Palestinian Central Bureau of Statistics

The Demographic Survey in the West Bank and Gaza Strip -1995

User's Guide

Note for Users

Geographic and Administrative Divisions: In 1995, Geographic and Administrative Divisions of the Palestinian Territory were as follows: Two geographic regions West Bank and Gaza Strip. The West Bank includes 8 Districts, and Gaza Strip includes 3 Districts.

While after the 1997 census, the divisions of the West Bank and Gaza Strip were changed, as follows: The West Bank was divided into 9 governorates and two districts, and Gaza Strip was divided into 5 governorates.

Introduction

Reliable and current population statistics are essential for policy programming and for social and economic planning at all levels. There has been no census in the West Bank (excluding Jerusalem) and Gaza Strip since 1967. As a result, existing demographic data on the Occupied Palestinian Territory (OPT) remain incomplete and imprecise.

To improve the situation, the PCBS has decided to undertake a fairly large demographic survey that was carried out from April 29, 1995 to July 23, 1995 by PCBS in collaboration with the Norwegian Institute for Applied Social Science (FAFO). The main purpose of this survey is to provide basic demographic estimates at both the national and district levels (review the geographical administrative division which was used at the time of implementing the survey), briding important gaps in existing statistics and reducing uncertainties surrounding the utility of available data. Specifically, the survey provides detailed data on the following topics:

1. Population structure
2. Female fertility
3. Fertility preference
4. Infant and child mortality, Maternal and adult mortality
5. Internal and international migration
6. Family and household composition
7. Educational characteristics
8. Housing conditions.

Definitions and Concepts

Age:	The completed age in years of the person enumerated, which is the difference between the date of birth and the survey reference period. The exact age is the time elapsed between the day of birth and a given day, including parts of a year.
Age at Marriage:	The age of the individual in years at the time of his/her actual marriage.
Birth History:	Reporting of the dates of all live births experienced by a woman up to the reference date of enumeration, here pre-set to 30 April 1995.
Birth Interval:	The time span calculated in months between the birth dates of two successive births for a woman.
De jure Population:	A population enumerated as the basis of usual residence, excluding temporary visitors and including residents temporarily absent. All persons who have been temporarily absent for up to 1 year are considered usual residents in this survey.

Dwelling Unit: A room or a number of rooms occupied or vacant and are used as a separate dwelling, provided that there is either:

(1) Direct entrance from the outside or through a hall, or

(2) Complete kitchen facilities used only by the unit's inhabitants regardless of whether they are used or not.

General (Government) School: Refers to schools, which are supported by the government.

Household Membership: Persons staying in the dwelling unit at the time of interview were 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.

Household: One person or group of persons with or without a family relationship who live in the same dwelling unit, who share meals and make joint provisions for food and other essentials of living.

Head of Household:	The person who usually lives with the household and is recognized as head of household's members. Often he/she is the main decision maker or responsible for financial support and welfare of the household at the time the survey was conducted.
Illiterate:	A person who cannot read or write a short abstract about his life and understand it is considered illiterate.
Live Birth:	A birth is considered live birth if the baby born has shouted, cried, or shown any signs of life at birth.
Living Children:	Infants born alive and are still alive until the time of the interview regardless of their age and of whether they are staying with their mother or not.
Mortality:	Deaths as a component of population change.
Marital Status:	The status of those 14 years old and over in terms of marriage traditions and laws in the country. It might be one of the following:

Single: The individual 14 years old and over who did not actually marry according to the existing norms and traditions

Married: The individual 14 years old and over who is actually married according to the existing norms regardless of whether he/she is living with a spouse at the time of the interview or not.

Widowed: The individual 14 years old and over who was married, but his/her marriage was revoked because of the death of the partner, and he/she did not marry again.

Divorced: The individual 14 years old and over who was married but his/her marriage was revoked by a legally registered divorce, and he/she did not marry again.

Separated: The individual 14 years old and over who was married, but his/her marriage was revoked for some reason without any legal or official registration, and he/she did not marry again.

Marriage Duration: The duration between the date of the actual marriage and the survey reference date, calculated in years.

Nuclear Family:	Refers to families consisting of married couples without children, married couples with unmarried children, or single parents with unmarried children.
Neonatal Death Rate:	The number of infant (1 month of age) death per 1,000 live birth in a given year.
Occupation:	Refers to the kind of work held by the employed persons, irrespective of their training or education. Thus, the occupation refers to the tasks carried out by a person. If the person had more than one occupation, the one in which he/she spends most of his/her time was considerd his/her occupation.
Private school:	Refers to schools, which are not run by any governmental ministry or the UNRWA.
Primary Sampling Unit:	Using a multi-stage sample design, primary units must be selected in the first stage; these are usually geographical units or localities. In this survey primary units are localities.
Place of Residence:	Place of residence was divided into cities, villages, and refugee camps. All localities with municipalities are considered cities.

Place of Birth: The mother's usual place of residence at the time of her child's birth.

Reference Date: The date referred to in calculating the vital rates and ages. In this survey, it is 30/4/1995.

Room: The dwelling unit or part of it surrounded with walls and has a ceiling provided that its area is not less than 4 square meters. The balconies surrounded with glass are considered rooms; while kitchens, bathrooms, other balconies, corridors, halls, and half rooms are not considered rooms. Also, rooms used for work purposes such as a doctor's room or a sewing room are not considered rooms in this survey.

School: Refers to any educational institution, basic or schools, intermediate community colleges, universities or an institution licensed by official authorities to offer regular education after. Kindergartens are not considered schools.

Survey Questionnaire

The Demographic Survey questionnaire consists of seven main parts:

- **Control Sheet**:

Which includes items related to quality control, sample identification, interview schedule and interview results.

- **Household Roster:**

Which includes questions related to the demographic and socio-economic characteristics of persons.

- **Household Mortality Schedule:**

Which includes questions related to deaths in the household during the past 24 months.

- **Housing Schedule:**

Which includes questions on housing and housing conditions.

- **Relatives Abroad Schedule:**

Which includes questions on the number and the demographic characteristics of close relatives residing abroad.

- **Women's Schedule:**

Which includes questions mainly related to ever married women age 14-54 years.

- **Birth History:**

Which includes questions related to the characteristics of all births occurring to ever married women eligible for interview.

Answers to the first five parts of the questionnaires were obtained through interviewing the household head or any adult member of the household when household head was not present during enumeration. The last two sections of the questionnaire were completed by interviewing all eligible women.

The questionnaire was worded in colloquial Arabic. Questions were written in full on the questionnaire and strict instructions were given to interviewers to read all questions verbatim during the interviews.

Data Sets Linkage

There are 4 data files in this CD, with two key variables in each file to allow the linkage between these files, namely: SERIALP variable (person's number) and SERIALHH (household's number). The following tables describes the files names, content and identification variables.

File Name	Content	Identification Variables
dsrostu	Household's Roster	SERIALP: Unique person number, SERIALHH: Unique household number
dsindenta	Housing	SERIALP: Unique person number, SERIALHH: Unique household number
dswomu	Women	SERIALP: Unique person number, SERIALHH: Unique household number
allbirth	Births	SERIALP: Unique person number, SERIALHH: Unique household number

Methodology

The Study Population

The study population in this survey comprises all households living in the West Bank and Gaza Strip, excluding institutional population and nomads.

The Sample Design

The adopted sample design is a stratified three-stage design for selection of households to be surveyed. At the first stage a sample of *localities* were selected to form the *Primary Sampling Units* (PSUs). The sample localities have been subdivided into *cells* of approximately equal size, and a number of cells were selected randomly from each of the sample localities at the second stage. At the third and final stage, a sample of *households* was selected from the sample cells. The stratification is a subdivision of the PSUs according to district, administrative status of the locality, and estimated population size. The PSUs were selected independently for each stratum, and with probability proportionate to estimated population size.

The planned sample size was 15,000 households. However, due to the sampling frame imperfections which were envisaged, oversampling was carried out at a rate of approximately 30%.

Response Rates

Unit non response: Households not responding

In total, 15,013 dwelling units were selected for interview in the West Bank and 6,209 in Gaza Strip, giving a total of 21,222 dwelling units. For various reasons, all the households corresponding to these dwelling units could not be interviewed, giving rise to response and coverage imperfections in the survey.

Table A1 shows the household response rates by region.

Table A1: Response Rates by Region

Status	West Bank	Gaza Strip	Palestinian Territory
Response Rate	96.33	99.16	97.16
Refusal Rate	1.47	0.42	1.16
Non-Response Rate	3.73	1.29	3.01
Non-Existence Rate	20.80	14.90	19.08
Temporary out of Scope Rate	4.56	4.24	4.47

Definition of used response rates:

The response rate: is the percentage of actual interviews conducted based on the sum of unresolved units and in scope units. It is very high both in Gaza Strip and in the West Bank, compared to surveys in developed countries, but fairly typical for surveys in developing countries. Note that the rate is calculated on the basis of households that existed at the time of the survey, and not the total selected for interviewing.

The refusal rate: is the percentage of households that refused to be interviewed, again based on the sum of unresolved units and in-scope units.

The non-response rate: is the percentage of all non respondent and unresolved units based on the total number of unresolved and in scope units.

The non-existence rate: is the percentage of non-existing households of the total resolved households. The rate is high compared to many other surveys, but roughly comparable to that found in similar surveys in Jordan.

The temporarily out of scope rate: is the percentage of vacant dwelling units (and rather insignificant dwelling units temporarily used for purposes other than housing) to the resolved units. Again, this rate is fairly high a 4.5% but has its explanation in the tendency for people to let houses be vacant instead of renting them out

because of the difficulties of evicting tenants.

In general, the results indicate a successful field work, where non-response is unlikely to compromise the result in any way. The main area of future improvement lies in the listing of dwelling units.

Unit non-response: Non-response within the household

When a household had been selected, there can still be non-response within the household, and this principally stems from women who cannot be interviewed or refuse to be interviewed.

In the 15,653 responding households, there were 26,275 eligible women. The interview results among these were as given in Table A2.

Table A2: Interview Results for Eligible Women by Region

Status	West Bank	Gaza Strip	Palestinian Territory
Interview completed	97.8	98.1	97.9
Refusal	0.2	0.3	0.2
Not usable[1]	0.5	0.5	0.5
Not at home	1.5	1.1	1.4
% with 1 birth or more	54.1	59.1	55.7
% women with one birth or more having recorded birth history	100	100	100

Item non-response

Non-response on particular questions because respondents could not or would not provide answers were generally not a problem in the survey. A major exception was the question on ID cards. In some cases answers to questions were not recorded correctly due to failed edit checks, and were assigned missing values. However, most cases of failed edit checks (either manually, during data entry or through global consistency checks) were referred back to the field.

Some missing values are of particular importance to demographic analysis, principally those that relate to age and timing of vital events

[1] The designation "not usable" were given when the interviewer considered that the answers given could not be relied upon because of the attitude, mental health or other characteristics of the respondent.

such as births, deaths and marriages. In general, compared to demographic surveys in other Arab countries, the amount of missing information is quite low.

Treatment of non-response

Unit non-response on the household level has been adjusted for by correcting the weights at the cell level. Thus, when some households in a cell have refused or could not be contacted, the weights for the other households within that cell has been increased proportionally to the non-response. This procedure assumes, in other words, that the missing households are similar to their neighbors.

Sample Weights

As noted above, calculations of estimators from the Demographic Survey require the use of weights because of the varying inclusion probabilities that the sample design entails. The weights for a given household is simply the inverse of its inclusion probability. This yields the so called expansion weight, which will expand the sample to the total population. However, because the sample was drawn under the assumption that the relative distribution of the population had been estimated correctly, but not necessarily the absolute totals, the expansions weight have not been used. Rather, the so called relative weights have been employed. For each case they have been calculated as the expansion weight divided by the mean of all the expansion weights. The weights used are the same for households, household members, women and children (births), since the sample design required that all such lower level units pertaining to a

household were selected during enumeration.

Estimates of Variance

One of the obstacles in presenting variance estimates in Demographic Surveys that many estimates are not simple estimates formulas, but these were derived from observed indicators by using modules that often have special variance elements because of estimate and the special derived formula for the module.
As it is commonly presented, we will present only the following statistical tests (mean, standard deviation, and sample design effect) for the main indicators.

Data Collection

Data collection was carried out by 20 teams (14 in the West Bank and 6 in Gaza Strip) of female interviewers between April 29,1995 and July 23,1995. Each team consisted of 5 interviewers, a supervisor, a field editor, and a lister. Teams were distributed to the different Districts according to sample allocation, ranging between 1-3 teams in each District.
All field staff received a two-week training session combining general social science research interviewing with specialized training on the demographic survey instruments and procedures.

Reference date

The date referred to in calculating the vital rates and ages, in this survey, it was 30/4/1995.

Data Quality

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

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

The response rate is a basic parameter to evaluate the quality of data collection. Here, it is 97.2% of all eligible households, which is very high in this kind of surveys. The refusal rate is merely 1.16%. Also, the survey successfully completed interviews with 98% of all women eligible for interview, and the refusal rate is only 0.2%.

Although bias resulting from nonresponse is difficult to measure, we can safely conclude that the sample estimates are virtually free from bias resulting from these very low rates of nonresponse. This is true even if nonrespondents are distinctive.

Demographic data are particularly subject to various other sources of non-sampling errors, and there are standard techniques to assess the seriousness of these errors. The quality of the age data is of particular importance in demographic surveys, because the age distribution is needed for various demographic purposes. Here, we first present an evaluation of the age data. A preliminary assessment of the coverage of births and quality of the mortality data is then attempted.

Age reporting errors result from incorrect recording of responses during enumeration, misunderstanding of the questions concerning age, mistakes during data entry, or more importantly in our context, respondents not knowing their exact age. Age reporting errors occur in all surveys and this one no exception. However, the amount and seriousness of errors varies a great deal among surveys. It should be mentioned that questions were asked about both completed age and dates of birth in this survey, and official documents were used whenever possible to obtain these data.

A standard way to evaluate the data is to check the extent of age heaping in convenient digits, most commonly 0 and 5. The Wipple index is 100, indicating that the data are free of age heaping at digits 0 and 5. The Myers and Bachi indices are 6.3 and 4.9, respectively, showing little heaping at digits 2 and 7, mostly among women aged

50 years and over, which is not surprising. It should be mentioned that the slight heaping at digits 2 and 7 for older persons, particularly women, in this survey result from preferences for digits 0 and 5 in the 1967 census, which was the basis of the current population registration. The age distribution and the sex ratios by age found in the data are quite consistent with those found in other sources. The indices results and the various checks for external validity indicate that the age data are of very good quality.

Estimates of fertility and mortality are based on data obtained through a birth history approach. In this survey, every married woman aged 14-54 was asked to record her birth history in which detailed questions were asked about all of her births and their survival status. The results obtained by this approach are known to be very good, compared to simple questions about the total number of births and deaths, because respondents are able to recall events more accurately in a birth history approach. Still, however, the data are subject to various sources of error, including underreporting of births and deaths due to memory failure, and misreporting of dates of birth and ages at death, among other things. It is important, therefore, to assess the completeness of coverage and accuracy of reporting of dates of birth and ages at death.

Misreporting of birth dates has serious implications for the estimation of fertility and mortality trends. The most common form of this problem is the heaping of birth dates due to preference for certain digits. Several checks on the heaping of birth dates revealed that this problem is virtually nonexistent in the birth history data.

Misreporting of ages at death is more common in this kind of survey, and is especially important for the estimation of infant mortality. Heaping of age at death in convenient digits (6, 12, 18 months), resulting in the shifting of deaths from one age to another, occurs in all surveys, including this one. However, heaping of ages at death is very minimal in this survey, and almost non-existent for the last 5 years preceding the survey date.

Underreporting of dates of birth and ages at death are also minimal in this survey . Information on month of birth is missing for only 0.8% of all live births reported during the 15 years preceding the survey date. No missing information is found for both month and year of birth during the same period in the survey. Information on age at death is lacking for 1.3% of all deaths occurring in the 15 years preceding the survey date. Thus, underreporting of dates of birth and ages at death is very uncommon in the data.

Inspection of sex ratios at births for all births reported is necessary for uncovering sex selective omission of births. The overall sex ratio at birth is within an acceptable range. The calendar year ratios for the 10 years preceding the survey year are generally good, given the fact that random fluctuations in the ratios for single years are expected. The sex ratios at birth for the five years preceding the survey year are slightly higher than the 105 male births per 100 female births found in most countries, which may indicate some underreporting of female deaths. The reliability of estimates based on slightly higher than expected ratios is unlikely to be affected, however. The overall

results indicate that no significant selective omission of births were found in the data.

The various checks performed on the survey data indicate that the demographic data appear to be of very high quality.