

Statistics Division - United Nations  
Demographic Statistics Section - Questionnaire on Population Estimates

DESCRIPTION OF POPULATION ESTIMATES FOR LATEST YEAR  
GIVEN IN THIS QUESTIONNAIRE

In order that the description of national population estimates on file in the Statistics Division of the United Nations is accurate and complete, it is desirable to provide the method of their construction for confirmation or revision. The questions below relate to coverage of data, and method of estimation. It is required that a check mark (X) be entered in the box following the words which best describe the estimates in terms of these questions.

1. COVERAGE OF DATA

In conformity with definition given in general instructions (see sheet titled "Instructions"), estimates should relate to de facto population. In order to clarify the exact composition of the population, please indicate in the following check box with an "X" the exact disposition of each group listed, i.e. whether it was included, excluded or population group not applicable. Specify years to which description refers to:

| Population Group   | Estimated total population for year 2005 |          |                |
|--|--|----------|----------------|
|  | Included                                 | Excluded | Not applicable |
| (a) Nomads.....  |  |          | X              |
| (b) Persons living in remote areas.....  | X  |          |                |
| (c) Military, naval and diplomatic personnel and their families located outside the country.....   | X  |          |                |
| (d) Merchant seamen and fishermen resident in the country but at sea at the time of the census (including those who have no place of residence other than their quarters aboard ship)..... | X  |          |                |
| (e) Civilian residents temporarily in another country as seasonal workers.....   | X  |          |                |
| (f) Civilian residents who cross a frontier daily to work in another country.....  | X  |          |                |
| (g) Civilian residents other than those in (c), (e), and (f) working in another country.....   | X*                                       |          |                |
| (h) Civilian residents other than those in (c)-(g), temporarily absent from the country.....   | X  |          |                |
| (i) Foreign military, naval and diplomatic personnel and their families located in the country.....  |  | X        |                |
| (j) Civilian aliens temporarily in the country as seasonal workers.....  | X  |          |                |
| (k) Civilian aliens who cross a frontier daily to work in another country.....   |  | X        |                |
| (l) Civilian aliens other than those in (i), (j), and (k) working in another country.....  | X  |          |                |
| (m) Civilian aliens other than those in (i)-(l), temporarily in country.....   |  | X        |                |
| (n) Transients on ships in harbour at the time of the census.....  |  | X        |                |

\* If they have their principal residence in Canada, if not, they are excluded.

Statistics Division - United Nations  
 Demographic Statistics Section - Questionnaire on Population Estimates

2. METHOD OF ESTIMATION

a) Total population

Estimates of total population for a country as a whole may be constructed by a variety of means. Please indicate by a check mark [X] the method used in constructing the latest population estimate for (date) July 1, 2005, indicating the source of "base data" and the "method of time adjustment". If there are publications readily available with the description of methods used, please include them in reply to this questionnaire.

Base Data

- 1- Continuous population register [ ]
- 2- Complete census taken (date) May 15, 2001 [X]
  - i) population actually enumerated [ ]
  - ii) population adjusted to take account of 3.1 % underenumeration
- 3- Sample survey taken (date) \_\_\_\_\_ [ ]
- 4- Partial census taken or partial registration (date) \_\_\_\_\_  
 (Please describe) \_\_\_\_\_
- 5- Non-censal count of (date) \_\_\_\_\_ [ ]  
 (describe method) \_\_\_\_\_
- 6- Conjectual estimate derived by means other than counting [ ]  
 (describe method) \_\_\_\_\_

Method of time adjustment

- 1- Base data secured annually by population register [ ]
- 2- Applying statistics of births and deaths (natural increase), and migration
  - i) Registered vital statistics [ ]
  - ii) Vital statistics adjusted for incompleteness [ ]
- 3- Applying statistics of births and deaths (natural increase), but no account taken of migration
  - i) Registered vital statistics [ ]
  - ii) Vital statistics adjusted for incompleteness [ ]
- 4- Extrapolating mathematically from censuses taken (dates) \_\_\_\_\_, \_\_\_\_\_,  
 and \_\_\_\_\_. Please give formula: \_\_\_\_\_

Statistics Division - United Nations  
Demographic Statistics Section - Questionnaire on Population Estimates

5- Applying an assumed rate of increase, not derived by mathematical extrapolation or interpolation but based on:

- i) Assumption with respect to mortality, fertility, migration [ ]
- ii) Assumption with respect to mortality, fertility, but no account taken of migration [ ]
- iii) Other assumed rate [ ]

If (i), (ii) or (iii) is checked, please give rate used, and describe how obtained: \_\_\_\_\_

6- No time adjustment (base figure held constant) [ ]

7- Other (explain) **The component method is used in the estimation of intercensal and postcensal estimates. Postcensal estimates were obtain by adding the numbers of births, substracting the number of deaths and by adding or substracting the net impact of international and internal migration on the most recent census population adjusted for net census undercoverage (i.e. census undercoverage less census overcoverage). The inclusion of non-permanent residents in the target population dictated that net variation in the size of this subpopulation in Canada be added to the base period. Estimates of population were first produced for each province and territory, and then summed to obtain an estimate of the population of Canada. The component method used in estimating total provincial/territorial population is expressed as follows:**

$$P_{(t+i)} = P_t + B_{(t, t+i)} - D_{(t, t+i)} + I_{(t, t+i)} - [E_{(t, t+i)} + IE_{(t, t+i)}] + RE_{(t, t+i)} + NPK_{(t, t+i)} + N_{(t, t+i)}$$

b) Population by age and sex

Estimates of population according to age and sex are assumed to be constructed on the same base data as are the total estimates. However, certain additional factors may affect age distributions estimated from census enumerations or from sample surveys. Please indicate below the adjustment(s) made in the basic age distribution used to construct estimates shown in Tables 2 and 4.

Adjustments in base

- 1) None-based on population actually enumerated at various ages or estimated from survey results [ ]
- 2) Enumerated population or population estimated from survey results adjusted to take account of underenumeration at various age [ ]
- 3) Base age distribution "smoothed", i.e., adjusted to remove effects of digit preference in age reporting [ ]

Method of time adjustment

Distribution of estimated population according to age and sex may also be made by same methods as used to obtain the projection of the total figure, or it may be derived by distributing the estimate according to the percentage of population in each age-sex group at time of census. Please indicate below the method used in constructing the age-sex distribution of the latest estimate shown in Table 2.

- 1- Applying actual or assumed natural increase and migration [ ]
- 2- Applying actual or assumed natural increase alone [ ]
- 3- Distributing the total estimate according to percentage of population in each age-sex group at time of census of sample survey [ ]
- 4- By other means (describe) **It is done with the component method. See above explanation. The estimates are based on the cohort component and administrative data. Postcensal estimates of population by age and sex were produced following essentially the same approach but applied to each age and sex cohort in the base population.**

Statistics Division - United Nations  
Demographic Statistics Section - Questionnaire on Population Estimates

Disposition of unknown age

If frequency in unknown age category of tables 2 and 4 is zero, please indicate below whether;  
in the preparation of the estimates:

- 1- An age has been assigned to persons for whom age did not appear in the census or sample survey [ ]
- 2- Frequency in unknown age category has been distributed proportionately among known ages [ ]
- 3- The frequency of unknown age appearing in the census or survey was zero [X ]

c) Urban and rural population, and the population of cities

Post-censal estimates of the urban and rural population, or the population of individual cities, can be made in various ways. In some countries continuous population registers permit the up-dating of local population estimates according to registered balances of births, deaths, and changes of residence. In some countries, perhaps, periodic surveys permit the up-dating of urban or city population estimates. In some countries, in relation to post-censal estimates of total population, estimates of urban, or city population may be determined by an extrapolation of the percentage of urban in total, or city in urban, population. In some countries, urban and city population may be determined on the basis of rates of growth of urban or city, population observed over a past period, by assuming such rates of growth to continue. Other methods are also possible. Please indicate below the method used in making post-censal estimates of urban and rural, or of city population.

|  | Urban<br>population | City<br>population |
|--|---------------------|--------------------|
|  | _____               | _____              |
| 1- Population registers.....   | [ ]                 | [ ]                |
| 2- Surveys, other than a census.....   | [ ]                 | [ ]                |
| 3- Extrapolation of percentage.....  | [ ]                 | [ ]                |
| 4- Observed rate of growth, assumed to continue..  | [ ]                 | [ ]                |
| 5- By other means (describe) <b>Postcensal estimates are based on natural increase and migration using the component method (cohort components method) and based on census data and administrative data. This is done following this formula: <math>P_{(t+i)} = P_t + B_{(t,t+i)} - D_{(t,t+i)} + I_{(t,t+i)} - [E_{(t,t+i)} + TE_{(t,t+i)}] + RE_{(t,t+i)} + NPR_{(t,t+i)} + N_{(t,t+i)}</math></b> |                     |                    |
| <b><math>P_{(t+i)}</math> = estimate of population at time t+1</b>   |                     |                    |
| <b><math>P_t</math> = base population at time t (current census adjusted for net census undercoverage or most recent estimates)</b>  |                     |                    |
| <b><math>B_{(t,t+i)}</math> = number of births between time t and t+1</b>  |                     |                    |
| <b><math>D_{(t,t+i)}</math> = number of deaths between time t and t+1</b>  |                     |                    |
| <b><math>I_{(t,t+i)}</math> = number of immigrants between time t and t+1</b>  |                     |                    |
| <b><math>E_{(t,t+i)}</math> = number of emigrants between time t and t+1</b>   |                     |                    |
| <b><math>TE_{(t,t+i)}</math> = net temporary emigrants between time t and t+1</b>  |                     |                    |
| <b><math>RE_{(t,t+i)}</math> = number of returning emigrants between time t and t+1</b>  |                     |                    |
| <b><math>NPR_{(t,t+i)}</math> = net non-permanent residents between time t and t+1</b>   |                     |                    |
| <b><math>N_{(t,t+i)}</math> = net interprovincial migration between time t and t+1</b>   |                     |                    |

$(t, t+i)$  = interval between the date of the base population and the reference date of the estimate.

Statistics Division - United Nations  
Demographic Statistics Section - Questionnaire on Population Estimates

Bibliography of Demographic Statistics

In order to bring up to date the bibliographical information you kindly supplied with last year's questionnaire, please list below publication which have become available since that time or are to be issued in the near future which contain results of your latest population census or survey, and current statistics on population estimates, vital statistics and international migration.

This information is being requested for the purpose of compiling and maintaining a current bibliography of demographic statistics. The citations should, therefore, be in a form suitable for reference purposes, that is, the title, issuing agency or author, place, date of publication and number of pages should be given.

Example: Demographic Yearbook, 1999, United Nations, New York, 2001, 609 pp.

Annual Demographic Statistics, Catalogue no. 91-213-XPB and 91-213-XIB, Statistics Canada, Ottawa

Report on the demographic situation in Canada, Catalogue no. 91-209-XPE and 91-209-XPF, Statistics Canada, Ottawa

Quarterly Demographic Statistics, Catalogue no. 91-002-XIB, Statistics Canada, Ottawa

---

---

---

---

---

---

---

---

---

---