. Alignment to International Standards

The methodology used to conduct the Household Income and Expenditure Survey is aligned with the best practices and international recommendations in this field. The Statistics Center – Abu Dhabi follows several standards, such as the System of National Accounts (UNSD), the Manual on Population and Housing Censuses (UNSD), and the Household Income and Expenditure Statistics – 17th International Conference of Labor Statisticians (International Labor Organization).

2.10. Data Sources

The Statistics Centre - Abu Dhabi relies on several main sources to collect data for the Household Income and Expenditure Survey, including:

2.10.1. Administrative Data

Several administrative and registry sources have been relied upon to cover part of the Household Income and Expenditure data for 2024. Below are the most important of these sources:

- Department of Municipalities and Transport (DMT)
- Department of Health (DOH)
- Abu Dhabi Distribution Company (ADDC)
- Al Ain Distribution Company (AADC)
- Department of Education and Knowledge (ADEK)
- Abu Dhabi Social Support Authority (SSA)
- Ministry of Education (MOE)
- Abu Dhabi Judicial Department (ADJD)
- Labor Force Register (LFR)

2.10.2. Field Survey Data

The required data is collected via field visits to the target sample individuals, utilizing survey questionnaires specifically designed for this purpose.

2.11. Survey Variables

The scope of the survey covers a large number of variables, which together constitute the various types of survey questionnaires. These variables are categorized into six main types:

Variable Type	Definition
Identification variables	Identification variables address the geographic aspects of the survey units, such as the emirate, region, and population settlement (including Stratum number, Cluster number, Building identification number, household serial number in the sample, Household type, Household respondent status, Result of household visit, Building type, Household visiting month, Owner name of the building, Building regulation (Government, Private), The building's distinctive number (Onwani), street name and number, Dwelling type, Location of the Dwelling in the Building, head of household name, household phone number, email address, and Number of household member).
Housing specific variables	• **Housing characteristics are collected for private households (Emirati, non-Emirati) and collective households**, including the characteristics of the housing unit in terms of the Tenure Type, the main building material, Electricity source, drinking water source, The type of fuel used in the kitchen, Sanitation, Air conditioning type, Housing unit components, in addition to the problems facing the household in the housing. • **Housing characteristics are not collected for Labor camp** Since the individual does not reside in a private housing or private housing unit and does not reside within a private or collective household, data on the characteristics of housing and household are not collected. Where the survey does not aim to study the housing characteristics for this category.
Social variables	Social variables deal with different social characteristics of individuals such as gender, age, educational status, educational level, employment status, marital status, and other variables.
Household ownership variables of appliances, services and real estate	Household ownership variables of appliances, services and real estate related to the availability and number of some goods, including the following goods: private car/gasoline, private hybrid car, private car/electricity, boat trip,

	motorcycle, electric bike, electric scooter, jet ski, smartphone, home internet subscription, tablets (iPad, iPod, etc.), computer, computer printer, broadcast receiver, dishwasher, clothes dryer, freezer, water cooler, air fryer, microwave, sports equipment for personal use, outdoor games for children, parking lot (shaded), private swimming pool, solar energy, rented buildings, rented lands, internal security camera (inside the house), and the number also includes everything owned by the house members registered in the form, including servants if they are part of the household.
Household productive activities Variables	Household productive activities Variables include the productive activities carried out by the household inside the housing with the aim of practicing a specific economic activity within housing, such as hairdressing, Carriage of passengers, Childcare for remuneration, Plant or animal production, and other household productive activities. In these activities, the household or one of its members carries out productive activities within the housing, meaning that there is no other specific place to practice such activities.
Economic variables	Economic variables include income and expenditure variables. Expenditure variables focus on the values and quantities of household spending on each good or service included in the consumer basket, whether they are food or non-food goods or various services. As for income variables, they include the values of the individual's annual income from various sources, such as income from employment (cash or in kind), income of the self-employed, property income, rental income, income from transfers, and other receipts. This also include capital transactions carried out by the household, such as lending or borrowing, and the selling or buying of durable goods, real estate and land.

2.12. Survey Questionnaires

Survey questionnaires are the tools used to collect data on the survey variables. The Excel file below shows these questionnaires.

2. 2024 HIES
Questionaires- After e

Within the methodology for conducting this survey, the types of questionnaires are:

2.12.1. Questionnaire for the characteristics of Individual, Household, Housing and Income Sources

This questionnaire is electronic, and the enumerator is asked to fill in its data from the sample households. This questionnaire consists of several parts:

- Identification data: Includes all identification variables, and this data is often on the cover page of the questionnaire.
- Characteristics of housing: Include all variables related to the housing, ownership of appliances and durable goods, and the productive activities carried out by the household.
- Characteristics of household members: Includes the names of household members and all social variables related to each household member.
- Current income of household: This section of the questionnaire includes variables of income from all different sources for each income item of the household members, as it includes different sources of income divided into: income from employment, income from self-production, income from self-employed and employers, rental income, property income, income from transfers, and finally total individual income. Income values are recorded in UAE dirhams and rounded to the nearest whole number, excluding decimal fractions.

2.12.2. Household Expenditure Questionnaire

This questionnaire consists of number of parts related to the components of the consumer basket. It is an electronic form that is loaded onto the of field enumerator's tablets, allowing for continuous entry of household expenditure data. The sections of this questionnaire are as follows:

- Expenditure on food, drink and tobacco: This section includes all variables classified under the Classification of Individual Consumption According to Purpose COICOP 18.
- Expenditure on other goods and services: The arrangement of this part of the questionnaire is exactly the same as food, drink and tobacco part, i.e. there is a classification of groups and then classes within the groups, subclasses within the classes, and finally there is a serial number for the good or service within the single subclass.
- Quantity and value in dirhams.
- Purpose of Expenditure/consumption: Includes household consumption, gifts for household from others, gifts from the household for others inside the emirate, gifts from the household for others inside the country, gifts from the household to others outside the country, and consumption of self-production.
- Place/method of purchase: includes Shopping from the same Emirate, Shopping from another Emirate, Shopping outside the country, and Purchasing from internet.
- Payment method: Payment includes cash, credit card (prepaid), credit card (postpaid), self-production and gifts/free.

2.12.3. Weekly Auxiliary Household Notebook

The auxiliary household notebook is a paper or electronic questionnaire prepared to record daily household purchases according to the commodity, quantity and value. Household purchases are tracked over a whole month, and the auxiliary notebook gives households the opportunity to record their purchases, which increases the accuracy and efficiency of the data and prevents omissions. The various forms and the auxiliary household notebook used in the household income and expenditure survey can be viewed and downloaded from the designated place for the 2024 survey on the website of the Statistics Center.

2.13. Survey Technical Requirements

This stage includes preparing the necessary requirements of various tools and technical rules:

- Preparing manuals for training, field and office editing.
- Preparing the classifications and codes used in the survey data variables.
- Preparing the validation rules for the survey variables, shown in the Excel file below:

1. 2024 HIES
Automated auditing

- Preparing and designing an electronic system for collecting data, and uploading it to tablet devices (IPAD), in order to obtain data easily, quickly and accurately, and enter it into databases, in a way that facilitates the process of reviewing, editing and following up on data, in preparation for the stage of collecting this data, so that it is prepared to include all the required data.
- Preparing and designing an electronic database for the survey, based on the data collection model.

3. Survey Sample

3.1. Sampling Frame

The frame used in the 2024 Household Income and Expenditure Survey is an updated sampling frame from the 2023 Register-Based Census data.

3.2. Sampling Unit

Primary sampling unit: The enumeration area has been defined as the sampling unit, where the average number of households in one sampling unit ranges between 100 and 200 households, except in some cases depending on the geographical location and the spread of households in the same area.
Secondary sampling unit is the household, where 12 households are drawn from each enumeration area.

3.3. Sample Design

3.3.1. Sample Design

According to the objectives and coverage areas of the survey, a two-stage stratified cluster sampling method were designed and drawn independently for the sample of Emirati and non-Emirati households. The two stages increase the efficiency of the design and help achieve accurate and effective results.

3.3.2. Stratification

Within the selected sample of Emirati households: The geographical division was adopted, where each District is considered as independent stratum. According to the administrative classification of the Abu Dhabi Municipality, there are implicit strata within a single geographical stratum, by which the enumeration areas in the geographical stratum are divided into sub-strata based on the percentage of Emirati households. Within the selected sample of non-Emirati households (private and collective): The geographical division was adopted, where each geographical area is considered a main stratum (Abu Dhabi, Al Ain, Al Dhafra). Within the same region, each enumeration area in the sampling frame is divided into strata and included according to the percentages of Emirati households.

3.4. Sample Size

The sample of Household Income and Expenditure Survey 2024 was designed to produce reliable estimates of the total values of income and expenditure data for the population of Abu Dhabi, including the three regions of the emirate: Abu Dhabi, Al Ain and Al Dhafra.

In the Household Income and Expenditure Survey 2024, households were selected using a two-stage stratified cluster sampling method. The sample design used a special classification to deal with two diverse groups of residents of Abu Dhabi: Emiratis and non-Emiratis. Therefore, a two-stage stratified cluster sampling method was used at the level of Emirati and non-Emirati households. The sample was distributed over a period of 12 months, so that the survey results would be representative of income and expenditure patterns throughout the year.

The sample size was initially estimated considering the level of relative error in the sampling results of the previous Household Income and Expenditure Survey, with a margin of error not exceeding 10% at the district level for Emirati households, and 5% for non-Emirati households.

3.4.1. Distribution of the Sample Across the Months of the Year

As mentioned earlier, income and expenditure data in this survey are affected by some seasonal variables. To deal with these seasonal changes, the survey sample must be distributed over all months of the year to ensure that the sample covers all seasonal cases. The sample distribution process is as follows:

- Dividing the total survey sample into 12 parts or sub-samples, so that the number of households is equal in all sub-samples or parts, and each part represents one month.
- The part (or monthly sample) should be representative of all segments of society.

3.5. Sample Selection

- Drawing primary sampling units (first stage): A sample of primary sampling units for Emiratis is drawn from each stratum, according to the Probability Proportional to Size (PPS) Sampling method, which gives a greater probability for large enumeration areas to appear in the sample. In the same manner, primary sampling units for non-Emiratis are drawn at the regional level.
- Drawing the second stage sample: Drawing 12 households randomly from each enumeration area, according to the systematic random sampling method.

3.6. Sample weighting

3.6.1. Sample Weights

Base weight: The initial sampling weight for a single household is the reciprocal of the probability of the household appearing in the sample. The probability of the household appearing in the sample is the product of the probability of selecting the enumeration area from the stratum by the probability of selecting the household from the enumeration area, and is as follows:

$$P_{\mathrm{hi}} = \frac{nh \times M_{\mathrm{hi}}}{M_{\mathrm{h}}} \times \frac{m_{\mathrm{hi}}}{M_{\mathrm{hi}}} = \frac{n_{\mathrm{h}} \times 12}{M_{\mathrm{h}}}$$

The base weight of the household is:

$$W_{hi} = \frac{M_h}{n_h \times 12}$$

Where:

- P_{hi}: Is the probability of drawing household (i) from stratum (h).
- n_h: Number of primary sampling units (enumeration areas) drawn from stratum (h)
- M_h: Total number of households in the frame within stratum (h)
- M_{hi}: Total number of households in the frame within enumeration area (i) in stratum (h)
- m_{hi}: Is the number of households drawn from cluster (i) in stratum h and is equal to 12 households.

Adjusted weight: Adjustments to the weights within a cluster are carried out based on the number of responses in the cluster. If the response of the withdrawn households is complete (12), the initial weight remains the same as the adjusted weight. However, if the response within a cluster is less than 12 households, the adjusted weight is as follows:

$$W'_{\mathrm{hi}} = W_{\mathrm{hi}} \times \frac{m_{\mathrm{hi}}}{m'_{\mathrm{hi}}}$$

Where:

- W'_{hi}: Is the adjusted weight of the household within cluster (i) in stratum (h)
- W_{hi}: Is the base weight of the household within cluster (i) in stratum (h)
- m_{hi}: Is the number of households drawn from cluster (i) in stratum (h) and is equal to 12 households.
- m'_{hi}: Is the number of responding households from cluster (i) in stratum h that are less than 12 households.

Final Weight: The total adjusted sample weights of households is equal to the total number of households in the sampling frame, and the adjusted sample weight should be adjusted to reflect the actual total number of households in the emirate during the survey year. The actual total number of households is estimated based on both populations estimates, household size estimates (at each regional level) and household type (Emirati, non-Emirati, collective), in which:

$$(total\ HHs)_k = \frac{(total\ Pop)_k}{(HHsize)_k}$$

Where:

- (Total HHs) k: is the estimated number of households at level K.
- (Total Pop) k: Estimated population at level k
- (HH size) k: Estimated average household size of the sample at level k

Based on the above estimate number of households in each region and by household type, the adjusted sample weight of households is multiplied by the correction factor (cf_k):

$$cf_k = \frac{(total\ HHs)_k}{(total\ HHs\ in\ the\ Frame 2019)_k}$$

Finally, the final household weight $(W_{hi})_{final}$ for each household at level k is estimated by:

$$(W_{hi})_{k.final} = cf_k \,.\, W'_{hi}$$

Sampling weight for individuals: Each individual from the same household takes the household weight to which he belongs, and then the weight is adjusted to match the population estimates, according to the region, nationality (Emirati, non-Emirati), gender (male, female) and age groups (0-14), (15-64), (65 and over).

3.7. Statistical Estimation

According to the above-mentioned sample design, the total estimate of any variable such as expenditure, income, etc. is weighted according to the following equation:

$$\hat{Y} = \sum_{h=1}^{L} \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} (W_{hi})_{final} \cdot y_{hij}$$

Where:

- $\hat{Y}$: Is the estimate of total
- y_{hij}: Is the value of the variables belonging to the household (J) within the cluster (i) in the stratum (h)
- $(W_{hi})_{final}$: Is calculated based on the sampling weight of the household in cluster (i) within stratum (h).

The estimate of proportion including the average values is calculated as the average household expenditure or average household income, or proportion of the expenditure, or consumption of a consumer good, or a group of expenditures according to the following equation:

$$\hat{R} = \frac{\hat{Y}}{\hat{X}}$$

Where the totals $\hat{Y}$ & $\hat{X}$ are estimated as in the previous equation.

3.8. Sampling Method in Labor Camps

The sample was designed using two-stage stratified cluster sampling method, where the Labor camps were divided into strata according to the region and camp size (number of workers). The Labor camps in Abu Dhabi were divided into three strata: small, medium and large, the same was for the Al Dhafra and Al Ain regions, where they were divided into two categories: small and medium, the large camps were selected in their entirety, while the sample was drawn from the medium and small camps. The sample size of the Labor camps was 936 workers, to ensure the distribution of the sample and implement the above-mentioned design, the sample was divided into clusters of 12 workers in each cluster. Thus, the total number was 78 clusters, where the sample was distributed proportionally to the number of workers in the camps within the stratum. In the first stage, the Labor camps were drawn from the available frame proportionally to the size. In the second stage, the sample of individuals was drawn from the camps using the systematic random method.

4. Data Collection

The data collection phase constitutes the largest proportion of the project phases, and the household type is required to be part of the selected sample. However, if the type of household differs from that drawn in the sample, it should be handled according to the alternative selection criteria, and this should be noted in the form.

Data is collected through personal interviews with households, follow-ups by phone, and through electronic questionnaires loaded on tablets.

4.1. Data Collection Methods

Data will be collected in this survey according to the following stages:

4.1.1. Stage One: Using Administrative Data

The available registry data at the center was used to obtain data for a set of survey variables, to reduce the burden on the respondent. This process can be summarized as follows:

- **Firstly:** As is done in all surveys, the cover page data is uploaded to the tablet device (IPAD), as received from the sampling frame, such as: head of household name, household type, the number of household members, the geographical data (region, residence address), and the telephone number.
- **Secondly:** This survey was distinguished from previous surveys, where data on some variables that are available in the administrative records were uploaded to the tablet device (IPAD), and data for the variables shown in the table below were provided and uploaded as received from the records:

Variable name		
Individual ID Number	Scientific specialization for secondary school and above (for the individual)	The workplace where the individua has worked or is currently working
Relationship to the Head of Household	Marital status	Net salary
Gender	Individual classification according to Labor force	Total salaries and wages in Cash
Date of Birth (Day/Month/Year)	What is the work sector of the institution in which the individual currently works?	Total cash/in-kind benefits
Nationality	Current main economic activity of the institution in which the (individual) currently works	Total income from employment
Educational Enrollment	Current main occupation (for the individual)	Rented buildings
Educational Level	Employment status (for the individual)	Pensions

When selecting data sources, if it is found that data for some variables are present in more than one source, in this case, special criteria are adopted that determine the priority in selecting the source, so that the variable is linked to the appropriate source, in order to obtain the most accurate data, the data of these variables are uploaded to the tablet device (IPAD), and then the questionnaire is ready for field visits to the sample units, through which the enumerator reviews the uploaded data to the device with the respondent, and updates what needs updating from that data, and then begins the next stage of collecting the remaining data.

It is worth noting that it is possible to use the data of the household income and expenditure survey to update the registers data, by linking the databases of the registers with the survey database, and by using a mechanism prepared by the IT team, the updated survey data is reflected in the databases of the registers.

4.1.2. Stage Two: Field Visits

At this stage, the enumerator communicates with the households specified in the sample, and interviews the respondent (face to face) so the data is collected as follows:

- Using an ID reader if all the original IDs are available with the respondent, in which some of the respondent's main data is obtained by inserting the respondent's ID card into the reader and uploading the data to the tablet (IPAD).
- The enumerator completes the respondent's data, which was not uploaded through the administrative data or through the ID card reader and enters it into the tablet (IPAD).

During the data collection process, the collection rules for each type of household must be considered, as shown below:

- Private households (Emirati and non-Emirati): Survey data is collected for all household members, including servants, directly by the head of the household or a responsible household member (aged 15 years or older), and not from a worker or servant in the household.
- Collective households: Data for these households is collected by interviewing each household member individually.
- Labor camps: Individual interviews are conducted with workers who are randomly selected in each camp.

4.2. Data Collection Frequency

The methodology for implementing this survey is based on following up each household in the sample for a full month through several visits to the household during which all the required data is collected from the household. The frequency of collecting statistical data for this survey varies according to the type of data, as follows:

- **Identification data:** collected once during the first week of the household survey month.
- **Housing characteristics data**: collected once during the first week of the household survey month.
- **Individuals' characteristics data:** collected once during the first week of the household survey month.
- **Household income data:** collected once during the last week of the household survey month, and the reference period for income data is the previous year ending at the end of the household survey month.
- **Household expenditure data**: collected through multiple visits with an average of two visits per week.
- **Data of workers in Labor camps:** It is visited three times in the following manner:
    - First visit: to introduce the survey and its importance and to request updating the data of camp residents.
    - Second visit: to receive the updated list and select workers participating in the survey.
    - Third visit: Conducting the interview and collecting survey data, the survey questionnaire is only filled out during this visit.

The data collection of workers in Labor camps includes two rounds, conducted during two quarters of the survey year, i.e., six months, distributed as shown below:

- First round: includes the second quarter (Q2) in the period (from April to June 2024).
- Second round: includes the fourth quarter (Q4) in the period (from October to December 2024).

4.3. Completing Survey Data

4.3.1. Completing Household Data

The direct method is used in the data collection process, through personal interviews. Each month, a number of households are assigned to each enumerator, to follow up with them throughout the entire month and complete the data collection process. In the following month, another number of new households are assigned to the enumerator, and so on for all months of the year. As for completing survey data during the survey month, it is done through several visits to the household, as follows:

- Introductory visit: The visit takes place during the days preceding the survey month according to the schedule previously set with the controller during the household notification stage, where the controller accompanies the enumerator to introduce him to the household, at this point the enumerator begins to introduce again the survey and its objectives, and how the household should records daily expenditure in the auxiliary household notebook, starting from the beginning of the survey month while keeping daily spending bills, and the enumerator begins to record the geographical data on the cover of the questionnaire, complete the two questionnaires (housing, individuals) and complete the expenditure data (annual) on durable goods, taking into account the household's circumstances and the size of the data for extended households, so that the data is completed at another date. An agreement is made with the household regarding the frequency of visits for data collection.

- Follow-up visits and collecting the expenditure: Income data is completed in the fourth week, but during the four weeks of the survey month, the enumerator visits the household at a rate of at least twice a week depending on the household's circumstances, in order to ensure that the household records its daily expenditures in the auxiliary household notebook, and then collects the bills and expenditure that were recorded in the auxiliary notebook, and provides a new notebook if the old one is filled, and the enumerator begins to enter the expenditure recorded in the auxiliary notebook and the bills collected from the household into the system periodically during the week, and thus the enumerator continues in the same manner until the end of the survey month.

- Final visit: During the three days following the end of the survey month, the enumerator makes a final visit to the household, which he collects the auxiliary household notebook and completes any missing data.

4.3.2. Completing Data for Labor Camps

The direct method is used in the data collection process, through personal interviews. Given the special circumstances of this category of the population related to their working hours, and considering that their spending is concentrated on certain goods and services, the program and periodicity of the enumerator's visits to Labor camps differs from that to private households, as the camp will be visited three times according to the following method:

- **First visit:** This is the introductory visit which take place at the beginning of the survey month during the camp (facility) notification phase, where the controller introduces the survey and its objectives and then requests an updated list of data for individuals residing in the camp.
- **Second visit:** During this visit, the updated list is received according to the date previously set with the controller during the camp notification phase, and then the workers under study are selected.
- **Final visit:** Conducting personal interviews and completing the survey data, where the questionnaire is filled out during the last visit only.

4.4. Procedures for Closing the Monthly Household Sample

By the end of the last day of the month, reference period for completing the household data may have ended, and therefore the procedures for completing the data for the last week of the household are usually carried out during the first days of the following month.

From the above, we note that the procedures for completing the data of the monthly household sample for the previous month take place during the first week of the current month, in addition to the task of opening new households for the current month, which increases the tasks and responsibilities of the field enumerator during the first week of each month, and this requires him to plan in advance to cover all the tasks required during this week.

The nature of the work during the first week requires the enumerator to give priority to the new households whose data needs to be completed during this month, and to reduce the burden, during the first visit to the household, it is sufficient to introduce the survey and its objectives and provide the auxiliary notebook for recording expenditure data throughout the week, the enumerator will then complete the data on the characteristics of individuals, the household, and the housing during the subsequent visit.

As for the households of the previous month, they are visited during the first week of the following month to complete the income data and collect the auxiliary household notebook that covers the last days of the survey.

4.5. Methodology Used for Household Replacement

4.5.1. Response Cases

During household's follow-up, the enumerator may encounter cases of complete non-response; that means, the household does not cooperate with the enumerator completely starting from the first visit, or partial non-response; that means, the household responds for a certain period of the month and then refuses to cooperate and continue. These cases are outlined as follows:

- The household refuses to cooperate or continue during the first visit: In this case, the field controller is provided with a list of alternative households to choose a replacement for the refusing household.
- The household refuses to cooperate or continue after less than two weeks: A new household is selected from the list of alternative households to replace this household, and during the visits scheduled for the new household in the following weeks, data on its expenditure during the first two weeks is verified.

  The household refuses to cooperate or continue after the first two weeks of the visiting month: In this case, no replacement household is selected, instead, the remaining data for the remaining two weeks is estimated according to the statistical methods for handling missing data.

4.5.2. Providing alternatives according to household type

- **Emirati household:**

- If the household in the selected sample is an Emirati household, and during the visit it becomes clear that the household is still residing in the unit, then the household's data is collected.
- If the household in the selected sample is an Emirati household, and during the visit it becomes clear that the household has disappeared and has been replaced by another Emirati household, then the data of the Emirati household residing in the unit at the time of the visit is collected.
- If the household in the selected sample is an Emirati household, and during the visit it becomes clear that the household has disappeared and has been replaced by a non-Emirati household or a collective household, then an alternative to the Emirati household must be selected and should be selected from the same cluster.
- If the household in the selected sample is an Emirati household, and during the visit it becomes clear that the unit is vacant or its status has changed, such as being used for work purposes, demolition, or other circumstances, then a replacement for the Emirati household is selected and selected from the same cluster.

- **Non-Emirati household:**

- If the household selected in the sample is a non-Emirati household, and during the visit, it is found that the household is still residing in the unit, then data for that household is collected.
- If the household selected in the sample is a non-Emirati household, and during the visit it is clear that the household has disappeared and has been replaced by another non-Emirati household or collective household, then the data of the non-Emirati household or collective household residing in the unit at the time of the visit is collected.
- If the household in the selected sample is a non-Emirati household, and during the visit it is clear that the household has disappeared and has been replaced by an Emirati household, then a replacement for the non-Emirati household is selected, and it should be chosen from the same cluster.
- If the household selected in the sample is a non-Emirati household, and during the home visit at the time of the survey, it is found that the unit is vacant or its status has changed, such as being used for work purposes, demolished, or other cases, a replacement for the non-Emirati household is selected, and the replacement must be from the same cluster.

- **Collective household:**

- If the household in the selected sample is a collective household, and during the visit it is found that the household is still residing in the unit, then household data is collected.
- If the household in the selected sample is a collective household and during the visit it is found that the household has disappeared and has been replaced by another collective or non-Emirati household, then the data of the collective household residing in the unit at the time of the visit is collected.

- If the household in the selected sample is a collective household and during the visit it is found that the household has disappeared and has been replaced by an Emirati household, then a replacement for the collective household is selected, provided that the replacement is a non-Emirati household or a collective household and that the replacement is from the same cluster.
- If the household selected in the sample is a collective household, and during the visit it becomes clear that the unit is vacant or its status has changed, such as being used for work purposes, demolished, or other cases, a replacement for the collective household is selected, and the replacement must be a non- Emirati household or a collective household, and it must be from the same cluster.

4.6. Guidelines (During Data Collection)

- The principle of acquisition has been adopted in this survey, which means recording the value of the transaction (expenditure or income) at the time of maturity, rather than at the time of payment or receipt. Acquisition means that expenditure includes all goods and services obtained by the household during the reference period, regardless of whether they were paid for during that period, and regardless of whether they were consumed during the same period or not.
- Household expenditure includes spending on domestic workers and those in similar roles. However, any personal expenditure incurred by the domestic worker or driver from the wages they receive are not considered part of the household's expenditure.
- If there is an expenditure item that pertains both to the household and to a household business, such as a car that is occasionally used for household purposes, the expenditure on the car should be allocated based on the proportions of its use for the household and for the business. If such a division is not possible, the predominant use of the car will be considered for allocation.
- If the household obtains goods from an entity it owns for consumption purposes, without paying their monetary value, the value of these goods will be estimated and included as part of the household's expenditure.
- If the household provides goods and services as gifts or donations to others, the monetary value of these goods and services is estimated and included in the table designated for this purpose in the questionnaire.
- If the household acquires a durable good during the reference period through an installment payment plan, the full value of the item will be included in the household's expenditure.
- Household expenditure include the estimated rent value for owner-occupied housing, as well as housing provided to some households as an in-kind benefit by the employer, is included in the.
- The value of installments due from the household during the specified period is not included in the expenditure; instead, it is recorded in the capital operations table.
- The household's payments for loans (whether loans given to others or loans repaid) are not included in the household's expenditure. Instead, they are recorded in the capital operations table.
- Household expenditure does not include investment expenditure of any kind i.e., expenditure allocated to purchasing or acquiring assets, including homes, with the aim of generating income, such as machinery and equipment for a business owned by the household.

4.7. Response Status Rules

4.7.1. Response/Visit Status

There is a section designated for recording the results of the household and housing unit visit within the cover of the questionnaire. The table below outlines the results of the visit and the status of the questionnaire, along with descriptions of the field conditions. The controller must attempt and search by all available means and inquire with neighboring units about the field cases, and then coordinate with the supervisor.

Response/Visit Status	Questionnaire Status for the Responding Household	Discerption
Respondent	Completed	Answering all questions for all questionnaires (Housing, Individuals, Income, Expenditure).
	Partially Completed	There are no answers to some of the basic questions (Income and Expenditure) within the questionnaires.
Temporarily Closed		The housing unit was visited and found closed. The controller must attempt to inquire with neighboring units and then record the identification details for the survey, including their name and phone number. The visit should be made three times at different times before the deadline to request alternatives. If the unit remains closed, it should be marked as permanently closed, and an alternative should be requested.
Permanently Closed		The housing unit was visited three times at different times, with the survey identification details recorded and neighboring units questioned. However, the unit remains closed (the visits were made before the deadline for requesting alternatives).
Vacant		The housing unit was visited and found to be vacant. Examples include a building that is empty, newly constructed, and prepared for rent, or a building that i abandoned.
Refused		The household explicitly refused to participate in the interview and does not wish to take part in the survey
Other (Specify)		Add other cases that are different from the previous ones.

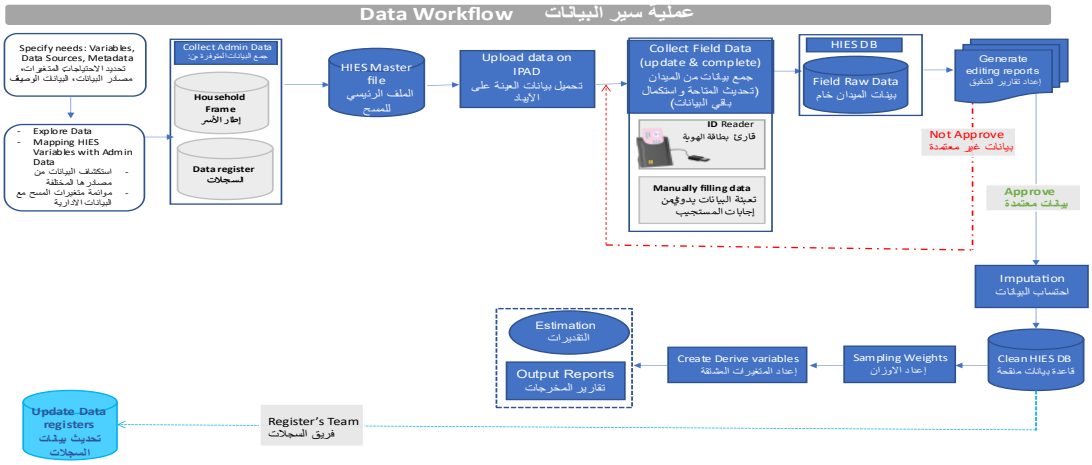
4.7.2. Verification of Questionnaire Completion

While filling out the questionnaires with the respondent, the enumerator must ensure that all items of the questionnaire are completed by the respondent. If there is no response for a particular item, the enumerator should verify the reason for the non-response and apply the appropriate code for the item (so that it does not affect the calculations), according to the following table:

Reason	Definition	Code
Refused to Answer	The respondent refused to provide an answer	-999
No Answer	No answer in specific item	-1
The respondent does not know the answer	The answer is unknown to the respondent (for example, the respondent is not authorized to provide the answer)	-990
The answer is not Applicable	If the answer to a question does not apply (for example, the individual does not have a habitual residence)	-998
The answer is unavailable	The answer is unavailable to the respondent	-997
The value of the answer is zero	If the value of the item is zero	0
There is no phone or fax	If the answer to the phone or fax question does not apply	9999999999
There is no email address	If the answer to the email question does not apply	NA@NA.NA
There is no website	If the answer to the website question does not apply	www.NA.com

4.8. Data Flow Process

The diagram below illustrates the process that will be followed during the data flow, its processing, and the production of the final clean data.



5. Data Processing

5.1. Data Validation and Editing

5.1.1. Data Validation

Data validity is verified upon receipt by linking and comparing it with other relevant databases, such as data from other surveys like the Labor force survey, registry data at the center, as well as comparing it with the data available from previous years to ensure external consistency. This process ensures the addition and correction of essential information when necessary.

5.1.2. Data Editing

Editing involves procedures aimed at detecting incorrect values, as well as identifying inconsistent and outlier values. This process is intended to improve the quality, accuracy, and efficiency of the data, ensuring its suitability for the purpose for which it was collected. Editing includes measures and indicators to assess the level of data accuracy, such as the number and percentage of fields in which errors are detected relative to the total number of fields in the database.

5.1.2.1. Editing Types

- Structural editing: Can be used to check coverage, and complete essential fields.
- Consistency test: This is done if the expected relationships between the variables are correct or known, whether logical or acceptable, and this process includes testing the consistency between the variables.
- Missing values editing: If the field is left blank and there is no specific answer is provided, a mark will appear in it to highlight it, and it must be filled with the correct value by referring to the data source, or through statistical processing.
- Checking for duplicate: This type of checking aims to verify that the data for each unit is recorded in the database only once or that it is not duplicated.

- Outlier detection: this is done by examining the distribution of current data, relying on data series for previous periods, or relying on different data sources, which facilitates the process of detecting values that may be considered unusual or outliers.

5.1.2.2. Data Editing Mechanism

A specific mechanism is followed in the data editing, starting from the moment the data is received, through automated editing, where the pre-prepared validation rules are applied to the program, which links different question answers with each other, so that there is consistency between them, and ensures that the answer is within the permissible range of that question's answer, then a specialized team of editors reviews the logical consistency of the data in the analysis stage, to ensure the consistency of the time series data and ensure its quality, by verifying the quality of the application of all technical operations related to implementation of the survey, and this stage includes verifying a number of indicators that reflect the reality of the data collected, and it is in two stages:

First stage: In the middle of the month, the Income and Prices Department reviews the entered data and conducts preliminary tests on the accuracy and consistency of the data by linking the various variables to each other.

Second stage: begins at the end of the month, where the compatibility and consistency of the data of all variables in the questionnaire are tested, as well as the validity of the transitions in the questionnaire questions and the discipline in recording the required answers. To verify this, a file is obtained to conduct the testing on it through the following steps:

- Calculating specific statistical indicators such as response rates, sample matching rates of households in terms of nationality (Emirati/non-Emirati/collective), and other similar rates.
- Calculating some indicators such as averages and ratios and identifying the extent of the logic of these indicators initially.
- Preparing cross-tables that link the various variables in the survey, such as linking the individual's work status to his income, or the educational status of the head of the household to the level of household expenditure, to assess the logic of these relationships.

5.1.2.3. Editing Stages

The editing process in all its stages depends on editing rules and principles previously specified for researchers, as data editing goes through several basic stages, the most important of which are:

- Automated editing rules: Automated editing rules have been established for all survey questionnaires, where housing characteristics variables have been linked to individual characteristics variables and income and expenditure data, through which data of different variables are linked to achieve high quality output. This type of editing controls any errors that appear in the questionnaire during the entry process, as it will not allow errors to pass. For example, the head of the household must be 15 years old or older, when entering this data, the device does not allow the head of the household to be registered if the age is less than 15, another example for expenditure, it is possible to divide the value by the quantity to obtain the average price of the commodity, at the level of each commodity, a minimum and maximum price limit were set, if the result exceeds this range, the device does not allow entry, and so on.

- Preliminary data editing: This is done by continuously following up on the auxiliary household notebook during household visits, and by following up on the questionnaires for housing, household, and individual characteristics in addition to income. The editing process is carried out at this stage by the controller.
- Desk editing: This process is carried out by a specialized editing team, which reviews all types of questionnaires completely. This editing stage begins after the completion of the household and individual characteristics questionnaires. As for the expenditure questionnaire, its editing stage begins weekly after completing all the data for the week and transferring it from the auxiliary household notebook to the main questionnaire during the household month. The final stage is the editing of income questionnaires.

5.2. Handling Missing and Outlier Data

Imputation is the process of replacing missing data, incorrect values, and outliers with estimated values, using various imputation methods, and then analyzing the complete data with the imputed value as the actual value. Imputation methods used to solve problems associated with non-response (unit/item within unit) are illustrated in the following ways.

Unit non-response: The common statistical practice to correct for unit non-response is to adjust the weights in order to compensate for unit non-response.

Item non-response: Missing values or extreme values for some variables included in this survey are addressed through the imputation method using alternative values for each missing or extreme value. The most important methods used in this field are:

5.2.1. Imputation of missing values in income

- The k-Nearest-neighbor (kNN) imputation method: This method is used in the absence of income data for a specific individual, where the individual's characteristics are studied from all aspects, and based on that, the available income value for the individual most similar in characteristics is identified and used in the imputation process.

5.2.2. Imputation of missing values in expenditure

- The arithmetic mean imputation method: This method is used when there are missing expenditure values for a specific household, by calculating the arithmetic mean of the expenditure groups for households in the same cluster, so that those averages are used to replace missing values. It is worth noting that this method is used in particular if the household stops responding after two weeks of filling in the expenditure data.

5.2.3. Imputation values in capital operations

- Imputation using specific values: These values are determined using the logical correlation between variables, where the correlation between the missing value and the variables that are related to this variable is searched for, within the individual's data set in the same survey, to

infer the value that can replace the missing value. For example, ownership of land or buildings can be inferred through their rents or sales.

It is worth noting here that although it is possible to replace data using the previous methods, the following:

- Some values cannot be replaced and must be marked as "Not specified", or the household must be contacted to complete the data.
- The imputed data must meet all editing checks.
- The imputed values, methods and sources of imputation must be marked.

5.3. Calculating Indicators Methods

The methods for calculating the indicators of the results of this survey varied according to the variety of the required outputs. The results of this survey included cross-tables for the distribution of households and individuals, average income/expenditure of the household/individual, and total income/expenditure. The following are the methods of calculating these indicators:

- **First:** Distribution of households and individuals according to household type, region, and categories of income /expenditure/ household/individual.

Cross tables were implemented for households and individuals according to the above variables, where the cell in the table represents the total of households /individuals according to the type of variables specified in the table. For example, if the table is: Distribution of households according to region and household type, the first cell represents the Emirati households living in the Abu Dhabi region. Accordingly, the equation for this cell is: The weighted total of the Emirati households living in the Abu Dhabi region.

- **Second:** Average income/expenditure of household/individual by household type, region, and categories of household /individual income/expenditure.

Cross tables were implemented for households and individuals according to the variables above, where the cell in the table represents the average income/expenditure of household/individual according to the type of variables specified in the table. For example, if the table is: Average household income by income sources and household type, the first cell represents the average income of Emirati households from salaries and wages, and accordingly the equation for this cell is: The weighted sum of Emirati household income from salaries and wages divided by the weighted total of the Emirati households. As for the average income of Emirati per individual, it is calculated as follows: the weighted sum of Emirati household income from salaries and wages divided by the weighted total of Emirati individuals.

If the table is: Average household expenditure by expenditure groups and by household type, the first cell represents the average expenditure of Emirati household on the food and beverage group, accordingly, the equation for this cell is: The weighted sum of Emirati household expenditure on all goods and services in the food and beverage group divided by the weighted total of Emirati households.

As for the average expenditure per individual according to expenditure groups and according to household type, the first cell represents the average expenditure of Emirati individual on the food and beverage group. Accordingly, the equation for this cell is: the weighted sum of Emirati household expenditure on all goods and services in the food and beverage group divided by the weighted total of Emirati households.

- **Third:** Totals of household income or expenditure according to the type of household, region, and Income/Expenditure categories for households/individuals.

Cross tables were implemented for households and individuals according to the variables above, where the cell in the table represents the total income/expenditure of household according to the type of variables specified in the table.

For example, if the table is: Total income of household by income sources and household type, the first cell represents the total income of Emirati households from salaries and wages, and accordingly the equation for this cell is: The weighted sum of Emirati households' income from salaries and wages.

If the table is: Total household expenditure on the main expenditure groups according to the type of household, then the first cell represents the total expenditure of Emirati households on the food and beverage group, and accordingly the equation of this cell is: The weighted sum of expenditure of Emirati households on the food and beverage group.

- **Fourth:** The relative importance of goods/services according to the type of household and region.

Cross tables were created for households according to the variables above, where the cell in the table represents the relative importance of the good/service according to the type of variables specified in the table.

For example, if the table is: The relative importance of goods/services according to the type of household, the first cell represents the relative importance of Emirati households' expenditure on the commodity "Indian Basmati Rice" and the equation of this cell is: The weighted sum of Emirati household' expenditure on "Indian Basmati Rice" divided by the weighted sum of Emirati households' expenditure on all goods and services multiplied by 100%.

6. Survey Output

The survey provides a set of key statistical outputs, and the Excel file below shows these outputs.

قائمة المخرجات HIES - Final.xlsx

7. Statistical Quality of the Survey

7.1. Methodology changes

To achieve good coverage of the data of the population residing in the Emirate of Abu Dhabi, several sources of data for the Household Income and Expenditure Survey for the year 2024 were relied upon, which included: administrative data from the relevant authorities, Abu Dhabi's 2023 registry census data, and field survey data to cover variables not covered by other sources.

7.2. Time series of Data

The Household Income and Expenditure Survey was conducted on a regular basis (every five years) for the following years (1996/1997, 2007/2008, 2013/2014, 2019, 2024).

7.3. Data accuracy and potential sources of error

In the Household Income and Expenditure Survey, many sampling and non-sampling errors may occur during the stages of surveying, collecting and calculating these indicators. The Statistics Centre - Abu Dhabi provides statistics that reflect the accuracy of the data through the Household Income and Expenditure Survey Sample Evaluation Report, which is complemented by the Survey's Sampling Design Report. Other errors may appear in data collection and processing as follows:

- Errors that occur during the data collection process due to human error in filling out forms and conducting the survey in a standard manner.
- Coverage: Using an old frame may result in selecting a household that no longer exists or whose nationality has changed, etc.
- Measurement: Errors that arise from any influence of the interviewer on the respondent - the solution may be to assign someone else to interview him.
- Data processing errors.

7.4. Publication and Availability (Data Accessibility)

Statistics are published on the website of the Statistics Centre – Abu Dhabi in PDF and Excel format.

7.5. Revision and Review Policy

No written audit policies were used by SCAD in the Household Income and Expenditure Survey methodology. However, it is important to note that a booklet on the Household Income and Expenditure Survey has been designed to remind users of the confidentiality of the data collected, "In accordance with the law establishing SCAD, all individual data provided by households covered by the survey will be treated as strictly confidential and used exclusively for statistical purposes."

7.6. Limitations of dataset

The following categories of the target population were excluded from the 2024 Household Income and Expenditure Survey:

- Sheikhs and VIPs
- Diplomatic missions
- Holders of unusual residence

8. Institutional environment

Statistics Centre – Abu Dhabi is the competent government entity responsible for organizing statistical activities in the Emirate of Abu Dhabi. The Centre plays a pivotal role in supporting decision-makers, policymakers and planners in the Emirate. The Centre organizes all statistical activities in the Emirate with its strategic partners in the statistical system of the Emirate of Abu Dhabi, in accordance with the Law establishing the Statistics Centre – Abu Dhabi. Under this law, the Centre is the entity responsible for developing and organizing statistical work in the Emirate of Abu Dhabi and producing, analyzing and publishing all official statistics related to the Emirate.

9. Glossary

- **Household:**

It is a person living alone or a group of related or unrelated persons who typically live in the same private housing and spend on their consumption needs such as goods and services from the pooled income.

- **Private Households:**

The household may be either:

- Single-person household - a person who provides himself or herself with food or other necessities of life without living with anyone else; or
- Multi person household - a group of two or more individuals who live together and jointly provide food or other necessities of life. The individuals in the group may pool their incomes and may or may not have a shared budget, to a greater or lesser extent; they may be related, unrelated, or a combination of the two.

Members of Multi person household can be identified based on any of the following criteria:

- Sharing housing facilities (either contributing to housing costs or benefiting from costs paid by others).
- Sharing at least one meal each week; or be financially dependent on others for at least two of these three types of items: food, housing, or other expenses. In this case, the household is referred to as the “consumer unit.”

- **Collective Households:**

A group of individuals (2 or more) regardless of their nationalities, who share the same housing, but do not share food and other expenses, and are typically not relatives.

- **Labor Camps:**

A group of workers working on the same project, living in the same collective housing, and not sharing food.

- **Expenditure:**

The cost of goods and services acquired during the reference period for private use, whether the goods are paid for or consumed.

- **Household Expenditure:**

Money spent on purchasing goods and services used for life purposes, as well as the value of goods and services received by the household from the employer for household consumption.

- **Income:**

Income consists of all current revenues, whether in cash or in kind, received by a household or one of its members, for the purpose of support or current consumption.

- **Household Income:**

Household income consists of the following sources of income: income from employment, income from own production, income of the self-employed and employers, rental income, property income, and income from transfers.

- **Age:**

A person's age in full years according to date of birth.

- **Housing/ Dwelling:**

It is defined as a group of rooms located within a building that is independent and intended for long-term residential use. To be an independent dwelling, it must contain cooking and bathing facilities within the fixed fixtures of the building. Types of dwellings include: palace, villa, Villa Extension, Part of a Villa, Apartment, Arabian House, Part of an Arabian House, room, other (specify).

- **Classification of individual consumption by purpose (18 COICOP):**

International Standard Classification Framework for Classifying Consumer Expenditure on Goods and Services.

- **Consumer Price Index (CPI):**

A general measure of inflation in the prices of goods and services. Specifically, it provides a measure of changes over time in the cost of a fixed basket of goods and services that households receive.

- **Notebook:**

A notebook in which each individual in the household participating in the survey records their daily expenditures throughout an entire month.

- **Area Sampling**

Selection of geographical area units that form the sampling frame (which may include selecting districts, which are defined as planned subdivisions of administrative regions).

- **Two-Stage Stratified Cluster Sampling:**

A sampling method used to obtain efficient estimates by selecting a subset of elements from specific clusters.

- **Confidence Level:**

  It describes the degree of statistical confidence through which the accuracy or margin of error of survey estimates is obtained, typically 95% confidence level is considered the standard.

- **Age Categories:** The age groups were adopted according to the following classification:

Category		
4-0	29 - 25	54 - 50
9 – 5	34 - 30	59 - 55
14 - 10	39 - 35	64 - 60
19 - 15	44 - 40	+ 65
24 - 20	49 - 45	

- **Household Annual Expenditure Categories**

Category	
0 - < 144000	720000 - < 864000
144000 - < 288000	864000 - < 1008000
288000 - < 432000	1008000 - < 1152000
432000 - < 576000	1152000 - < 1296000
576000 - < 720000	1296000 +

- As for the family income categories, they were divided according to the same divisions as the expenditure categories.
- **Region:** (Abu Dhabi/Al Ain/Al Dhafra)

- **Housing / Dwelling:** (Palace (2) Villa (3) Villa Extension (4) Part of a Villa (5) Apartment (6) Arabian House (7) Part of Arabian House (8) Room (9) Other (specify).

- **Economic activity:** According to the International Standard Industrial Classification of All Economic Activities, version ISIC4, at level 1.

- **Education level:** (According to the grade in school and pre-school education and according to the stage after school education)

- **Gender:** (Male/Female)

- **Household Size:**

Size	
3 - 1	15 - 11
6 - 4	+ 16
10 - 7	

- **Household Type:** (Emirati Household / Non-Emirati Household / Collective Household)

- **Source of Income:** Income from Employment, income from self-production, income of self-employed and employers, rentals income, property income, and income from transfers.

- **Nationality:** (Emirati / Non-Emirati)

- **Occupation:** According to the International Standard Classification of Occupations (ISCO) at the first level.

- **Purchase Method:** (Shopping from Abu Dhabi Emirate / Shopping from another Emirate / Shopping from outside the country / Purchasing from internet).

- **Annual Rent Value Categories**

Category	
0 - < 40000	200000 - < 240000
40000 - < 80000	240000 - < 280000
80000 - < 120000	280000 - < 320000
120000 - < 160000	320000 - < 360000
160000 - < 200000	360000 +

- **Employment Sector:** (Federal Government / Government Sector (Local) / Private Sector / Mixed (Public and Private) / Foreign / Diplomatic Mission / Non-Profit Organizations / No Establishment / Private Households / Other (Specify)).

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10. References

1. https://www.ilo.org/public/english/bureau/stat/isco/docs/publication08.pdf
2. https://unstats.un.org/unsd/classifications/Econ/Download/In%20Text/ISIC_Rev_4_publication_English.pdf
3. https://unstats.un.org/unsd/classifications/unsdclassifications/COICOP_2018_-_preedited_white_cover_version_-_2018-12-26.pdf)
4. https://unstats.un.org/unsd/nationalaccount/sna.asp
5. https://unstats.un.org/unsd/publication/seriesF/Series_F83Rev2en.pdf
6. https://www.ilo.org/public/english/bureau/stat/download/articles/2004-1.pdf
7. https://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-BF-03-003-__-N-EN.pd
8. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_087503.pdf

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