



**Palestinian National Authority  
Palestinian Central Bureau of Statistics**

**Household Survey on Information and  
Communications Technology, 2006**

**User Guide**

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## Definitions and Explanations

<b>Asymmetric Subscriber line (ADSL):</b>	A form of DSL, a data communications technology that enables faster data transmission over copper telephone lines than a conventional modem can provide.
<b>Bluetooth Technique:</b>	An industrial specification for wireless personal area networks, Bluetooth provides a way to connect and exchange information between devices like personal digital assistants, mobile phones, laptops, PCs, printers and digital cameras via a secure, globally unlicensed short range radio frequency.
<b>Computer Use:</b>	It is defined for this survey purposes as the basic uses of the computer (during the last twelve months) like: opening the computer and files as well, create, copy, paste, and saving files.
<b>Digital Subscriber Line DSL):</b>	It is an Internet connection via MODEM and dial-up software utilizing the Public Switch Telecommunications Network (PSTN).
<b>E mail:</b>	It is a mean for exchange messages, texts and attached files among internet or intranet users.
<b>E- Commerce:</b>	It is the conducting of business communication and transactions over computer networks and through individual computers linked to the Word Wide Web. Strictly defined, e-commerce is the buying and selling of goods and services, and the transfer of funds, through digital communications.
<b>Household Membership:</b>	Persons staying in the dwelling unit at the time of an interview are considered members of the household if (1) the dwelling unit is their usual or only place of residence or (2) a place of residence is maintained for them here and elsewhere, but they spend most of their time in this residence.
<b>Household:</b>	One person or a group of persons with or without a family relationship who live in the same dwelling unit, share meals and make joint provisions for food and other essentials of living.
<b>Information Technology and Communications (ICT):</b>	It is used to describe the tools and the process to access, retrieve, store, organize manipulate, produce present and exchange information by electronic and other manual automated means.

<b>Internet:</b>	A world-wide public computer network. Organizations and persons can connect their computers to this network and exchange information across a country and/or across the world. The Internet provides access to a number of communication services including the World Wide Web and carries email, news, entertainment and data files.
<b>Internet Use:</b>	It is defined for this survey purposes as the basic uses of the Internet (during the last twelve months) like: access to certain sites, reading newsletters, and download files or programs from the web.
<b>Integrated Services Digital Network (ISDN):</b>	A digital access technique for both voice and data. Digital alternative to an analog public switched telephone service and carries data or voltages consisting of discrete steps or levels, as opposed to continuously variable analog data. ISDN enables digital transmission over the PSTN.
<b>Main Telephone Lines</b>	It is a telephone line connecting the subscriber's terminal equipment to the public switched network and which has dedicated port in the telephone exchange equipment.
<b>Modulator\Demodulator (MODEM):</b>	A hardware device that enables a computer to transmit and receive information over telephone lines. The modem is responsible for converting the digital data used by your computer into an analog signal used on phone lines and then converting it back once received on the other end.
<b>Mobile Phone:</b>	The mobile phone that belongs to any telecommunication company.
<b>Self Propelled Automatic Mail:</b>	It is unsolicited electronic messaging, regardless of its content.
<b>Wireless:</b>	Includes fixed wireless, mobile wireless and satellite Internet connections

## The Survey Questionnaire

The Questionnaire for the Information and Communications Households Survey, 2006, consists of three parts:

**The First Part:** It is composed of the following:-

First Section: It is composed of identification data, quality control criteria, households members data that include data on demographic, social and economic characteristics such as: age, sex, refugee status, education and main profession.

Second Section: Data on characteristics of housing.

**The Second Part:** household Questionnaire:

It is composed of questions about computer possessing, access to the Internet, having telecommunication means, households expenses on (ICT) available services, and use of recreation devices.

**The Third Part:** Questionnaire of Persons aged (10 years and over):

Use of Computer, access to the Internet, having Mobil Phone, expenses on (ICT) Services available, Self-Propelled Automatic Messages (SPAM).

## Data Set Linkage

The data set for users consists of three primary files that are related by identification variables (keys). A description of the files is below.

File Name	Content	Identification Variable
Roster. dat	Households and members Data	ID00: questionnaire serial number HR01: person serial number
Family. dat	Family Data	ID00: questionnaire serial number HR01: person serial number
Persons. dat	Person Data	ID00: questionnaire serial number HR01: person serial number

## Target Population

The target population consists of all Palestinian households that usually reside in the Palestine. As for individual data, the target population is the persons aged 10 years and over in the as in the reference date.

## Sample size and Design Frame

The sample size is 4,609 households of which 3,109 households in the West Bank and 1,500 households in Gaza Strip.

The sampling frame is the list of enumeration areas peculiar to the 1997 Population, Housing and Establishment Census. Enumeration areas are residential areas containing about 150 housing units in average.

The sample strata have been designed on two levels:

- 1) First level: the governorate (16 governorates).
- 2) Second level: type of locality (urban, rural and camps).

## **Weighing**

Weights have been calculated for each sampling unit. Weight reflects the sampling procedures. To make the weighing procedure feasible and simple, we assumed that the households have been selected directly within the EA.

Adjusted weights are important to reduce bias resulting from non-responses. Also “adjusting” has given consideration to demographic changes since the time of the Population, Housing and Establishments Census, 1997 and the time of carrying out the survey.

Furthermore, when adjusting weights and estimation of the size of population in Palestine and their distribution according to age groups in the midst of the second quarter, 2006. Therefore, the results, changes and ratios of this survey represent the reality in Palestine during that period.

## **Variance Calculation**

It is necessary to compute standard errors of the principal survey estimations, so that a user can identify the accuracy of estimations and the survey reliability. Total error of the survey can be divided into two kinds: statistical errors; and, non-statistical errors. Non-statistical errors are related to the procedures of statistical work at different stages such as the failure to explain questions in the questionnaire, unwillingness or inability to provide correct responses, bad statistical coverage, etc. These errors depend on the nature of the work, training, supervision, efficiency of design, and conducting with all the various related activities.

The working team in the spared no effort at the different stages, to minimize non-statistical errors; however, it is difficult to estimate numerically such errors due to absence of technical computation methods based on theoretical principles to tackle them.

On the other hand, statistical errors can be measured. Frequently they are measured by the stranded error, which is the positive square root of the variance. The variance of this survey has been computed by using the “programming package” CENVAR whereby the method of Ultimate Cluster is used to calculate variance.

## **Data Collection**

### **Instructions and Training manual**

The training manual covered all aspects dealing with fieldwork and filling in questionnaires. Moreover, it dealt with the tasks of each fieldworker, interviewing, and questionnaires’ completion. More training manuals for supervisors and editors were prepared in order to secure team training and success of project. A training course was held in Ramallah and in Gaza city on April 22<sup>nd</sup>, 2006, and was completed on April 26<sup>th</sup>, 2006 with the participation of 74 trainees. Training lasted for 5 days for fieldworkers and additional one day for supervisors, editors, and assistants.

The training of trainees was divided into two parts: **The first part** discussed general issues such as designing statistical surveys, reaching selected households, interviewing, tasks and duties and running the fieldwork. **The second part**

emphasized the objectives of the Survey and allowed exercises on filling in questionnaires.

### **Data editing in the field**

The project's management developed a clear mechanism for editing the data and trained the team of editors accordingly. The mechanism was as follows:

- Receiving completed questionnaires on daily basis;
- Checking each questionnaire to make sure that they were completed and that the data covered all eligible individuals. Checks also focused on the accuracy of the answers to the questions.
- Returning the uncompleted questionnaires as well as those with errors to the field for completion.
- Re-interviewing 10% of the sample households using a special questionnaire for the supervisors to ensure the accuracy of the data when compared to the interviewers' completed questionnaires.

### **Following up and supervision**

Special follow-up patterns were designed for handing in and receiving questionnaires for all levels as well as the daily accomplishments of the interviewers. Supervisors had the task of allocating work to the teams using the map and the list. They provided daily and weekly reports to the fieldwork coordinator and the project's administration explaining the completed interviews, refusal cases, the inapplicable cases such as vacant housing units, interviews where results were not determined, and the cases that could not be communicated (after three contact attempts). The reports also included the technicians and coordinators' supervisory field visits.

### **Data Processing**

At this stage data entry programme has been prepared using ACCESS package. Data entry screens have been designed. Also, rules of entry have been put, in a manner that guarantees successful entry of questionnaires and verification instructions to check data after each entry. These instructions examine the variables on the questionnaire level.

After having designed the data entry programme and testing it to verify readiness; and, after having trained staff on dealing with data entry programme, data entry started on May 3<sup>rd</sup>, 2006 and finished in May 28<sup>th</sup>, 2006. The process of data entry was correlated with receipt of questionnaires from the field, whereby 15 staff members have been engaged in data entry and verification of questionnaires. Data entry has taken place during two shifts, morning and evening, to secure achievement of data entry on time.

Final tabulation of results was performed using the statistical package SPSS for Windows (version 12.0).

### **Reference period**

The reference date for the survey was 20/04/2006 for calculation of age.

## Response Rates

### Households and Eligible persons (10 years and over) and their Response Rate by Region, 2006

Sample and Response Rate	Region		
	Palestine	West Bank	Gaza Strip
Households	4,609	3,109	1,500
Households Interviewed	3,975	2,614	1,361
Response Rate of Households	86.2	84.1	90.7
Males Interviewed (10 years and over)	1,925	1,237	687
Females Interviewed (10 years and over)	1,886	1,211	675

### Data Quality

Since the data reported here are based on a sample survey and not on complete enumeration, they are subjected to two main types of errors: sampling errors and non-sampling errors.

Sampling errors are random outcomes of the sample design and are, therefore, easily measurable.

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

### Evaluation of Demographic and Social Data:

There are different methods to evaluate data varying according to subjects and they include:

1. Frequency of missing values and responses like "other" or "Do not know" and examining data inconsistency between the different sections like birth date and other sections.
2. Comparison of survey data with other external sources of countries similar in situation to the Palestine; and also, with results of surveys related that have been completed in Palestine like the Population, Housing and Establishments Census-1997 and other Surveys.

### Demographic Characteristics Related to Birth Date:

Eligible individual is identified according to birth date obtained from birth certificate, identity card or any other official document. There could be some errors in age of individuals with no such documents. Accuracy in identifying birth date is due to the fact that the survey focuses on specified age groups, as age is all-important in

shaping the individual's opinion. We have based our computation of age on the individual's birth date and date of interview 20/04/2006.

Errors on recording age result from age reporting while providing information; the lack of comprehending the question peculiar to age; and, error of data entry on age. Most important: the ignorance of actual age by the respondent. Errors of reporting age are common to all surveys and this survey is no exception. However; the level of errors committed and the risk encountered varies from one survey to another. It is worth noting that when questions relating to the whole number of years of age and birth dates have been posed, official documents have been used to obtain data for this survey.

### **Household's Expenditures on ICT**

Regarding to household's and person's expenditures on ICT available services, we proceed the missing cases (Do Not Know) in the set of variables related to ICT expenses based on the average expenditure values for each certain indicators and also the ICT expenses are specified to such ICT available services to households and Individuals.

### **Derived Variables**

<b>Variable name</b>	<b>Description</b>	<b>Values</b>
Region	Region	1. West Bank 2. Gaza Strip
loctype	Type of locality	1. Urban 2. Rural 3. Camps