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# Labour Force Survey Methodology

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## **Overview**

The Labour Force Survey in Abu Dhabi is part of the integrated Household Targeted Survey program, which aims to produce an accurate database for the Emirate of Abu Dhabi and its three regions. The survey also determines the Labour force size associated with developing strategic plans for the Emirate of Abu Dhabi, employing human resources, and achieving rapid and advanced development.

The demand for this information comes in response to the requirements of the Abu Dhabi government in line with the continuous development of the Emirate's economy and in fulfillment of the Abu Dhabi Economic Vision 2030.

#### **General Background**

The Statistics Centre- Abu Dhabi (SCAD) began implementing the annual Labour force survey since 2012 up to 2020, within the framework of providing information and indicators on the size and distribution of the Labour force in the Emirate of Abu Dhabi and its regions, as well as the characteristics of the active population of employed and unemployed, within the following methodological pillars:

- The survey's objectives focused on obtaining annual indicators that reflect the reality of the workforce and the Labour market.
- Implementing the survey within an annual periodicity, during which the survey was conducted was determined in November of each year.
- Use of Personal Interviews "Face to Face" method for sample units to collect survey data.
- Using the random stratified cluster sampling design was drawn in two stages, without making a rotation of the sample parts, and with an average annual sample size of about 4,000 households.
- During 2012, the survey targeted the population within the age group (15-64 years), and since 2013 the targeted group in the survey has become the population (15+ years and more).

In response to the requirements of developing the Labour Force Survey to be in a quarterly periodicity starting from 2021, the Statistics Centre of Abu Dhabi has made some progress on methodology items related to survey periodicity and objectives and sample rotation and data collection methods. The items that follow will provide more information in this regard.

## **Objectives**

- Providing quarterly labour force estimates for the Emirate and its three regions.
- Estimating the current resident population's participation and unemployment rates and estimating the change in the estimates quarter by quarter and year after year with high accuracy.
- Providing data and indicators related to the size and distribution of the workforce in the Emirate of Abu Dhabi according to demographic, family, social and economic characteristics, including the related metadata.
- Defining the characteristics of employed and unemployed individuals.
- Identifying the methods used by the unemployed individuals to look for work.
- Identifying the factors that prevented some individuals from looking for work.

## **Targeted Community and Sample Frame**

The Labour Force targets the working-age population in the Emirate of Abu Dhabi and adults aged 15 or more who usually reside in the Emirate of Abu Dhabi.

The survey community will include the following categories:

- Population residing in private housing units:
  - 1. Private citizen families
  - 2. Private non-citizen families
  - 3. Group / joint families
- The population residing in Labour accommodation.
  - 1. Labour accommodation with restricted entry, for example, ADNOC
  - 2. General Labour accommodation

#### **Excluded from the Targeted Community**

The following categories are excluded from the targeted community of the survey:

- Visitors to the Emirate of Abu Dhabi have stayed in it for less than 6 months and do not intend to stay for 6 months or more, which means visitors who are not habitually residents in the Emirate.
- Inmates of institutions such as hospitals, psychiatric institutions, homes for the elderly, orphanages, and other similar institutions.
- Diplomats (members of diplomatic corps).

#### **Survey Coverage**

Geographically, the survey covers the three regions of the Emirate of Abu Dhabi: Abu Dhabi Region, Al Ain Region, and Al Dhafra Region. In addition, the population is targeted within the residents of the following families: private citizen families, private non-citizen families, group / joint families, and Labour accommodation.

#### Sample Frame

- Private and Group Families Frame: it is based on the General Population, Housing, and Household Census 2011 data, including annual, partial, and regular updates.
- Labour accommodation Frame: it is based on Zone corp 2020 higher economic zones data in the Abu Dhabi region, as well as the frame of General Population and Housing Census 2011 and its updates in Al Ain and Al Dhafra regions.

## Sample Design

#### Sample of Private and Group Families:

The household sample was designed and selected in accordance with the detailed objectives set for this survey, considering the coverage of the survey's main indicators at the following levels:

#### Main Levels

- The Emirate as a whole
- Territory (Abu Dhabi, Al Ain, and Al Dhafra)
- Nationality: Citizen / Non-citizen
- Gender: Male / Female

The Labour Force Survey sample is designed to be a representative sample of the Emirate of Abu Dhabi's three regions. Therefore, the survey's geographical layers were divided in such a way that each region of the Emirate is represented in a separate layer. These layers were divided in turn based on the percentage of Emirati families in each of the primary sampling units, as follows:

- Class 1: Percentage of citizen families 0% -24.9%
- Class 2: Percentage of citizen families 25% -49.9%
- Class 3: Percentage of citizen families 50% -74.9%
- Class 4: Percentage of citizen families 75% and above.

The household sample was selected in two stages. In the first stage, a sample consisting of primary sampling units (enumeration areas) was chosen in a proportional manner that allows the priority for the primary sampling units of large size to appear in the sample. A regular random sample is chosen in the second stage, consisting of 14 households in each of the primary sampling units. Therefore, the survey sample was designed to represent a stratified cluster sample of two stages.

#### Labour accommodation Sample:

The Labour accommodation sample was designed to constitute a representative sample of Labour accommodation at the level of the three regions of the Emirate of Abu Dhabi. Therefore, the Labour accommodation in each region were categorized according to their size. In the Abu Dhabi region, the division was as follows:

- First-class: consists of less than 350 workers.
- Second class: consists of workers ranging between 350-799.
- Third class: consists of more than 800 workers.

The sample for the Abu Dhabi region was withdrawn as follows:

Labour cities were chosen from Zonecorp data based on the number of establishments in each of them. The sample is then drawn from the primary sampling units in proportion to the required size based on the total number of workers in the primary sampling unit (camp). In addition, a random sample of 15 workers was selected from each of the primary sampling units. For AI Ain and AI Dhafra regions, the classes were divided as follows:

- First-class: consists of less than 400 workers.
- Second class: consists of workers ranging between 400-1500.

Third class: consists of more than 1500 workers.

In each class, a sample of the primary sampling units was selected in proportion to the required size in each class, which is determined according to the total number of workers in the primary sampling unit (camp). In each of the selected primary sampling units, a random sample of 15 workers was selected. Therefore, the survey sample was designed to represent a two-stage cluster stratified sample.

#### **Sample Size**

#### Sample of Private and Group Families

The sample size of the quarterly Labour force survey was determined based on the study of sampling errors resulting from the Labour Force Survey for previous years, where the sample size was modified at the regional level in order to obtain accurate quarterly estimates. Furthermore, the total size of the sample was 4144 families with 296 clusters, of which each cluster consists of 14 households. This sample was distributed into four replicates, with 74 clusters (1036) households per replicate.

The Master Sample was used as a sampling frame for the quarterly Labour Force Survey and which includes a total of eight replicates that are used to draw the quarter sample. In the first quarter, a sample of 4 replicates is drawn, and in the following quarter, 75% of the previous quarter sample (i.e., 3 replicates) is rotated, while a new duplicate sample is drawn from the Master Sample and so on for the remaining quarters.

The distribution of sample size for each quarter of 4,144 families according to the region is shown in the table below:

Region	Total Number of Enumeration Areas	Total Number of Families
Abu Dhabi	132	1848
Al-Ain	96	1344
Al Dhafra	68	952
Emirate	296	4144

#### Labour accommodation Sample Size

The sample size of Labour accommodation reached 90, which were distributed across the following regions:

City	Camps	Workers
Abu Dhabi	64	960
Al-Ain	9	135
Al Dhafra	17	255
Total	90	1350

## **Sample Withdrawal**

The household sample was withdrawn in two stages:

- First Stage: The first stage involves the withdrawal of a primary sampling unit via the random sampling method, which is proportional to size. Thus, this increases the opportunity of enumerating areas with a relatively large number of families appearing in the sample, which increases the efficiency and quality.
- Second Stage: The households are withdrawn in the primary sampling unit that was selected in the first stage by the Systematic method of random sampling, which ensures the distribution of the sample of the selected households in the primary sampling unit.

As for the sample of Labour accommodation, it was withdrawn from within the layers in the frame according to the method of proportionate sample to size, where the number of workers residing in one camp expresses the size of that camp.

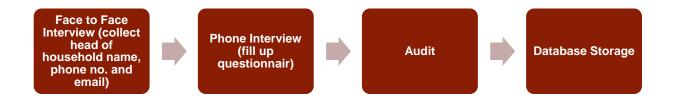
## **Sample Rotation**

To ensure consistency in the results of the surveys during the different quarters, a rotation process for a portion of the sample is required, in which the data for this portion is repeatedly completed and a new sample is drawn for the excluded portion.

The survey sample was divided into four replicates within the methodology of this survey so that 3 of them are quarterly rotated or revisited, which cover 75% of the sample; besides, a sample is withdrawn for a new replicate of 25%. This is done by the method of rotation between quarters throughout the year.

## **Data Collection Methodology**

The Labour Force Survey data is collected in two stages. The first stage involves collecting basic household data (type of household, name of head of household, phone number, e-mail) through a field visit and a family interview (face to face). In the second stage, the enumerator conducted the first phone interview with the head of the family or the responsible adult - who should not be a servant - to complete the cover page data, in addition to determining the preferred method for collecting the rest of the family's data, where families complete their data via phone interview or by sending an electronic link to the form on which the respondent fills in the data directly.



### **Data Collection Method**

Communication with the family specified in the sample, as well as data collection using a computer or tablet device, is accomplished using one of the following methods:

#### • Personal Interview (Face to Face):

The basic data shall be collected through a personal interview conducted by field visits to the sampling unit, and the questionnaire data shall be collected by the respondent using an iPad.

#### • Via Phone Interview:

The data is collected through a phone call to the sampling unit, and the respondent collects the questionnaire data. The application for the electronic form on iPads was designed according to the paper form used in the 2021 Labour Force Survey, which was developed internally by the SCAD technical support team. In addition, the application is tested to verify that it can complete the required tasks.

#### • Via Electronic Link:

Data is collected via the electronic link by sending the link to the electronic form to the family. Once the enumerator sends the link to the electronic form, the follow-up process begins, ensuring that the family receives the form via phone contact if necessary. The follow-up process continues periodically to remind and provide the required support from the beginning of the link opening until the completion of the form. After that, the enumerator reviews the form to ensure that all items are correct and communicates with the family if necessary. The form is then reviewed by the first enumerator, who refers it to the data auditor for final approval.

Verification procedures are implemented as soon as data is entered, which reduces the scope of postinterview audits and edits and reduces data processing time after collection.

#### Labour accommodation Data Collection

A flexible methodology has been developed to allow camp organizers to choose the most appropriate method of data collection, which includes the following methods:

- Individual interviews were conducted with randomly selected workers from each camp.
- Data collection from the company organizing the camp will conduct an interview with the representative of individual workers.

## **Classifications and Guides**

The following classifications were used in the survey:

- Economic Activity: International Standard Industrial Classification of All Economic Activities (ISIC 4)
- Occupation: International Standard Classification of Occupations (ISCO 2008)
- Specialization: Classifications of education, fields of education, and training according to (ISCED 2015)
- Nationality (Country Code)
- Statistical Surveys Implementation Guide- Statistics Centre of Abu Dhabi.
- Statistical Data Auditing Guide Statistics Centre of Abu Dhabi
- Statistical Sampling Guide- Statistics Centre- Abu Dhabi.

## **Data Editing**

Auditing Types

- Structure Audit: This can be used to verify coverage (all forms are present and not duplicated) and to show that each case has the correct number and type of records. Tests that constitute a structure modification ensure that the form is complete before beginning the consistency adjustment.
- Consistency and Validity Check: checking whether the expected relationships between responses are valid or known, as well as whether the answers are logical or permissible. These checks include consistency between age and marital status and between age and education, etc.
- Distribution: checking whether the data meets the expectations based on statistical analysis (audit and conformance rules from the output team).



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