

Integration of Labour Camps into the Household Income and Expenditure Survey

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Abstract:

Household Income and Expenditure Survey (HIES) generally aims to provide data about expenditure, income, housing, household, and population characteristics for the residents of Abu Dhabi Emirate who live in various types of households including the residents in labor camps, whom represent a high proportion of the population.

The importance of this paper is to highlight the methodology used to include the residents of labour camps in this type of surveys, especially regarding the sample design, questionnaires used, and the methodology of data collection. The international experience and recommendations dealing with this particular challenge is limited and did not provide SCAD with specific recommendations for treatment of labour camps.

As a result, SCAD designed a special sample to represent all categories of labour camps to ensure the data for this part of the population were included in the HIES. In addition, a special method was used for data collection during the fieldwork phase to collect their income and expenditure data.

Key words: *Abu Dhabi, Statistics Centre - Abu Dhabi (SCAD), Household, Household Income and Expenditure Survey (HIES), Labor camps.*

1. Introduction

1.1 Abu Dhabi

Abu Dhabi is the federal capital of the United Arab Emirates (UAE) and the largest of the seven emirates. Geographically, Abu Dhabi lies on the borders with the Kingdom of Saudi Arabia, the Sultanate of Oman, and the Arabian Gulf. Over the past 40 years, Abu Dhabi has experienced significant population growth and economic development.

To manage the growth and prosperity of the Emirate, the Government of Abu Dhabi required an official agency that could provide statistics for decision-making and policy setting.

1.2 Statistics Centre – Abu Dhabi

Statistics Centre – Abu Dhabi (SCAD) was established in accordance with Law #7 for the year 2008. SCAD is responsible for the collection, classification, storage, analysis and dissemination of official statistics covering social, demographic, economic, environmental and cultural indicators.

As a young statistical office, SCAD is in the fortunate position of being able to implement best practices from international bodies and leading National Statistical Organisations (NSOs). SCAD is aiming to be a world leader in innovative and efficient methods for data collection, analysis and dissemination.

2. Household Expenditure and Income Survey

Household Expenditure and Income Survey (HIES) is one of the key statistical surveys conducted by Statistics Center – Abu Dhabi (SCAD) as a part of its strategic plan. Household Expenditure and Income Survey became increasingly significant for its multi-purpose uses. It provides demographic, housing, expenditure, and income data about the society; which reflects several social and economic indicators. (HIES) scope covers Abu Dhabi Emirate usual residents who live in various types of households: private households (citizen or non-citizen), share households and labour camps. Accordingly, the sampling units in (HIES) divided into residential units in which private or share households are targeted and these units were included in the household statistical frame, whereas the labour camps were included within a special frame where the worker is considered the final sampling unit, which was selected for survey purposes. As the residents of labour camps are an integral part of the Emirate's residents, this survey must cover the data of this category.

The statistical unit in such surveys is household which made by persons, individually or in groups, for providing themselves with food and other essentials for living⁽¹⁾. A household may be either: (a) a one-person household, that is to say, a person who makes provision for his or her own food and other essentials for living without combining with any other person to form a multi-person household or (b) a multi-person household, that is to say, a group of two or more persons living together who make

common provision for food and other essentials for living⁽²⁾. The persons in the group may pool their resources and may have a common budget; they may be related or unrelated persons or constitute a combination of persons both related and unrelated.

Labor camps along with households constitute population concentrations areas in Abu Dhabi Emirate. Moreover, the number of usual residents in labor camps constitute a considerable percentage of the population. In Abu Dhabi Census 2011, workerslabor camps classified into two main categories: **the first** was labour camps, i.e. a unit of housing arrangements in which the employer, who has workers, is responsible for the management and supervision of the housing facilities and they must have at least 30 persons. labour camps includes the units classified as labour camps as well as workers residential cities and these units may occupy different building types. **The second** category is the “Other workers accommodation” which refers to small workers accommodations managed and supervised by the employer where less than 30 persons live. It also refers to farm workers accommodations where less than 30 persons live.

3. Sampling method ⁽³⁾:

A separate sampling frame of labor camps used for selecting this sample. A stratified two-stage sample design used for this population, with labor camps selected at the first sampling stage and workers selected at the sampling stage. The sampling frame of labor stratified by size in terms of the number of workers. The report proposes a sample of about 1,000 workers in labor camps, representing a sampling rate of about 0.2%, to complement the sample of households

The sample designed for the labour camp population based on a stratified two-stage sample design. In this case the Primary Sampling Units (PSUs) would be the individual labour camps, and a sample of workers selected in each sample labour camp at the second sampling stage. The sampling frame of labour camps for each region stratified by size in terms of the number of workers. For the 2011 Census enumeration a different classification was used for labour camps with 30 or more workers, and for camps with less than 30 workers. Within each stratum, the sample labour camps selected with Probability Proportional to Size (PPS) based on the number of workers.

In the case of the sample of labour camp population, we did not have previous survey data for estimating the sample size. However, based on a review of the distribution of the labour camp employees, it is expected that a total sample of about 1,000 labour camp workers (representing an overall sampling rate of about 0.2%) sufficient to complement the household expenditure and income data for each region, and to provide a sufficient level of precision for a separate analysis of the

characteristics of the labour camp population at the Emirate level. Given the extreme variation in the size of the labour camps (from 1 to 44,039 workers), the number of labour camps in the sample depend on the proportional distribution of the labour camps by size, but the target number of sample workers per camp will be 12 (or a multiple of 12 for the largest camps). In the case of the selected labour camps with less than 12 workers, all the workers included in the sample.

The sampling frame of labour camps first stratified by the three regions, and within each region the camps further stratified by size (number of workers). Initially the camps divided into three major size groups: large, medium and small. The cut-off between the medium and small is 30 workers; that is, the small stratum corresponded to camps with less than 30 workers. However, the cut-off between the large and medium size strata vary by region. The large stratum consist of the largest labour camps that included in the sample with certainty (that is, a probability of 1).

4. Survey design and Preparation

4.1 Target community

In the absence of international methodology dealing with workers labor camps in such surveys, and the exclusion of this type of housing and households in the other countries⁽⁵⁾, SCAD consider this type in his latest survey. In the context of the methodology of this survey, the target community is the usual resident population, the places of their residence in “labour Camps” or “Other Workers Quarters” as stated in the definitions used in Abu Dhabi Census 2011. labour camps vary in size; some have more than 10.000 workers while others have only 3 or 4 workers. It is also expected that the characteristics of workers living in the same camp vary in terms of nationality, occupation, age, etc. Due to this variance in the size of camps on the one hand and in the characteristics of their residents on the other hand, the count unit (i.e. the unit for which data is collected) is the camp resident worker.

4.2 Survey geographical coverage

The study of this population segment aims to provide economic and social databases upon which to compile indicators that are representative of the workers residing in Abu Dhabi Emirate. In order to cover all the segments of the society in the survey, the sample drawn from all three regions while the statistical representation significance level for the whole of the Emirate and not at region level.

4.3 Survey variables:

Most of the economic, social and demographic characteristics studied at resident households and individual levels also analysed when studying the community of workers residing in the labour camp. However, this done in a manner totally independent of that of the private households. Most of the

variables included in the private household questionnaire covered in the labour camps questionnaire, which includes:

Social variables:

- Worker's characteristics such as age, gender, marital status, nationality, etc.
- Current income sources and his/her ownership of different durables goods.
- Values of expenditure on goods.
- Income by sources.

5. Data collection and Editing

5.1 Survey Questionnaires:

Special household questionnaires designed to collect data about income, expenditure, and individuals, household and housing characteristics due to the relative difference in economic, social, expenditure trends and income sources.

Each person in the "labour Camps" constitutes an independent count unit having its own economic, social and demographic characteristics, as well as its consumer expenditure trends and income sources. In order to be aware of all these characteristics a special comprehensive questionnaire designed for each of the following:

- A person's demographic and social characteristics.
- Economic characteristics related to the ownership of some appliances and tools.
- Income sources: This part includes all the items of income sources that may apply to workers camp resident.
- Expenditure questionnaire: This part includes the items related to expenditure on expenditure sub-groups in the form of groups for which the total value of expenditure recorded without reference to amounts. Thus, it was an open questionnaire that does not include the names of food items; but only the names of sub-groups such as:
 - Cereals and their products.
 - Meat, fish, milk and eggs.
 - Vegetables and fruits
 - Legumes
 - Clothes
 - Shoes

- Actual paid or estimated rent value, and the details of the entity responsible for paying the rent or the percentage if pays.
- Health and treatment services, etc.

On the other hand, there were also some basic goods on which the workers spent so much that are worthy of study and analysis such as the value of readymade meals and spending on communications such as the prices of mobile phones and the prices of phone cards.

In-kind gifts purchased by the worker and sent to persons in Abu Dhabi Emirate or away recorded under a special section of the questionnaire that includes the total value of these gifts, which bought or sent or he/she intends to send in the coming period.

As the person did not live in a private house or housing unit and was not part of a private or share household, the data of the house or household not collected, and it was one of the objectives of this survey to study the house characteristics of this category.

5.2 Survey reference period:

In the frame of the private households, the methodology of this survey required that the data collection process cover all the months of the year in order to capture the seasonality of expenditure, as certain goods and consumer items are purchased in specific times, months or occasions in the year.

As for the workers in labour camps, there is no previous information or experience about the nature of the seasonal expenditure of this category of population. However, it is certain that its expenditure affected by different seasons and occasions like Ramadan and Eid. As for the monthly level, it is not thought that seasonality would be of significance.

Based on the above, the survey covered two rounds during two quarters of the survey year, i.e. 6 months, distributed as shown below:

First round: Covered the second quarter (Q2) in the period (January-March/2014)

Second round: Covered the fourth quarter (Q4) in the period (July-September/2014)

5.3 Periodicity of data collection:

Due to the special conditions of this population category with regard to working hours and to the concentration of the expenditure of this category on certain goods and services, the programme and periodicity of camp visit must be different from that of private households. Based on what stated above, the periodicity of the visits were as follows:

The total sample size was 936 persons distributed to clusters having 12 workers each totaling up to 78 clusters. These clusters are distributed over six month period to cover the two quarters with an average of 13 clusters per month.

The camp visited 3 times according to the following method:

The first visit: Introduced the survey, its importance and request an update of the details of the residents in the camp.

The second visit: Received the updated list and select the surveyed workers.

The third visit: Conducted the interview and collect the survey data, i.e. the survey questionnaire was filled only during the third visit.

5.4 Fieldwork programme:

Due to the limited previous experience of targeting persons residing in labour camps, the first month used as a pilot for the coming months. The work of the first month used to estimate the following:

- Average time needed to collect a person's data.
- Expected number of interviewers required to collect the data of one cluster of workers.
- Number of days needed to cover the monthly load of 13 clusters.

Based on the variables listed above, the future fieldwork planned for the remaining months.

5.5 Non-response:

Due to different circumstances, the sample units may show non-response or refusal either at the beginning of the survey, i.e. in the first visit, or during the different days of the month. In this respect, the following steps confirmed:

- Updated the persons' details related to names and nationalities of residents before the sample draw from any labour camp.
- Ensure that the camp still existing and that the persons selected in the sample usual residents of this camp during all the days of the coming month.
- For specific circumstances, if there was non-response by any member of the sample since the first visits due to absence, refusal or other reasons, an alternative member is selected from the updated workers' list having the most similar

6. Conclusion

In this paper we have discussed the methodology used by SCAD to integrated labor camps in Household Income and Expenditure Survey conducted by SCAD in 2014 by focusing on the following point:

1. There were many lessons learned from this survey, in addition to the following points, we have been identified for this category of population the economic variables of the extent of their contribution to the total households spending, and the structure of their expenditures and sources of income.
2. Defined the statistic unit for this type of population in this survey.
3. Sampling methods used to design the sample for this type of housing and households.
4. The methodology used in the field work to collect the data
5. The main assumption and adjustments used in the survey (periodicity of visits, Special household questionnaires.....)
6. How we deal with non-response or refusal cases.

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