Palestinian National Authority
Palestinian Central Bureau of Statistics

Labor Force Survey
2010

User's Guide

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Concepts and Definitions

Household:
One person or a group of persons living together who make common provision for food or other essentials for living. Household's 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 over.

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

Labour Force:
The economically active population (Labour Force) consists of all persons 15 years and over who are either employed or unemployed as defined above at the time of survey.

Employed:
Persons aged 15 years and over who were at work at least one hour during the reference week, or who were not at work during the reference week, but held a job or owned business from which they were temporarily absent (because of illness, vacation, temporarily stoppage, or any other reason). 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 wage employees.

2. **(Self-employed) own-account worker:**
   A person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires no employees.

3. **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.

Unemployed (According to the ILO Standards):
Unemployed persons are those individuals 15 years and over who did not work at all during the reference week, who were not absent from a job and were available for work and actively seeking a job during the reference week. Persons who work in Israel and were absent from work due to closure are considered unemployed, and also those persons never work and not looking for work but waiting to return to their works in Israel and settlements.

Unemployed (According to the Relaxed Definition):
The Number Of Unemployed Persons was calculated under the definition by adding to unemployed Persons according to the ILO Standards, those Persons outside labour force because they were frustrated.

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:

1. **Visible Underemployment:**
   Visible underemployment refers to insufficient volume of employment:
   persons worked less than 35 hours during the reference week or worked less than the normal hours of work in their occupation were considered as visibly underemployed.

2. **Invisible Underemployment:**
   Invisible underemployment refers to a misapplication of labour resources or fundamental imbalance as between labour and other factors of production, such as insufficient income, underutilization, or bad conditions of the current work, or other economic reasons. In this survey, employed persons are classified as invisibly underemployed if they are not already classified as visibly underemployed; and want to change their jobs because of an insufficiency of income, or because they are working in an occupation which does not correspond to their qualification.

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 employed person, or the kind of work done previously if unemployed, irrespective of the economic activity 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).

Main Economic Activity:
Is the main work of the enterprise based on the (ISIC Rev3) and that contribute by the large proportion of the value added whenever more than one activity exist in the enterprise.

Absent from Usual Work:
All those who were absent from their usual work during the reference week, due to illness, holiday, strike, curfew, lock-out, temporary work stoppage, or due to some other reasons.

Seeking Work:
Seeking work is defined as having taken specific steps in the reference week to find paid employment or self-employment. Job seekers are classified into:

1. Available for work: A person ready to work if he\she is offered any job, and there is no reason preventing him\her from accepting such a job although he\she did nothing to get a job.
2. Actively seeking work: A person who is willing to work and is actively seeking work through reading newspaper advertisement, asking friends, registration at the labour exchange offices, or asking employers.

Persons Outside Labour Force:
The population not economically active comprises all persons 15 years and over, who were neither employed nor unemployed accordingly to the definitions above.

Retirement\ Revenues:
The person who hasn't worked and doesn't want to work due to having a constant revenues or retired remittances.

Years of Schooling:
The number of regular years of study completed successfully. Repetition years and irregular study or courses are not taken into account.

Hours Worked:
Total number of hours actually worked during the reference period as well as overtime and time spent at the place of work on activities such as preparation of the workplace. Leaves, meal breaks and time spent on travel from home to work and vice versa are excluded from work hours.

Monthly Work Days:
Number of days at work during the month, excluding week-ends, holidays, sick and other paid or unpaid leaves. One hour of work in a given day is considered as one work-day.

Daily Wage:
Cash net wage paid to the wage employee from the employer. Wages received in different currencies are converted into New Israeli Shekels according to the exchange rate in the survey period

Questionnaire Design:

One of the main survey tools is the questionnaire, the survey questionnaire was designed according to the International Labour Organization (ILO) recommendations. The questionnaire includes four main parts:

1. Identification Data:
The main objective for this part is to record the necessary information to identify the household, such as, cluster code, sector, type of locality, cell, housing number and the cell code.

2. Quality Control:
This part involves groups of controlling standards to monitor the field and office operation, to keep in order the sequence of questionnaire stages (data collection, field and office coding, data entry, editing after entry and store the data.

3. Household Roster:
This part involves demographic characteristics about the household, like number of persons in the household, date of birth, sex, educational level…etc.

4. Employment Part:
This part involves the major research indicators, where one questionnaire had been answered by every 15 years and over household member, to be able to explore their labour force status and recognize their major characteristics toward employment status, economic activity, occupation, place of work, and other employment indicators.

Merge of Annual Data Files:
In order to create an annual data file for each year, the data files for the quarters of the same year were merged in one file. The weights for the annual data file were calculated for each quarter separately, and the weights for the whole year were calculated as one unit.

Sampling Frame

The methodology was designed according to the context of the survey, international standards, data processing requirements and comparability of outputs with other related surveys.

Sampling Frame and Target Population:

Target Population:
All Palestinians aged 10 years and over living in the Palestinian Territory, excluding persons living in institutions such as prisons or shelters.

Sampling Frame:
The sampling frame consisted of a master sample of enumeration areas (EAs) selected from the population housing and establishment census 2007, the master sample consists of area units of relatively equal size (number of households) , these units have been used as primary sampling units (PSUs).

Sample Design:
The sample is a two-stage stratified cluster random sample.

Stratification:
Four levels of stratification were made:
1. Stratification by Governorates.

2. Stratification by type of locality which comprises:
   (a) Urban   (b) Rural   (c) Refugee Camps
3. Stratification by classifying localities, excluding governorate centers, into three strata based on the ownership of households of durable goods within these localities.
4. Stratification by size of locality (number of households).

The sample size was about 7,770 households in the 56th round and 7,818 households in the 57th round, and 7,819 households in the 58th round and 7,772 households in the 59th round. The total number of the households was about 31,179 households. The number of completed questionnaires was about 27,514 questionnaires and this was considered appropriate to provide estimations on main labour force characteristics in the Palestinian Territory.

The sample size in 1st quarter, 2010 consisted of 7,770 households, which included 29,999 persons aged 10 years and over (including 24,395 aged 15 years and over). In the 2nd quarter, the sample consisted of 7,818 households, which included 29,483 persons aged 10 years and over (including 24,118 aged 15 years and over). In the 3rd quarter, the sample consisted of 7,819 households, which included 28,479 persons aged 10 years and over (including 23,260 aged 15 years and over). In the 4th quarter the sample consisted of 7,772 households; which included 28,478 persons aged 10 years and over (including 23,288 aged 15 years and over).

Sample Rotation:
Each round of the Labor Force Survey covers all the 481 master sample areas. Basically, the areas remain fixed over time, but households in 50% of the EAs are replaced each round. The same household remains in the sample over 2 consecutive rounds, rests for the next two rounds and represented again in the sample for another and last two consecutive rounds before it is dropped from the sample. A 50 % overlap is then achieved between both consecutive rounds and between consecutive years (making the sample efficient for monitoring purposes).

In earlier applications of the LFS (rounds 1 to 11); the rotation pattern used was different; requiring a household to remain in the sample for six consecutive rounds, then dropped. The objective of such a pattern was to increase the overlap between consecutive rounds. The new rotation pattern was introduced to reduce the burden on the households resulting from visiting the same household for six consecutive times.

Estimations Procedure:

To estimate a given total Y for a given sub-population A, we introduce the following formula:

(1) $$\hat{Y} = \frac{y}{x} X$$

Where $\frac{y}{x}$ is a ratio estimated from the sample and X is the total number of elements in the population related to the variable x in the denominator, usually X is taken from a recent census or from recent population projections.

The estimator for a given ratio for sub-population A is the following:

(2) $$\hat{R}_A = \frac{\hat{Y}_A}{\hat{X}_A}$$

Where:

$\hat{R}_A$ = The estimate for the ratio of two variables, Y/X, in sub-population A.

$\hat{X}_A$ = The estimated total for variable X in sub-population A, given by formula (1)

$\hat{Y}_A$ = The estimated total for variable Y in sub-population A, also given by formula (1)

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 the denominator is the sum of the weights in the sub-population.

In the case of proportions, 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.

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

Where:

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

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and:

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

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

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

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

Where:

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

And:

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

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

Data Collection

Training and Recruitment:
The purpose of the training courses was to teach participants the main skills needed to conduct interviews. Two training courses were held, one in Ramallah for the West Bank trainees, and one in Gaza City for Gaza Strip trainees. Each course consisted of two parts: one on survey methodology including survey design, questionnaire design, interviewing techniques, and field operations; and one part on specifications of the labour force survey, including concepts and definitions, fieldwork procedures, data collection, editing, coding, tips for asking questions and recording answers, as well as field team organization and field supervision.

Fieldwork:
The preparation phase for the LFS included recruiting and training of interviewers and supervisors. The staff on this project participated in previous survey projects at PCBS, and are highly qualified.

The West Bank was divided into three areas (North, Middle and South), each of which was supervised by one field supervisor. Each region consists of a number of governorates, and the fieldwork was carried out by one fieldwork team, consisting of 2-3 interviewers.

Gaza Strip was also divided into three areas (North, Middle and South). Fieldwork activities were carried out by one fieldwork team, each consisting of a supervisor, an editor and 3 interviewers.

Special procedures were followed in order to ensure quality control and efficient organization of fieldwork. Such procedures are important for supervising work, as well as for receiving and delivering questionnaires, maps, sample lists in addition to other forms used for management and quality control.

Field operations were conducted in the Palestinian Territory from 01/01/2010 to 31/12/2010. Fieldwork teams were distributed to each area on the basis of the sample size. The number of LFS' fieldwork team was 26, including the fieldwork coordinator, 4 supervisors, 4 editors, and 18 interviewers including coders.

Response Rate:

Respons Rate (absolute values) of Rounds
(Q1-Q4/2009)

Conclusion	Round 52 (July – March, 2009)	Round 53 (April-June, 2009)	Round 54 (July-September, 2009)	Round 55 (October-December, 2009)
Complete	6,942	7,005	6,812	6,755
Travelled household	57	62	95	74
Unexisted Unit	42	45	49	44
No One at Home	263	228	292	335
Refused	78	89	96	79
Inhabited unit	302	297	342	341
No useful information	29	47	68	54
Others	57	45	65	90
Total	**7,770**	7,818	**7,819**	**7,772**

Reference Date:
The week ending on Friday perceding the interviewer's visit to the household. The rounds consist of four quarters, the first quarter covered the period (January – March, 2010), and second quarter (April-June, 2010) and third quarter (July-September, 2010) and fourth quarter (October-December, 2010).

Data Quality

Accuracy of the Data:

5.1.1 Statistical Errors:
Since the data reported here are based on a sample survey and not on a complete enumeration, they are subjected to sampling errors as well as non-sampling errors.

Sampling errors are random outcomes of the sample design, and are, therefore, in principle measurable by the statistical concept of standard error. A description of the estimated standard errors and the effects of the sample design on sampling errors are provided in the previous chapter.

Data of this survey affected by statistical errors due to use the sample, Therefore, the emergence of certain differences from the real values expect obtained through censuses. It had been calculated variation of the most important indicators exists and the facility with the report. and the dissemination levels of the data were particularized at the regional level in Governorate in the West Bank and Gaza Strip.

Non-Statistical Errors:
Non-statistical errors are probable in all stages of the project, during data collection or processing. This is referred to as non-response errors, response errors, interviewing errors, and data entry errors. To avoid errors and reduce their effects, great efforts were made to train the fieldworkers intensively. They were trained on how to carry out the interview, what to discuss and what to avoid, carrying out a pilot survey, as well as practical and theoretical training during the training course.

Also data entry staff were trained on the data entry program that was examined before starting the data entry process. To stay in contact with progress of fieldwork activities and to limit obstacles, there was continuous contact with the fieldwork team through regular visits to the field and regular meetings with them during the different field visits. Problems faced by fieldworkers were discussed to clarify any issues.

Non-sampling errors can occur at the various stages of survey implementation whether in data collection or in data processing. They are generally difficult to be evaluated statistically. They cover a wide range of errors, including errors resulting from non-response, sampling frame coverage, coding and classification, data processing, and survey response (both respondent and interviewer-related). The use of effective training and supervision and the careful design of questions have direct bearing on limiting the magnitude of non-sampling errors, and hence enhancing the quality of the resulting data. The following are possible sources of non-sampling errors:

Response and Non Response Rates:
Errors due to non-response because households were away from home or refused to participate. The overall non response rate amounted to almost 11.8% which is relatively low; a much higher rates is rather common in an international perspective. The refusal rate was only 1.1% and the coverage rate was only 4.7%. It is difficult; however, to assess the amount of bias resulting from non response. PCBS has not yet undertaken any non-response study. Such a study may indicate, that non-response is more frequent in some population groups than

in others. This is rather normal and such information is necessary to be able to compensate for bias resulting from non-response errors.

Possibility of comparison:
In this section, comparison will be made for a time series period and for sectors only, since there is no other sources for comparison. Results indicated that the rate of labor force participation in 2010 did not have a large change compared with in the rate in 2009. But this rate is obviously different between West Bank and Gaza Strip where the rate was 43.7% and 36.4% respectively.

Results also indicated that the unemployment rate was 24.5% in 2009 in the Palestinian Territory, compared with 23.7% in 2010. Again the difference between West Bank and Gaza Strip is very large while it is 17.2% in West Bank it reached to 37.8% in Gaza strip.

For sex, unemployment rate was 24.1% in 2009 compared with 23.1% in 2010 for males. But, it was 26.4% in 2009 for females compared with 26.8% in 2010.

Technical Notes:
- There are important technical notes which should be taken into consideration when reviewing this report, which are as follows:
- The numbers for the Years 2000-2010 are estimates based on the preliminary results of the Population, Housing and Establishment census, 2007
- About the nominal daily wages, exchange rates are used according to time period at which data was published.
- The questionnaire of this survey was developed in away that permit to make comparison with labour force survey that are conduct by the Israeli Central Statistical office. Additionally, PCBS continuously seeks improvement on the questionnaire to suite international standards and Palestinian labour market.

Derived Variables

In compliance with the International Labor Organization Recommendation, the persons aged 15 years and over classified into two groups:
1. In Labor Force
2. Outside Labor Force

The persons in Labor Force are classified into three groups:
1. Full employment
2. Underemployment (Visible, Invisible)
3. Unemployment

The derived variables as Follows

Variable name	Value Label	Description
EMPCH	1. Full Employment 2. Unemployment 3. Out Labor Force	Labor Force Status (1)
INOUTLF	1. In labor Force 2. Out Labor Force	Labor Force Status (2)
EMPCHU	1. Full Employment 2. Unemployment 3. Out Labor Force 4. Visible Underemployment 5. Invisible Underemployment	Labor Force Status (3)
EMPCHFIN	1. Full Employment 2. Underemployment 3. Unemployment 4. Out Labor Force	Labor Force Status (4)
EMPSTATS	1. Employer (employs others) 2. On own account 3. Employee 4. Unpaid family member	
WBGS	1. West Bank 2. Gaza Strip	Region
REASON	1. Old/ ill 2. Home duties 3. Studying 4. Other	Reason
MARITALS	1. Never Married 2. Married 3. Other	Marital Status
PWORK	1. West Bank 2. Gaza Strip 3. Israel and Settlements 4. Other	Place of Work

Variable name	Value Label	Description
EMPSTATS	1. Employer (Employs other) 2. On own account 3. Employee 4. Unpaid Family member	Employment Status
INDUSTRY	1. Agriculture 2. Manufacturing 3. Construction 4. Commerce, Hotels and Restaurants 5. Transport, Storage and Communication 6. Services	Industry
OCCUPATI	1. Legislators, Senior Officials and Managers 2. Professionals, Technical, Associate and Clerks 3. Service, Shop and Market Workers 4. Skilled Agricultural &Fishery Workers 5. Craft and Related Trade Workers 6. Plant and Machine Operators and Assemblers 7. Elementary Occupations	Occupation