



Palestinian Central Bureau of Statistics

Work Conditions Survey 1997

User's Guide

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Concepts and Definitions

This Chapter presents the main concepts and definitions used in the survey. These concepts are based on the international standards taking into account the Palestinian labour market's circumstances.

Household:

One person or a group of persons living together who make common provision for food or other essentials for living. Household members may be related, unrelated or combination of both.

Population of working age:

All persons in the West Bank and Gaza Strip aged 15 years and above.

Reference week:

The week ending on Friday preceding the interviewer's visit to the household.

Work:

Includes any activity for wage or salary, for profit or fees, or for payment in kind. One hour or more of such activity constitutes work. Work also includes unpaid activity on a family farm or business.

Employed:

All persons are 15 years and older who were working at a paid job or business for at least one hour during the reference week, or who did not work, but held a job or owned business from which they were temporarily absent (because of illness, vacation, temporarily stoppage, or any other reason) during the reference week. Employed persons are classified according to employment status as follows:

1. Employer:

A person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires one or more waged employees.

2. Own-account worker (self-employed):

A person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires no employees.

3. Wage Employee:

A person who works for a public or private employer and receives remuneration in wage, salary, commission, tips, piece-rates or pay in kind.

4. Unpaid family member:

A person who works without pay in an economic enterprise operated by a related person living in the same household.

Underemployment:

Underemployment exists when a person's employment is inadequate in relation to alternative employment, account being taken of his/her occupational skills. The underemployed persons are classified into two groups (Visible and Invisible underemployment).

Main job:

The job at which the person usually works the most hours in his/her main job. If a person usually works the same number of hours at two jobs, the “main” job is the job at which the person has been employed the longest.

Occupation:

Occupation refers to the kind of work done during the reference period by the person employed, or the kind of work done previously if unemployed, irrespective of the industry or the employment status of the person. Occupations are grouped together mainly on the basis of the similarity of skills required to fulfill the tasks and duties of the job. Occupations are classified according to the International Standard Classification of Occupation (ISCO 1988).

Industry:

Industry refers to the activity of the establishment in which an employed person worked during the reference period, or last worked if unemployed. This activity is defined in terms of the kind of goods produced or services supplied by the unit in which the person works. Industry activities are classified according to the unified commodity classification in the West Bank and Gaza Strip which is based on the International Standard Classification of All Economic Activities (ISIC Rev3).

Direct Head/ Supervisor/Manager:

The person who supervises, and give instructions to the employee during the performance of the work.

Health Insurance:

Indemnity coverage against financial losses associated with the occurrence or treatment of health problem.

Compensation of Work Injuries:

Compensation on loss material by coverage costs of accident of labour.

Get Along with Co-workers:

Friendship or correspondence in ideas and believes between employee and other co-workers.

Employment Insurance:

Set of instructions and laws which do not allow employer to fire the employee, according to his/her desires.

Material Incentives:

Set of allowances which pay to employee as money premium, substitute of overtime, prizes or any other promotions, as an outcome of distinguished performance.

Moral Incentives:

Set of allowances which pay to employee as gratitude or any other incentives, as an outcome of distinguished performance.

Bad Light:

Inadequate light such as working in mines or underground, or strong light which has an effect on employee’s eyes immediately or on the long run.

Protective Clothes:

Necessary clothes or tools, employee has to wear in order to protect him/herself from injury during the course of work.

Survey Questionnaire

The survey tool was designed taking into account the Palestinian conditions. The work conditions questionnaire was a supplement to the labour force survey questionnaire, which depends heavily on it, so it cannot be asked without the labour force survey questionnaire. At the sometime the work conditions survey questionnaire considered to be complementary to the labour force survey.

The questionnaire of work Conditions depends on three parts of the Labour Force questionnaire; one part for recording necessary elements for survey management and controls, one part for identifying the sample household, and the last part for recording the labour force characteristics for household members in the working age.

Target Population

The target population: consist of all Employed Persons aged 15 years and above, worked in the past, and living in the Palestinian Territories, excluding nomads and persons living in institutions such as prisons or shelters.

Sampling Frame

The sample in the survey is a tow-stage stratified cluster random sample.

Sample Deign:

Stratification:

Four levels of stratification have been made:

1. Stratification by District.
2. Stratification by place of residence which comprises:
(a) Municipalities (b) Villages (c) Refugee Camps
3. Stratification by locality size.
4. Stratification by cell identification in that order.

Sampling unit:

First stage sampling unit are the area units (Cells)in the master sample . The second stage sampling units are households.

Sample Size:

The sample size is about 4,622 households allowing for non-response and related losses. This amounts to a sample of 4,736 employed persons for the survey round.

Target cluster size:

The next important issue in sample design is the target cluster size or “sample-take,” the number of households to be selected per PSU on the average. In this survey about 4,736 employed persons had been selected from 258 master sample areas. Therefore, the sample take is around 18 households.

Self-Weighting Design

At the first stage, clusters or “cells” have been selected with (PPES) probability proportional to estimated measure of size (M_i) for unit (i):

$$f1_i = \frac{aM_i}{\sum M_i}$$

Where the summation is over all clusters in the population, a-258 is the total number of selected clusters. It is highly desirable for the Work Conditions survey to have a constant overall sampling rate (f), i.e. to have a self- weighting sample. This requires the second stage probability for the selection of households and persons within any sample cluster i to be as follows:

$$f2_i = \frac{f}{f1_i} = f \frac{(\sum M_i)}{a} \frac{1}{M_i} = \frac{(b)}{M_i}$$

Where b is a constant (independent of i) to be determined so as to obtain the required sample size ($n = 4,622$ households). Since the measures of size M_i are likely to differ from the actual number L_i of households listed in any cluster i , the actual number of households which shall be selected with the above $f2_i$ shall vary from one cluster to another and are given by:

$$b_i = f2_i * L_i = \frac{(L_i)}{M_i} * b$$

Summing over all clusters in the sample gives the required constant b to achieve the target sample size n as:

$$b = \frac{n}{\sum_a (L_i / M_i)}$$

Hence to control the overall sample size, b is determined after completing the listing in all sample areas.

The a above procedure allows for variation in sample sizes b_i at the level of individual clusters, so as to provide a self-weighting sample. Households within each sample cluster shall be selected systematically from the lists prepared for that purpose, using the sampling interval,

$$I_i = \frac{1}{f2_i} = \frac{(L_i)}{b_i} = \frac{(M_i)}{b}$$

Where:

1. a Number of cells in the sample (equals 258)
2. M_i Number of housing units in cell i
3. L_i Number of listed of households in cell i
4. n Proposed sample size (n=4,622 HHs)
5. b Average sample take
6. b_i Sample take in cell i
7. f Sample rate
8. $f1_i$ First-stage sampling rate
9. $f2_i$ Second-stage sampling rate

Which is fixed for each cluster but varies between clusters depending on the measure of size (M_i) with which the area was selected at the first stage.

The sample-take bi must be allowed to vary depending on the actual number of households Li found after listing. However, provision must be made to avoid extreme variation in cluster sample size. This could be done by using the above procedure to compute the ratio (b_i / b) for each cluster in the sample. If this ratio lies outside the range say 0.5 - 4.0, adjust bi , *i.e.* the interval L_i to be applied for the selection of households in the cluster, so as to keep the ratio within the above range.

Calculation of Variances

It is very important to calculate standard errors for the main survey estimates so that the user can have an idea of their reliability or precision.

The variance calculation will use the method of ultimate clusters. Within any domain of estimation, for a sub-population A , and for a characteristic Y , the formulas are:

(a) The variance of an estimator of a total is estimated by:

$$(3) \quad V\left(\hat{Y}_A\right) = \sum_h \left[\frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{Y}_{Ahi} - \frac{\hat{Y}_{Ah}}{n_h} \right)^2 \right]$$

Where:

$$(4) \quad \hat{Y}_{Ahi} = \sum_{j \in A} W_{hij} Y_{hij}$$

and:

$$(5) \quad \hat{Y}_{Ah} = \sum_i \sum_{j \in A} W_{hij} Y_{hij}$$

The expression in (3) is an unbiased estimator of the Variance.

(b) The variance of an estimator of a ratio is estimated by:

$$(6) \quad V\left(\hat{R}_A\right) = \frac{1}{\hat{X}_A^2} \left[V\left(\hat{Y}_A\right) + \hat{R}_A^2 V\left(\hat{X}_A\right) - 2 \hat{R}_A COV\left(\hat{X}_A, \hat{Y}_A\right) \right]$$

Where:

$$COV\left(\hat{X}_A, \hat{Y}_A\right) = \sum_h \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{X}_{Ahi} - \frac{\hat{X}_{Ah}}{n_h} \right) \left(\hat{Y}_{Ahi} - \frac{\hat{Y}_{Ah}}{n_h} \right)$$

$\hat{V}(\hat{Y}_A)$ and $\hat{V}(\hat{X}_A)$ are calculated according to formula (3);

\hat{X}_A

\hat{X}_A is calculated according to formula (1)_B and \hat{R}_A according to formula (2).

Means and proportions are special types of ratios. In the case of the mean, the variable X , in the denominator of the ratio, is defined to equal 1 for each element so that denominator is the sum of the weights in the sub-population.

In the case of the proportion, the variable X in the denominator is also defined to equal 1 for all elements. But, in addition, the variable Y in the numerator is binomial and is defined to equal either 0 or 1, depending on the absence or presence, respectively, of a specified attribute in the element observed.

Reference Week

The week ending on Friday preceding the interviewer's visit to the household. The survey covers 17/5-3/7/1997.

Data Collection

Stage of Field Work:

Field operations started on 24/5/1997 and lasted until 10/7/1997. Field work teams were distributed among all districts on the basis of sample size in each district. The number of work conditions survey' field work members amounted to 23 including the field work coordinator, 4 supervisors, 4 editors and 14 interviewers including coders.

Pilot Survey:

The sample of the pilot survey was 100 households in Ramallah, these households were distributed by social class. Training was conducted for 4 trainees who previously worked in the labour force survey. The field work continued for 3 days, the questionnaires were collected, coded, and entered, then tabulated in order to test the data. The questionnaire and the survey tools were modified according to the pilot survey results.

Training and Recruitment:

The purpose of training courses is to provide participants with the main skills needed to conduct interviews. Two training courses were held, one in Ramallah for West Bank trainees, and one in Gaza City for Gaza Strip trainees. Each course was on the specifications of the Work Conditions survey, including concepts and definitions, field work procedures, data collection, editing, coding, asking questions and recording answers, as well as field team organization and field supervision.

Training courses included lectures, exercises, as well as field training. Each course consisted of 24 training hours.

Field work:

The preparation phase for Work Conditions Survey included recruiting and training of interviewers and supervisors. The staff worked in this project have participated in previous survey projects at PCBS, and are therefore highly qualified.

Mechanism of Field Work:

The Palestinian Territories were divided into four regions (North of the West Bank, Middle of the West Bank, South of the West Bank, and Gaza Strip), each of which was supervised by one field supervisor. Each region consists of a number of districts. Field work activities in each region were carried out by one field work team consisted of 4-6 interviewers and one editor .

Mechanism of Supervision:

Certain procedures were followed for quality control and efficient organization of the field work. Such procedures pertain for supervising work as well as receiving and delivering questionnaires, maps, sample lists in addition to other forms used for management and quality control.

Response Rate

Conclusion	(absolute values)
Complete	6,952
Unexisted Unit	21
No One at Home	320
Refused	43
Inhabited unit	226
No useful information	8
Others	70
Total	7,640

Data Quality

The definition of data quality includes several parts , starting from first planning and ending in dissemination. There are three components of data quality: propriety, reliability, and availability of data.

Propriety explicit on population, variables, and reference period, etc. Which executing in this report. This chapter discuss the reliability of data , this component imply sampling design, measurement's procedure, data processing, in addition to the frame of measure an unresponsive.

May be there are some errors, especially in the field work, the sources of this errors are:

- Errors due to non-response because households were away from home or refused to participate. The overall non response rate amounted to almost (9.0%), which is relatively low; a much higher rate is rather common in an international perspective. It is difficult however to assess the amount of bias resulting from non response.
- Response errors which result from misunderstanding of the questions, interviewers' bias in asking the questions and in probing. Thorough training, supervision, and various quality control checks were used to minimize bias resulting from these kinds of errors.