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# **Social security data required for the valuation of a national social security system**

Old age, invalidity and survivors pensions

Sickness and maternity benefits

Work injury benefits

Health care benefits

Unemployment benefits

Family benefits

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**The International Financial and Actuarial Service  
Financial, Actuarial and Statistical Branch  
Social Protection Sector  
International Labour Office  
Geneva, December 2001**

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*First published in 1989, 1994, 1998, 1999, 2000, 2001*

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# Social security data required for the actuarial valuation of a national social security system

## 1. Introduction

This paper provides the framework for the collection of input data for the actuarial valuation of a social security scheme using the ILO methodology. It draws on various documents prepared by the Financial, Actuarial and Statistical branch of the ILO, notably on its forthcoming publication on social budgeting<sup>1</sup>.

Actuarial valuations normally apply to a particular social security scheme, assessing its future revenues, expenditure and thus its financial sustainability. Social budgeting looks at the social protection system in a given country as a whole, and takes into account - apart from present and future balances of individual schemes - also all inter-relations between the schemes and their links to the overall public finance revenues and expenditure. At the same time social budget projection and simulation normally do not extend a horizon of 15 to 20 years, while actuarial valuations of the pension schemes often involve much longer time-horizons. This publication deals with data requirements for actuarial valuations. However, Annex 1 provides also overview of the data required for social budgeting.

In the context of the considerable statistical groundwork and data digging that has to be undertaken as an initial step prior to undertaking a full valuation, this document serves as a standard reference for the collection of the required scheme-specific data and the national information. It concerns the insured population, insurable earnings, beneficiaries and benefit provisions as well as the general population, the macro-economy, the labour market and employment. The statistical personnel of a social security institution should be in a position to organise and initiate the collection of the relevant data before the social security specialist begins his/her analysis of the scheme.

The scope of this paper covers general economic information, long-term benefit schemes, short-term cash benefit schemes, employment injury schemes, health care, unemployment schemes and family allowance.

Chart 1 provides a brief summary of the process for completing a valuation where the double-framed boxes, located at the beginning of the process, are the subject of this document. This paper has been drafted in conformity with a paper on internal guidelines to actuarial advisers working in the context of ILO assignments.

The present document was prepared by Ms. A. Drouin from the Social security department of the ILO with the collaboration of Ms. P. Lapierre and comments from Mr. M. Cichon, Mr. K. Hagemeyer, Mr. R. Knop, Ms. D. Vergnaud, Mr. K. Hirose, Mr. F. Gbossa and Ms. G. Ferrara.

A diskette containing the proforma tables in Excel is attached to this publication or may be

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<sup>1</sup> ILO (W. Scholz, M. Cichon, K. Hagemeyer) (1999): Social Budgeting, Draft, Financial, Actuarial and Statistical Branch, Social Security Department, Geneva, 271 p.

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obtained upon request.

### ***Banque africaine de données sur la sécurité sociale (Mr. F. GBOSSA)<sup>2</sup>***

A document was written by Mr. F. Gbossa on social security data requirements in countries of Africa. It suggests a data bank necessary for a better analysis of a social security scheme in the context of Africa.

In the first annexe, information requirements concerning the legal provisions of social security schemes of Africa are covered. This information is requested for the three main groups of employees, when applicable, from the private and public sectors and the self-employed persons.

The second annexe is separated into three major groups as above mentioned. For each group, information is requested on old age, survivors=, invalidity, work injury, sickness, health and maternity benefit, and family allowances. The information concerns data on the insured population, beneficiaries and the budget (contributions, revenues and expenditures) as well as on the assets and liabilities.

## **2. General observations and explanations**

The data requirements are given in the form of a set of standard tables which should only be considered as blueprints that will most likely require adjustments to suit the particularities of each social security scheme.

The standard tables only represent the desirable end-result of the statistical analysis for a given scheme as they do not elaborate on how the data has to be collected or derived. Methods of data collection will inevitably vary from scheme to scheme. Collection techniques range from simple copying of readily available statistics produced on a regular basis to special compilation of statistics from records on the insured population and beneficiaries as well as sample surveys which might be necessary to close data gaps. Indeed, the actual method applied for the collection of data must be discussed with the social security specialist as he/she will be the end-user of such data.

It is important to note that for a valuation limited to a few contingencies, data should only be collected for the relevant tables.

Annex 2 provides a checklist of tables to be collected for a specific valuation exercise. It should be completed preliminarily to direct the collection of data.

The collected information should include a footnote reference to each table of data indicating the original source of information and the method used to compile the information in the

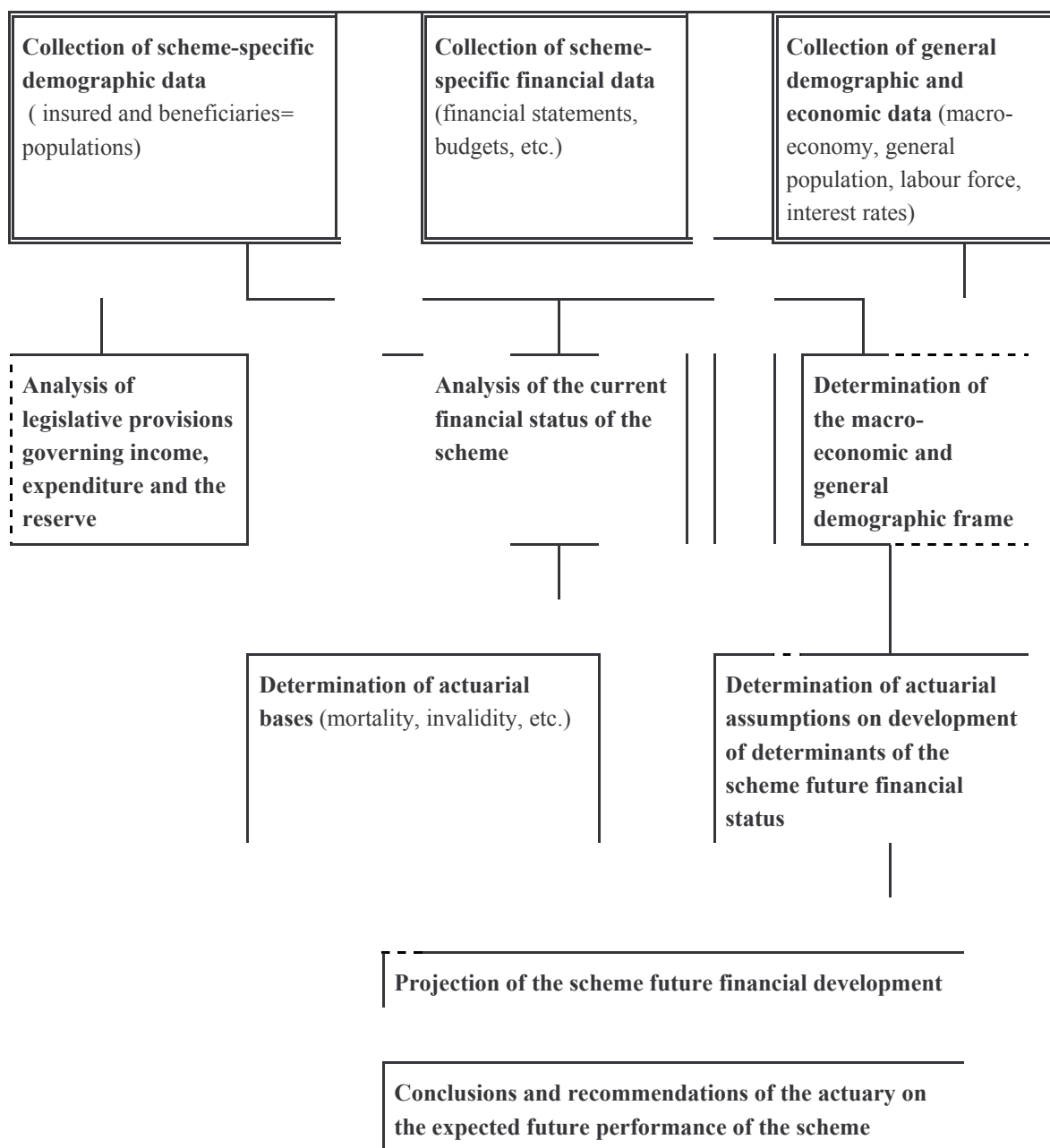
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<sup>2</sup> ILO (F. GBOSSA) (1998): Banque africaine de données sur la sécurité sociale (BADS), Guide statistique Fascicule 7, Financial, Actuarial and Statistical Branch, Social Security Department, Geneva, 60 p.

table (e.g. exact compilation of information on records, full survey, sample survey, etc.).

This document is not meant to be exhaustive and complete. All comments and suggestions for its improvement should be presented to the ILO Financial, Actuarial and Statistical service.

**Chart 1. Flow chart of the process for an actuarial valuation of a social security scheme**



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### **3. Glossary of standard technical definitions for the collection of social security data**

The following technical terms are described and explained with reference to the definitions of the ILO requirements into the Cost of Social Security and the ILO internal guidelines for the actuarial analysis of a national security pension scheme. They attempt should reflect accepted terminology used in international practice. Nevertheless, several definitions may be possible for a given term while there often even exists disagreement between members of the practice. These are suggested definitions, including comments on the context in which they can be best applied, which are not meant to be exhaustive. Social security specialists working in the context of ILO assignments should speak the same language for the sake of facilitating communications and for a better comprehension by the readers and end-users of ILO reports.

#### **Age**

This usually refers to the average age of a cohort of insured persons or beneficiaries as of valuation date. It may be defined as the  $\text{Age at last birthday@}$ , *i.e.* year of valuation minus year of birth. *For example: if the valuation date is as of 31.12.1997 and the pensioner was born on 15.7.1927, then the pensioner=s age as of valuation date would be 70 (1997-1927).*

Often, the requirement to collect data by age allows for the collection of data by 5-year age groups in the event that single-age data is unavailable.

#### **Average replacement ratio**

This is the ratio of the average pension (including pensioners of all ages and from all benefit types) to the average amount of insurable earnings. A relative average replacement ratio may be calculated for each benefit type.

#### **Case of medical care (employment injury benefit branch)**

This refers to the entire set of medical services received by one person suffering from an employment-related injury or disease in the year of award of employment injury benefits (new cases) or in years subsequent to the year of award (old cases). This  $\text{Acase@}$  concept differs from the generally used concept in medical care since it defines the case as the entirety of services incurred per person per year.

#### **Case of rehabilitation (employment injury benefit branch)**

This refers to the entire set of rehabilitative measures and technical devices allocated to a person suffering from an employment-related injury or disease following the accident or diagnosis of an occupational disease. It is related only to  $\text{Anew@}$  benefit cases whereas rehabilitative measures for  $\text{Aold@}$  cases are regarded as medical treatment.

#### **Catchment ratio**



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The ratio of the average insurable earnings of a social security scheme (in a given period) to the average wage of the total economy (in that same period).

**Ceiling on insurable earnings**

The maximum amount of insurable earnings that is subject to the payment of contributions to the scheme. This usually also reflects the maximum amount upon which pension benefits are calculated.

**Contribution collection ratio**

The relative total amount of contributions actually collected by the scheme in a given financial year as stipulated in financial statements to the expected total amount of contributions as declared in the periodical statements of employers to the social security scheme which normally also reflect the liability of the scheme towards insured persons.

**Coverage ratio(registration ratio, insured ratio)**

The ratio of the number of insured persons actually insured/registered/covered by the scheme to the potential number of persons that should be covered which often refers to the number of employed persons in the population or some of its sub-groups.

**Demographic ratio**

The ratio of the number of beneficiaries/pensioners to the number of active insured persons.

**Insurable earnings & Average monthly insurable earnings**

- The wage received as a result of employment services rendered to an employer which are subject to the payment of contributions to the social security scheme. Insurable earnings often include the base salary and may or may not include additional compensation components awarded to an insured person while they exclude income received above the ceiling on insurable earnings.

- Average monthly insurable earnings are equal to the average annual insurable earnings divided by the average number of months of contribution payments recorded. They hence refer to the earnings of a normal month which are subject to contributions.

**Insured persons (Registered persons, actually covered persons)**

& Active insured persons (active/current contributors; contributing population)

& Inactive insured persons (latently insured persons)

Insured persons refer to the group of persons who have been reported as insured/registered/actually covered under the social security scheme at some time, excluding those who have definitely left the scheme, *e.g.* deaths, and those who are already in receipt of long-term benefits. Active insured persons are individuals on whose behalf at least one contribution payment has been paid to the scheme during a given financial year. Inactive insured persons are all registered persons who did not pay contributions (or on behalf of whom no contributions have been paid) during the 12 months preceding the

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valuation date, *i.e.* insured persons minus active insured persons.

**Minimum pension**

The minimum amount of pension that is granted to any pensioner of the benefit categories to which it applies, regardless of the individual pension as calculated on the basis of the benefit formula.

**National average wage**

The national average wage reflects the average amount of earnings received by workers of all sectors in the economy.

**New entrants**

This refers to persons who were first registered with the scheme as insured persons within the last 12 months.

**Past service credits (years / months / weeks)**

The total number of yearly / monthly / weekly contributions or periods of service which have been paid by or on behalf of an insured person or have been credited to the person from his/her entry into the scheme to valuation date.

**Pay-as-you-go cost rate**

The ratio of the total expenditure of a scheme to the sum of insurable earnings of that scheme. It reflects the contribution rate to be charged if a scheme were financed on a pure assessment (Pay-As-You-Go) basis.

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## 4. Summary list of blueprint tables

### Table 1. General information

#### General population

- Table 2. Number of persons at mid year, historical and future  
Table 3. Fertility rates and sex ratio of newborns, historical and future  
Table 4. Mortality rates, historical and future  
Table 5. Net migration (net number of migrants), historical and future  
Table 6. Marriage rate by sex and age group, historical and future

#### Labour force, Employment, Unemployment

- Table 7. Average number of persons, historical and future  
Table 8. Labour force participation rates, historical and future  
Table 9. Total employment, average number of persons, historical and future  
Table 10. Employees, average number of persons, historical and future  
Table 11. Self-employment average number of persons, historical and future  
Table 12. Unemployment, average number of persons, historical and future  
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Table 29. Development of density factors

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- Table 30. Insurable earnings & lower and upper limits, historical  
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Family statistics

Table 59. Proportion of married insured persons and pensioners

Table 60. Spouses= average age differences

Table 61. Average number of dependent children of insured persons and pensioners

Table 62. Dependent children average ages

## 5. Blueprint tables

### General Notes for the collection of data

- (a) The "Year of valuation" refers to the calendar year of the actuarial valuation.
  - (b) Figures for the "official forecast for future years" should be provided only if available and details on the projection method used should be provided.
  - (c) If data is not as of mid-year, then indicate the period as of which the data is relevant.
  - (d) If data is unavailable on a single-age basis, then data by 5-year age groups should be provided.
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**Table 1. General information**

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(1) Actuarial valuation date:

Note: It is mainly used to assess the starting point for the insured population, beneficiaries and the reserve fund of the social security system.

(2) Organization charts of :

- C Social security institution(s)
- C National statistical organization
- C Overall structure of government ministries and institutions responsible for social security and their relation to social security institution(s)

(3) Required documentation:

- C National Statistical Yearbook
- C Annual reports / publications of social security institutions, the Central Bank and relevant ministries
- C National Development / Economic Plan

Note: This refers to the Government perspective and development objectives, usually for the key sectors of the economy and for its social programme, for the short- to medium term.

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**Table 2. General population: Number of persons at mid-year, historical and future**

**Males**

Age	Historical 5 years					Year of valuation	Official forecast for future years <i>(if available)</i>
0 to 100							
<b>Total</b>							

**Females**

Age	Historical 5 years					Year of valuation	Official forecast for future years <i>(if available)</i>
0 to 100							
<b>Total</b>							

**Total (males & females)**

Age	Historical 5 years					Year of valuation	Official forecast for future years <i>(if available)</i>
0 to 100							
<b>Total</b>							

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Date of last census: \_\_\_\_\_

Note: (a) If data is not as of mid-year, then indicate the period as of which the data is relevant.

**Table 3. General population: Fertility rates and sex ratio of newborns, historical and future**

Age	Historical						Year of valuation	Official forecast for future years (if available)
	1970	1975	1980	1985	1990	1995		
0-14								
15-19								
20-24								
25-29								
30-34								
35-39								
40-44								
45-49								
<b>TFR</b> (Total fertility rate)								
<b>Sex ratio of newborns</b>								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Note: (a) The sex ratio of newborns refers to the ratio of the number of male newborns to the number of female newborns.



**Table 4. General population: Mortality rates, historical and future**

**Males**

Age	Historical						Year of valuation	Official forecast for future years (if available)
	1970	1975	1980	1985	1990	1995		
0 to 100								

**Females**

Age	Historical						Year of valuation	Official forecast for future years (if available)
	1970	1975	1980	1985	1990	1995		
0 to 100								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

**Table 5. General population: Net migration (net number of migrants), historical and future**

**Males**

Age groups	Historical						Year of valuation	Official forecast for future years (if available)
	1990	1991	1992	1993	1994	1995		
0-9								
10-19								
20-29								
30-39								
40-49								
50-59								
60-69								
70-79								
80-89								
90-99								
100 +								

**Females**

Age	Historical						Year of valuation	Official forecast for future years (if available)
	1990	1991	1992	1993	1994	1995		
0-9								
10-19								
20-29								
30-39								
40-49								
50-59								
60-69								
70-79								
80-89								
90-99								
100 +								

Source of information: \_\_\_\_\_

Method of data collection:

Note: (a) Number of net migrants = Number of Immigrants - Number of Emigrants

**Table 6. General population: Marriage rate by sex and age group,**

**historical and future**

**Males**

Age groups	Historical						Year of valuation	Official forecast for future years (if available)
	1990	1991	1992	1993	1994	1995		
0-9								
10-19								
20-29								
30-39								
40-49								
50-59								
60-69								
70-79								
80-89								
90-99								
100 +								

**Females**

Age	Historical						Year of valuation	Official forecast for future years (if available)
	1990	1991	1992	1993	1994	1995		
0-9								
10-19								
20-29								
30-39								
40-49								
50-59								
60-69								
70-79								
80-89								
90-99								
100 +								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

**Table 7. Labour force: Average number of persons, historical and future**

**Males**

Age groups	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

**Females**

Age	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							

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<b>Total</b>							
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(continued)

**Table 7. Labour force: Average number of persons, historical and future**

**Total (males & females)**

Age	Historical					Year of valuation	Official forecast for future years (if available)
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of labour force: \_\_\_\_\_

Notes:

- (a) Labour force data should reflect the average number of persons in a given calendar year. If otherwise, please indicate the exact basis.
-

**Table 8. Labour force: Labour force participation rates, historical and future**

**Males**

Age groups	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

**Females**

Age	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

Source of information:

Method of data collection: \_\_\_\_\_

Note: (a) Labour force data should reflect the average number of persons in a given calendar year. If otherwise, please indicate the exact basis.

**Table 9. Total employment: Average number of persons, historical and future**

**Males**

Age groups	Historical 5 years					Year of valuation	Official forecast for future years <i>(if available)</i>
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

**Females**

Age	Historical 5 years					Year of valuation	Official forecast for future years <i>(if available)</i>
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							

60-64							
65-69							
70-74							
75+							
<b>Total</b>							

(continued)

**Table 9. Total employment: Average number of persons, historical and future**

**Total (males & females)**

Age	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of employment:

Note: (a) Employment data should reflect the average number of persons in a given calendar year. If



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otherwise, please indicate the exact basis.

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**Table 10. Employees: Average number of persons, historical and future**

**Males**

Age groups	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

**Females**

Age	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

(continued)

Table 10. Employees: Average number of persons, historical and future

Total (males & females)

Age	Historical					Year of valuation	Official forecast for future years (if available)
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of employment: \_\_\_\_\_

Note: (a) Employment data should reflect the average number of persons in a given calendar year. If otherwise, please indicate the exact basis.

**Table 11. Self-employment: Average number of persons, historical and future**

**Males**

Age groups	Historical 5 years					Year of valuation	Official forecast for future years <i>(if available)</i>
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

**Females**

Age	Historical 5 years					Year of valuation	Official forecast for future years <i>(if available)</i>
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							

<b>Total</b>							
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(continued)

**Table 11. Self-employment: Average number of persons, historical and future**

**Total (males & females)**

Age	Historical 5 years					Year of valuation	Official forecast for future years (if available)
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of self-employment:

Note: (a) Self-employment data should reflect the average number of persons in a given calendar year. If otherwise, please indicate the exact basis.

**Table 12.    Unemployment:    Average number of persons,  
historical and future**

**Males**

Age groups	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

**Females**

Age	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							

<b>Total</b>							
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(continued)

**Table 12. Unemployment: Average number of persons, historical and future**

**Total (males & females)**

Age	Historical 5 years					Year of valuation	Official forecast for future years (if available)
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of unemployment (registered) and the reference group to which it is compared:

Note: (a) Unemployment data should reflect the average number of persons in a given calendar year. If otherwise, please indicate the exact basis.





**Table 13. Unemployment: Unemployment rates, historical and future**

**Males**

Age groups	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

**Females**

Age	Historical					Year of valuation	Official forecast for future years <i>(if available)</i>
	5 years						
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75+							
<b>Total</b>							

Source of information:

---

Method of data collection: \_\_\_\_\_

Note: (a) Unemployment data should reflect the average in a given calendar year. If otherwise, please indicate the exact basis.

---

**Table 14. Wages: Total compensation of employees (current prices), historical**

Year	Total (in the economy)	By economic sector					
1970  <i>to</i>  Year of valuation							

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of total compensation@ and the reference groups to which it relates:

---

**Table 15. Wages: Wage share of gross domestic product (GDP)**

Year	Total (in the economy)	By economic sector						
1970  <i>to</i>  Year of valuation								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

**Table 16. Wages: Average wages for the economy and by sector**

Year	National average wage	Average wage by economic sector					
<p style="text-align: center;">1970</p> <p style="text-align: center;"><i>to</i></p> <p style="text-align: center;">Year of valuation</p>							

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of Anational average wage@, including the method of calculation:

---

**Table 17. Gross domestic product (GDP) by economic sectors**

Year	GDP in current prices by economic sector				GDP in constant prices by economic sector			
1970 <i>to</i> Year of valuation								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of GDP, including the method of calculation:

\_\_\_\_\_  
\_\_\_\_\_

---

**Table 18. Gross domestic product (GDP) sectoral deflators**

Year	Sectoral GDP deflators						
1970 <i>to</i> Year of valuation							

Source of information:

\_\_\_\_\_

Method of data collection:

\_\_\_\_\_

**Table 18. Gross domestic product (GDP) by expenditure components**

Year	GDP in current prices by expenditure components				GDP in constant prices by expenditure components			
1970  <i>to</i>  Year of valuation								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of GDP, including the method of calculation:

\_\_\_\_\_

---

**Table 20. Gross domestic product (GDP) expenditure deflators**

Year	GDP expenditure deflators					
1970 <i>to</i> Year of valuation						

Source of information:

\_\_\_\_\_

Method of data collection:

\_\_\_\_\_



**Table 21. Primary income distribution (current prices)**

	1980 to Year of valuation
Operating surplus, gross Mixed income, gross Operating surplus, net Mixed income, net	
Property income Interest Distributed income of corporations Dividends Withdrawals from income of quasi-corporations Reinvested earnings on direct foreign investment Property income attributed to insurance policyholders Rent	
Entrepreneurial income, gross <i>Entrepreneurial income, net</i>	
Compensation of employees Wages and salaries Employers= social contributions Employers= actual social contributions Employers= imputed social contributions	
Taxes on production and imports Taxes on products Value added types taxes (VAT) Taxes and duties on imports excluding VAT Import duties Taxes on import excluding VAT and duties Export taxes Taxes on products except VAT, import and export taxes Others taxes on production	
Subsidies Subsidies on products Import subsidies Export subsidies Others subsidies on products Others subsidies on production	
Property income Interest Distributed income of corporations Dividends Withdrawals from income of quasi-corporations Reinvested earnings on direct foreign investment Property income attributed to insurance policyholders Rent	

Source of information:

---

Method of data collection: \_\_\_\_\_

**Table 22. Inflation and interest rates**

Year	<u>Inflation</u>		<u>Nominal interest rates</u>	
	Consumer price index	Annual rate of increase	Central Bank	Commercial
1970  <i>to</i>  Year of valuation				

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definitions of technical terms, including their method of calculation and any reference basis:

Note: (a) The data for the consumer price index should also be collected on a monthly basis for at least three observation years.

---

**Table 23. Exchange rates (annual average)**

<b>Year</b>	<b>vs. US\$</b>	<b>vs. EURO</b>	<b>vs. YEN</b>
<b>1970</b>  <i>to</i>  <b>Year of valuation</b>			

Source of information: \_\_\_\_\_

Method of data collection:

Note: (a) The exchange rates should also be collected on a monthly basis for at least three observation years.

---

**Table 24. General government revenue and expenditure (and separately for central government and local governments)**

Detailed information should be provided on public finance for the past 5-10 years and for the short-term forecast, if available, in particular for the social security institutions or for the relevant Government institutions responsible for the budget preparation of social security programmes.

It should include the information relevant to the procedure for the preparation of institutional budgets.

Table below is an example. Actual classification may reflect national practice.

Item	National Currency	
	Statistics	Projections
<b>Revenues</b> Received capital income from enterprises from other government levels Received transfers Received current transfers Taxes Indirect taxes Direct taxes Imputed social security contributions Other current transfers Transfers received from other government levels Received transfers of wealth Other revenues		
<b>Expenditures</b> Interest payments on public debt Interest on national debt Interest on international debt Paid transfers Paid current transfers Subsidies Social benefits Other current transfers Transfers paid to other government levels Paid transfers of wealth Government consumption Net purchase of goods and services Gross wages and salaries Other consumption expenditures Gross investments		

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Net lending / net borrowing (balance)		
---------------------------------------	--	--

**Table 25. Social security legal provisions**

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- (1) Social security Laws, Regulations and Amendments  
This should include the effective time of implementation of new legal provisions and possible modifications.
  
  - (2) Summary of legal provisions by benefit branch, *i.e.* those effectively implemented as of valuation date, including:
    - C Definition of legal coverage
    - C Sources of financing (*e.g.* contributions, investment income, regulated Government contribution, *etc.*)
    - C Insured contingencies
    - C Eligibility conditions for entitlement to benefits, including provisions allowing for early and postponed retirement and the latest legal age for entering into retirement
    - C Benefit formulae
    - C Duration of benefit payments
    - C Definition of the financial objective, *i.e.* with respect to the reserve
    - C Possibility to receive double pensions
    - C *Etc.*
  
  - (3) Indirect social security mechanisms
  
  - (4) Health care protection: details concerning its coverage, its financing and the level of benefits provided. This should include details on possible transfers of funds from the social security scheme(s).
-

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**Table 26. Social security financial reporting**

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- (1) Institutional budget, (statement of income and expenditure) for the past 5-10 years and the short-term budget forecast including detailed income and expenditure items by benefit branch such as contribution revenues, investment income, regulated Government payment transfers, arrears, benefit payments by benefit type, administrative expenses, equipment expenses, inspection expenses, *etc.*
  - (2) Statement of assets and liabilities for the past 5-10 years
  - (3) Cash flow statement for the past 5-10 years
  - (4) Statement on investments for the past 5-10 years, including complete details on the investment policy
  - (5) Reserve funds for the past 5-10 years, including the legal financial objective of the scheme by benefit branch
  - (6) Administrative audits , including any prior external studies relevant to the social security scheme(s)
-

**Table 27. Insured population: Number of persons, historical**

Year	<u>Total insured population</u>		<u>Active insured persons</u>		<u>Inactive insured persons</u>		<u>Insured dependents (if relevant)</u>	
	Males	Females	Males	Females	Males	Females	Males	Females
1970								
<i>to</i>								
Year of valuation								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of the insured population and its sub-components, including information on the potential group of insured persons  
(cf. Section 3 on Glossary of standard ILO technical terminology and technical definitions for the collection of data)

Notes:

- (a) In case of different insured population by benefit branch, a separate table should be provided for each branch.
- (b) Disaggregated data should be provided if the insured population is further broken down and records are maintained, *e.g.* by economic sector, public versus private sectors.
- (c) Active insured persons are usually defined as those who have contributed for at least one month (or on another basis) in the year prior to valuation date.

**Table 28. Insured population: Age distribution at valuation date**

Age	<u>Total insured population</u>		<u>Active insured persons</u>		<u>Inactive insured persons</u>		<u>Insured dependents (if relevant)</u>	
	Males	Females	Males	Females	Males	Females	Males	Females
0-14								
15-19								
20-24								
25-29								
30-34								
35-39								
40-44								
45-49								
50-54								
55-59								
60-64								
65-69								
70-74								
75+								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Notes:

- (a) In case of different insured population by benefit branch, a separate table should be provided for each branch.
- (b) Disaggregated data should be provided if the insured population is further broken down and records are maintained, *e.g.* by economic sector, public versus private sectors.



**Table 29. Insured population: Development of density factors**  
*(density for contribution payments)*

Age	Number of active insured persons who contributed exactly for a given number of months in the year prior to valuation date												Average no. months of paid contributions (c)	Density factors (d)	
	1 mth	2 mth s	3 mth s	4 mth s	5 mth s	6 mth s	7 mth s	8 mth s	9 mth s	10 mth s	11 mth s	12 mth s			
15 to 74															
<b>Total or Average</b>															

Notes:

- (a) Table 19 is suggested to develop the density factor while there may be other valid methods to arrive at the same result.
- (b) Table 19 should be determined also for additional years prior to valuation date (3 to 5) in order to assess whether there may be a changing density pattern over time.
- (c) The Aaverage number of months of paid contributions@ is determined on an annual basis and it is equal to A / B  
 where A and B are defined as follows:

$$\begin{aligned}
 A = & [1 \text{ mth} * \text{No. of actives of age X who contributed exactly for 1 month}] \\
 & + [2 \text{ mths} * \text{No. of actives of age X who contributed exactly for 2 months}] \\
 & + [3 \text{ mths} * \text{No. of actives of age X who contributed exactly for 3 months}] \\
 & + \dots \\
 & + [12 \text{ mths} * \text{No. actives of age X who contributed exactly for 12 months}]
 \end{aligned}$$

$$B = \text{Total No. of actives of age X}$$

- (d) The Adensity factor@ is determined on an annual basis and it is equal to the AAverage number of months of paid contributions@ divided by 12.

**Table 30. Insured population: Insurable earnings & lower and upper limits, historical**

Year	<u>Average insurable earnings of Active insured persons</u>		Lower limit on insurable earnings (floor) <i>(if applicable)</i>	Upper limit on insurable earnings (ceiling) <i>(if applicable)</i>
	Males	Females		
1970  <i>to</i>  Year of valuation				

Source of information:

Method of data collection:

Basis and monetary unit:

*(e.g., monthly insurable earnings in US\$)*

Detailed definition of insurable earnings:

*(cf. Section 3 on Glossary of standard ILO technical terminology and technical definitions for the collection of data)*

Notes:

- (a) Insurable earnings should reflect the actual earnings received in a month for which a contribution payment has been made, *i.e.* in the case of monthly insurable earnings, the annual amount of earnings should be divided by the number of months of paid contributions (hence, they should not be calculated as the annual earnings divided by 12).
- (b) In case of different insured population by benefit branch, a separate table on insurable earnings should be provided for each branch.
- (c) Disaggregated data on insurable earnings should be provided if the insured population is further broken down and records are maintained, *e.g.* by economic sector, public versus private sectors.
- (d) Active insured persons are usually defined as those who have contributed for at least one month (or on another basis) in the year prior to valuation date.

**Table 31. Insured population: Monthly insurable earnings in year of valuation**

Age	<u>Average monthly insurable earnings</u>	
	Males	Females
15 <i>to</i> 74		

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Basis and monetary unit:

(*e.g.*, monthly insurable earnings in US\$)

Notes:

- (a) Monthly insurable earnings should be calculated as the average for the 12-month period prior to valuation date. They should reflect actual earnings received in a month for which a contribution payment has been made, *i.e.* they should be equal to the average total amount of insurable earnings for the 12-month period divided by the average number of months of paid contributions.
- (b) Earnings may be provided on another periodicity basis, *e.g.* weekly, quarterly, *etc.*
- (c) In case of different insured population by benefit branch, a separate table on insurable earnings should be provided for each branch.
- (d) Disaggregated data on insurable earnings should be provided if the insured population is further broken down and records are maintained, *e.g.* by economic sector, public versus private sectors.
- (e) Active insured persons are usually defined as those who have contributed for at least one month (or on another basis) in the year prior to valuation date.

**Table 32. Insured population: Past insurable credits of active insured persons as of valuation date**

Age	<u>Number of actives who cumulated the given number of past insurable credits as of valuation date</u>					<u>Average past insurable credits since entry into scheme</u>
	0 to 1 year	1 to 2 years	...	54 to 55 years	55 + years	
15 to 74						
<b>Total</b>						

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Reference basis: \_\_\_\_\_

(e.g. in reference to paid or declared contributions or to periods of rendered service)

Detailed definition of past insurable credits for active insured persons:

(cf. Section 3 on Glossary of standard ILO technical terminology and technical definitions for the collection of data)

\_\_\_\_\_

\_\_\_\_\_

Notes:

- (a) Active insured persons normally refer to registered insured persons who have paid at least one contribution payment in the year prior to valuation date.
  - (b) Data provided in Table 22 should refer to the corresponding data on the active insured persons of Table 3.
- \_\_\_\_\_
- \_\_\_\_\_

**Table 33. Insured population: Past insurable credits of inactive insured persons as of valuation date**

Age	<u>Average past insurable credits since entry into scheme of inactive insured persons</u>	
	Males	Females
15 to 74		
<b>Average</b>		

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Basis:  
(e.g., monthly, weekly, annual)

Reference basis: \_\_\_\_\_  
(e.g. in reference to paid or declared contributions or to periods of rendered service)

Detailed definition of past insurable credits for inactive insured persons:  
(cf. Section 3 on Glossary of standard ILO technical terminology and technical definitions for the collection of data)

- Notes:
- (a) Inactive insured persons normally refers to registered insured persons who have not paid any contribution in the year prior to valuation date.
  - (b) Data provided in Table 23 should refer to the corresponding data on the inactive insured persons of Table 3.

**Table 34. Insured population: New entrants, historical**

Year	<u>Total annual number of new entrants</u>	
	Males	Females
1970 <i>to</i> Year of valuation		

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Detailed definition of the new entrants:

(*cf.* Section 3 on Glossary of standard ILO technical terminology and technical definitions for the collection of data)

Notes:

- (a) In case of different insured population by benefit branch, a separate table should be provided for each branch.
- (b) Disaggregated data should be provided if the insured population is further broken down and records are maintained, *e.g.* by economic sector, public versus private sectors.

**Table 35. Insured population: New entrants age distribution  
in prior 3 years to valuation date**

Age	<u>New entrants in year prior to valuation date</u>		<u>New entrants in second year prior to valuation date</u>		<u>New entrants in third year prior to valuation date</u>	
	Males	Females	Males	Females	Males	Females
0-14						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
50-54						
55-59						
60-64						
65-69						
70-74						
75+						

Source of information: \_\_\_\_\_

Method of data collection:

Notes:

- (a) In case of different insured population by benefit branch, a separate table should be provided for each branch.
- (b) Disaggregated data should be provided if the insured population is further broken down and records are maintained, *e.g.* by economic sector, public versus private sectors.

**Table 36. Long-term benefit branch: Historical number of beneficiaries & expenditure**

Year	Old-age		Invalidity <i>(non-work related)</i>		Survivorship <i>(widows= and orphans= pensions separately)</i>		Lump sum payments <i>(separately by benefit type)</i>	
	Number	Expenditure	Number	Expenditure	Number	Expenditure	Number	Expenditure
1970  to  Year of valuation								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Basis and monetary unit for benefit expenditure:  
*(e.g., monthly US\$)*

\_\_\_\_\_

Detailed definition of pension benefits and lump sum payments, including the description of other benefits not covered in this generic table:

Notes:

- (a) Data should be provided for all benefit types including those that may not be included in Table 26. In particular, lump sum payments should be provided separately for each type of benefit, *e.g.* lump sum payments for insured persons not eligible to an old-age pension, lump sum payments for insured persons not eligible to an invalidity pension, *etc.*
- (b) Invalidity pensions are related to non-work related invalidities. They should be disaggregated between full and partial invalidities, if applicable.
- (c) Survivorship pensions should be provided separately for widows, widowers, orphans and other dependents.



**Table 37. Long-term benefit branch: Pensions in payment at valuation date**  
(e.g. in month prior to valuation date)

**Table 37.1. Old-age pensions-in-payment at valuation date**

Age	<u>Males</u>		<u>Females</u>	
	Number	Expenditure	Number	Expenditure
15 to 100				
<b>Total</b>				

Note: Data should be collected from the first age at which it is possible to begin receiving old age pension.

**Table 37.2. Invalidity pensions-in-payment at valuation date**  
**(non-work related)**  
(full and partial invalidity pensions separately, if applicable)

Age	<u>Males</u>		<u>Females</u>	
	Number	Expenditure	Number	Expenditure
15 to 100				
<b>Total</b>				

**Table 37.3. Widow(er)s= pensions-in-payment at valuation date**  
**(non-work related)**

Age	<u>Males</u>		<u>Females</u>	
	Number	Expenditure	Number	Expenditure
15				

<i>to</i>				
<b>100</b>				
<b>Total</b>				

**Table 37.4. Orphans= and other dependents= pensions-in-payment at valuation date (non-work related)**

Age	<u>Males</u>		<u>Females</u>	
	Number	Expenditure	Number	Expenditure
<b>0</b>				
<i>to</i>				
<b>100</b>				
<b>Total</b>				

Source of information:

Method of data collection:

~~Basis and monetary unit for benefit expenditure:~~

(e.g., monthly US\$)

Are work injury pensions still payable after a person has reached the normal retirement age ? or does he/she then begin to receive an old-age pension ?

Notes:

- (a) Data should be provided for all benefit types including those that may not be included in Table 36.
- (b) Invalidity pensions are related to non-work related invalidities. They should be disaggregated between full and partial invalidities, if applicable.

- 
- (c) Survivorship pensions should be provided separately for widows, widowers, orphans and other dependents.
-

**Table 38. Long-term benefit branch: New benefit cases in 3 years prior to valuation date**

**Table 38.1. Male old-age pensions: New cases**

Age	<u>New cases in</u> <u>1st year prior to valuation date</u>		<u>New cases in</u> <u>2nd year prior to valuation date</u>		<u>New cases in</u> <u>3rd year prior to valuation date</u>	
	Number	Average pension	Number	Average pension	Number	Average pension
15 to 100		Average past insurable credits		Average past insurable credits		Average past insurable credits
Total / Average						

**Table 38.2. Female old-age pensions: New cases**

Age	<u>New cases in15:11</u> <u>1st year prior to valuation date</u>		<u>New cases in</u> <u>2nd year prior to valuation date</u>		<u>New cases in</u> <u>3rd year prior to valuation date</u>	
	Number	Average pension	Number	Average pension	Number	Average pension
15 to 100		Average past insurable credits		Average past insurable credits		Average past insurable credits
Total / Average						

Average									
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**Table 38.3. Male invalidity pensions: New cases (non-work related) (full and partial invalidity pension separately, if applicable)**

Age	<u>New cases in</u> <u>1st year prior to valuation date</u>			<u>New cases in</u> <u>2nd year prior to valuation date</u>			<u>New cases in</u> <u>3rd year prior to valuation date</u>		
	Number	Average pension	Average past insurable credits	Number	Average pension	Average past insurable credits	Number	Average pension	Average past insurable credits
15 to 100									
Total / Average									

**Table 38.4. Female invalidity pensions: New cases (non-work related) (full and partial invalidity pension separately, if applicable)**

Age	<u>New cases in</u> <u>1st year prior to valuation date</u>			<u>New cases in</u> <u>2nd year prior to valuation date</u>			<u>New cases in</u> <u>3rd year prior to valuation date</u>		
	Number	Average pension	Average past insurable credits	Number	Average pension	Average past insurable credits	Number	Average pension	Average past insurable credits
15 to 100									
Total / Average									

**Table 38.5. Widows= pensions: New cases** (Widowers= pensions should be provided separately if there is a significant number of them)

Age	<u>New cases in</u> <u>1st year prior to valuation date</u>		<u>New cases in</u> <u>2nd year prior to valuation date</u>		<u>New cases in</u> <u>3rd year prior to valuation date</u>		
	Number	Average pension	Number	Average pension	Number	Average pension	Average past insurable credits
15 to 100							
Total / Average							

**Table 38.6. Orphans= and other dependents= pensions: New cases**

Age	<u>New cases in</u> <u>1st year prior to valuation date</u>		<u>New cases in</u> <u>2nd year prior to valuation date</u>		<u>New cases in</u> <u>3rd year prior to valuation date</u>		
	Number	Average pension	Number	Average pension	Number	Average pension	Average past insurable credits
0 to 100							
Total / Average							

---

(continued)

**Table 38. Long-term benefit branch: New benefit cases in 3 years prior to valuation date**

Source of information:

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Method of data collection:

---

Basis and monetary unit for average pensions  
and past insurable credits: (e.g., monthly US\$, and years of contributions)

Note:

(a) Data for old-age pensions should be collected from the first age at which it is possible to begin receiving the benefit.

---

**Table 39. Long-term benefit branch: Pensioners= cohort tables**

Note: The pensioners= cohort tables are used for the development of assumptions.

**Table 39.1 Male old-age pensioners= cohort table**

Cohort year of birth	1985					1986					Year of valuation				
	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year
	$A(85)$	$+B(85)$	$-C(85)$	$-D(85)$	$=E(85)$	$=A(86)$	$+B(86)$	$-C(86)$	$-D(86)$	$=E(86)$	$A(y)$ $=E(y-1)$	$+B(y)$	$-C(y)$	$-D(y)$	$=E(y)$
1895															
1896															
1897															
1898															
1900															
1901															
to															
X															

Note: (a) X is the last year of birth for which it is possible to begin receiving old age pension.



**Table 39.2 Female old-age pensioners= cohort table**

Cohort year of birth	1985					1986					...	Year of valuation				
	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	...	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year
	$A(85)$	$+B(85)$	$-C(85)$	$-D(85)$	$=E(85)$	$=A(86)$	$+B(86)$	$-C(86)$	$-D(86)$	$=E(86)$	...	$A(y)$	$+B(y)$	$-C(y)$	$-D(y)$	$=E(y)$
1895																
1896																
1897																
1898																
1900																
1901																
<i>to</i>																
<b>X</b>																

Note: (a) X is the last year of birth for which it is possible to begin receiving old age pension.

**Table 39.3 Male invalidity (non-work related) pensioners= cohort table**

Cohort year of birth	1985					1986					...	Year of valuation				
	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	....	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year
	$A(85)$	$+B(85)$	$-C(85)$	$-D(85)$	$=E(85)$	$=A(86)$	$+B(86)$	$-C(86)$	$-D(86)$	$=E(86)$	....	$A(y)$	$+B(y)$	$-C(y)$	$-D(y)$	$=E(y)$
1895																
1896																
1897																
1898																
1900																
1901																
<i>to</i>																
Year of valuation																

**Table 39.4 Female invalidity (non-work related) pensioners= cohort table**

Cohort year of birth	1985					1986					...	Year of valuation				
	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	...	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year
	$A(85)$	$+B(85)$	$-C(85)$	$-D(85)$	$=E(85)$	$A(86)$	$+B(86)$	$-C(86)$	$-D(86)$	$=E(86)$	...	$A(y)$	$+B(y)$	$-C(y)$	$-D(y)$	$=E(y)$
1895																
1896																
1897																
1898																
1900																
1901																
<i>to</i>																
Year of valuation																

---

*(continued)*

**Table 39. Long-term benefit branch: Pensioners= cohort tables**

---

Source of information:

Method of data collection:

Notes:

(a) The pensioners= cohort table is used to derive the mortality, invalidity and other incidence rates for future projections. However, a preliminary assessment of the observed past experience must determine if it is sufficiently reliable to serve as a basis for these future projections.

Each cohort is represented by the same year of birth and the corresponding data must be filled for each of the observation years from 1985 up to the year of valuation, or the latest possible.

(b)  $A(y)$  : Number of pensioners at the beginning of observation year  $Ay@$

$B(y)$  : Number of entries during observation year  $Ay@$ , *i.e.* number of new pensioners

$C(y)$  : Number of exits as a result of death during observation year  $Ay@$ , *i.e.* number of deceased pensioners

$D(y)$  : Number of exits other than by death during observation year  $Ay@$ , *i.e.* number of pensioners who stopped receiving benefits because of rehabilitation, *etc.*

$E(y)$  : Number of pensioners at the end of observation year  $Ay@$ , *i.e.* number of remaining pensioners in payment.

$$E(y) = A(y) + B(y) - C(y) - D(y)$$

$$A(y+1) = E(y)$$

---

**Table 40. Work Injury benefit branch: Historical number of beneficiaries & expenditure**

Year	Work injury full invalidity pensions		Work injury partial invalidity pensions		Work injury survivorship pensions (widows= and orphans= pensions separately)		Work injury lump sum payments	
	Number	Expenditure	Number	Expenditure	Number	Expenditure	Number	Expenditure
1970  to  Year of valuation								

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Basis and monetary unit for benefit expenditure:  
(e.g., monthly US\$)

Detailed definition of pension benefits and lump sum payments, including the description of other benefits not covered in this generic table: \_\_\_\_\_

Notes:

- (a) Data should be provided for all benefit types including those that may not be included in Table 39.
- (b) Invalidity pensions are related to work related disabilities. They should be disaggregated between full and partial invalidities, if applicable.
- (c) Survivorship pensions should be provided separately for widows, widowers, orphans and other dependents.

**Table 41. Work injury benefit branch: Pensions in payment at valuation date**  
(e.g. in month prior to valuation date)

**Table 41.1. Work injury full invalidity pensions-in-payment at valuation date**

Age	<u>Males</u>		<u>Females</u>	
	Number	Expenditure	Number	Expenditure
15				
to				
100				
<b>Total</b>				

**Table 41.2. Work injury partial invalidity pensions-in-payment at valuation date**

Age	<u>Males</u>		<u>Females</u>	
	Number	Expenditure	Number	Expenditure
15				
to				
100				
<b>Total</b>				

**Table 41.3. Work injury widow(er)s= pensions-in-payment at valuation date**

Age	<u>Males</u>		<u>Females</u>	
	Number	Expenditure	Number	Expenditure
15				
to				
100				
<b>Total</b>				

**Table 41.4. Work injury orphans & other dependents pensions-in-payment at**

---

**valuation date**

Age	<u>Males</u>		<u>Females</u>	
	Number	Expenditure	Number	Expenditure
0				
to				
100				
<b>Total</b>				

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_

Basis and monetary unit for benefit expenditure:  
(e.g., monthly US\$) \_\_\_\_\_

Notes:

- (a) Data should be provided for all benefit types including those that may not be included in Table 40.
  - (b) Invalidity pensions are related to non-work related invalidities. They should be disaggregated between full and partial invalidities, if applicable.
  - (c) Survivorship pensions should be provided separately for widows, widowers, orphans and other dependents.
-

**Table 42. Work injury benefit branch: New benefit cases in 3 years prior to valuation date**

**Table 42.1. Male full work injury invalidity pensions: New cases granted a pension**

Age	<u>New cases in 1st year prior to valuation date</u>		<u>New cases in 2nd year prior to valuation date</u>		<u>New cases in 3rd year prior to valuation date</u>	
	Number	Average pension	Number	Average pension	Number	Average pension
15 to 100						
Total / Average						

**Table 42.2. Female full work injury invalidity pensions: New cases granted a pension**

Age	<u>New cases in 1st year prior to valuation date</u>		<u>New cases in 2nd year prior to valuation date</u>		<u>New cases in 3rd year prior to valuation date</u>	
	Number	Average pension	Number	Average pension	Number	Average pension
15 to 100						
Total / Average						



Note: Data should be collected up to the last age at which it is possible to begin receiving a work injury pension.

**Table 42.3. Male partial work injury invalidity pensions: New cases granted a pension**

Age	<u>Number of new cases in</u> <u>1st year prior to valuation date</u> <u>by degree of incapacity</u>				<u>Number of new cases in</u> <u>2nd year prior to valuation date</u> <u>by degree of incapacity</u>				<u>Number of new cases in</u> <u>3rd year prior to valuation date</u> <u>by degree of incapacity</u>						
	0 %	21 %	41 %	61 %	81 %	0 %	21 %	41 %	61 %	81 %	0 %	21 %	41 %	61 %	81 %
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20%	40%	60%	80%	99%	20%	40%	60%	80%	99%	20%	40%	60%	80%	99%
15 to 100															
Total / Average															

**Table 42.4. Female partial work injury invalidity pensions: New cases granted a pension**

Age	<u>Number of new cases in</u> <u>1st year prior to valuation date</u> <u>by degree of incapacity</u>				<u>Number of new cases in</u> <u>2nd year prior to valuation date</u> <u>by degree of incapacity</u>				<u>Number of new cases in</u> <u>3rd year prior to valuation date</u> <u>by degree of incapacity</u>						
	0 %	21 %	41 %	61 %	81 %	0 %	21 %	41 %	61 %	81 %	0 %	21 %	41 %	61 %	81 %
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20%	40%	60%	80%	99%	20%	40%	60%	80%	99%	20%	40%	60%	80%	99%
15 to 100															
Total / Average															





**Table 43. Work injury benefit branch: Pensioners= cohort tables**

Note: The pensioner=s cohort tables are used for the development of assumptions.

**Table 43.1. Male work injury invalidity (full and partial) pensioners= cohort table**

Cohort year of birth	1985					1986					....	Year of valuation				
	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	....	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year
1895	$A(85)$	$+B(85)$	$-C(85)$	$-D(85)$	$=E(85)$	$=A(86)$	$+B(86)$	$-C(86)$	$-D(86)$	$=E(86)$	....	$A(y)$	$+B(y)$	$-C(y)$	$-D(y)$	$=E(y)$
1896																
1897																
1898																
1900																
1901																
to																
Year of valuation																

**Table 43.2. Female work injury invalidity (full and partial) pensioners= cohort table**

Cohort year of birth	1985					1986					Year of valuation					
	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year	....	No. pens. at start of year	New entries	Exits by death	Exits (others)	No. pens. at end of year
1895 1896 1897 1898 1900 1901 <i>to</i> Year of valuation	$A(85)$	$+B(85)$	$-C(85)$	$-D(85)$	$=E(85)$	$=A(86)$	$+B(86)$	$-C(86)$	$-D(86)$	$=E(86)$	....	$A(y)$ $=E(y-1)$	$+B(y)$	$-C(y)$	$-D(y)$	$=E(y)$

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*(continued)*

**Table 43. Work injury benefit branch: Pensioners= cohort tables**

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Source of information:

Method of data collection:

Notes:

(a) The pensioners= cohort table is used to derive the mortality, invalidity and other incidence rates for future projections. However, a preliminary assessment of the observed past experience must determine if it is sufficiently reliable to serve as a basis for these future projections. Each cohort is represented by the same year of birth and the corresponding data must be filled for each of the observation years from 1985 up to the year of valuation, or the latest possible.

(b)  $A(y)$  : Number of pensioners at the beginning of observation year  $Ay@$

$B(y)$  : Number of entries during observation year  $Ay@$ , *i.e.* number of new pensioners

$C(y)$  : Number of exits as a result of death during observation year  $Ay@$ , *i.e.* number of deceased pensioners

$D(y)$  : Number of exits other than by death during observation year  $Ay@$ , *i.e.* number of pensioners who stopped receiving benefits because of rehabilitation, *etc.*

$E(y)$  : Number of pensioners at the end of observation year  $Ay@$ , *i.e.* number of remaining pensioners in payment.

$$E(y) = A(y) + B(y) - C(y) - D(y)$$

$$A(y+1) = E(y)$$

---

**Table 44. Work injury benefit branch: Medical care, number of cases and total cost, historical**

Age	<u>Medical cases in 1st year prior to valuation date</u>			<u>New cases in 2nd year prior to valuation date</u>			<u>New cases in 3rd year prior to valuation date</u>		
	<u>Males</u>		<u>Females</u>	<u>Males</u>		<u>Females</u>	<u>Males</u>		<u>Females</u>
	Number of medical cases	Total annual cost	Number of medical cases	Total annual cost	Number of medical cases	Total annual cost	Number of medical cases	Total annual cost	Number of medical cases
15									
<i>to</i>									
100									
<b>Total</b>									

Source of information:

Method of data collection:

Monetary unit for total cost:

**Table 45. Work injury benefit branch: Rehabilitation care, number of cases and total cost, historical**  
*(including prosthetic devices)*

Age	<u>Rehabilitation cases in</u> <u>1st year prior to valuation date</u>			<u>Rehabilitation cases in</u> <u>2nd year prior to valuation date</u>			<u>Rehabilitation cases in</u> <u>3rd year prior to valuation date</u>		
	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
	Number of rehab. cases	Number of rehab. cases	annual cost	Number of rehab. cases	Number of rehab. cases	annual cost	Number of rehab. cases	Number of rehab. cases	annual cost
15									
<i>to</i>									
100									
<b>Total</b>									

Source of information:

Method of data collection:

Monetary unit for total cost:



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**Table 46. Health care**

**Table 46.1. National health care infrastructure**

(The following data are needed separately for public and private infrastructure. Public infrastructure might be further separated into ministry of health (MOH) and public non-MOH categories)

Number of hospital
Number of hospital beds
Number of ambulatory clinics / health centres
Number of employed physicians
Number of others health care staff

**Table 46.2. Government health care scheme (expenditure of MOH)**

<p><b>Accounts</b></p>
------------------------

Complete accounts for MOH
Budget of MOH for the first projection year
Income of government facilities from patients= co-payments

Transfers from other schemes
------------------------------

Others MOH expenditures
-------------------------

<p><b>Functional expenditure and utilization</b></p>
--

Ambulatory care expenditure
-----------------------------

Staff cost
------------

Non-staff costs
-----------------

Total number of ambulatory care cases
---------------------------------------

Number of cases per capita by sex (active group and younger, and for group in pensionable age)
--

Expenditure on hospital care
------------------------------

Staff cost
------------

Non-staff costs
-----------------

Total number of hospital days
-------------------------------

Number of hospital days per capita by sex (active group and younger, and for group in pensionable age)
--

Dental care expenditure
-------------------------

Staff cost
------------

Non-staff costs
-----------------

Total number of dental care cases
-----------------------------------

Number of cases per capita by sex
-----------------------------------

Pharmaceutical expenditure
----------------------------

Total number of prescriptions
-------------------------------

Number of prescriptions per capita by sex
---

Others benefits expenditure
-----------------------------

**Table 46.3. Others public schemes (military schemes, etc...)**

(Mutatis mutandis, same breakdowns as above)

<p><b>Accounts</b></p> <p>Income and expenditure statements, balance sheets</p> <p>Initial reserves</p> <p><b>Expenditure side</b></p> <p>Ambulatory care expenditure</p> <p>Total number of ambulatory care cases</p> <p>Number of cases per capita by sex (active group and younger, and for group in pensionable age)</p> <p>Expenditure on hospital care</p> <p>Total number of hospital days</p> <p>Number of hospital days per capita by sex (active group and younger, and for group in pensionable age)</p> <p>Dental care expenditure</p> <p>Total number of dental care cases</p> <p>Number of cases per capita by sex</p> <p>Pharmaceutical expenditure</p> <p>Total number of prescriptions</p> <p>Number of prescriptions per capita by sex</p> <p>Others benefit expenditure</p> <p>Administrative expenditures</p> <p>Transfers to others schemes</p> <p>Transfers to reserves</p> <p><b>Revenue side</b></p> <p>Number of contributors to the scheme</p> <p>Average insurable earnings per contributor per scheme by age and sex</p> <p>Number of dependent spouses and children per contributor by age, sex and scheme</p> <p>Other income</p> <p>Co-payments</p> <p>Investment income</p> <p>Public subsidies</p>	
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**Table 46.4. Private health insurance, charities, employer-based schemes and other private arrangements**

Except for income side, same breakdowns (if applicable) as under social insurance

**Table 47. National health care budget**

	National health_service or public service health care scheme	Social insurance scheme	Special public schemes (military, etc)	Private insurance industry	Employer- based health care schemes	Charities	Others private arrangements	Total
<b>Expenditure</b>								
Benefit expenditure								
Ambulatory care								
Hospital care								
Dental care								
Pharmaceuticals								
Others care								
Administrative expenditure								
Transfers to reserves								
Transfers to others schemes								
<i>Total expenditure</i>								
<b>Revenues</b>								
Income from general revenues								
<i>Including subsidies</i>								
Income from earmarked taxes								
Income from social security								
Employer contributions								
Employee contributions								
Imputed employer								
Transfers from reserves								
Transfers from others schemes								
Private out-of-pocket								
<i>Including co-payments</i>								
<b>Balancing item</b>								

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**Reserves at end of the year**

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**Table 48. Legal description of the scheme ( for all existing schemes )**

**1. Population coverage**

1.1 Population groups / institutions financing the scheme

1.2 Population groups eligible for benefits under the schemes

1.2.1 Population groups covered without financing obligations ( children, dependent family members, etc...)

**2. Benefits provided**

2.1 Type and extent of benefits provided to covered persons

2.2 Eligibility conditions ( for each type of benefit )

**3. Pattern of delivery and remuneration of providers**

3.1 Type of participating providers and relationships with them

(Physicians, hospital, etc.;under global contract, owned or employed by financing agent, etc.)

3.2 Remuneration of providers (fee-for-service, capitation, budget, etc.)

**4. Financing rules**

4.1 General method and sources of financing

( Contributions, general taxes, earmarked taxes)

4.2 Actuarial equilibrium (definition of the level of reserves to be maintained during a defined period )

4.3 The determination of the contribution rate or tax rate, if applicable

**Table 49. Short-term benefit branch: Sickness benefit awards, historical**

Age	<u>Number of new sickness benefit awards in 1st year prior to valuation date</u>		<u>Number of new sickness benefit awards in 2nd year prior to valuation date</u>		<u>Number of new sickness benefit awards in 3rd year prior to valuation date</u>	
	Males	Females	Males	Females	Males	Females
15						
<i>to</i>						
100						
<b>Total</b>						

Source of information:

Method of data collection:

**Table 50. Short-term benefit branch: Sickness benefits= average duration, historical**

**Table 50.1 Male sickness benefits= average duration**

Age	<u>1st year prior to valuation date</u>		<u>2nd year prior to valuation date</u>		<u>3rd year prior to valuation date</u>				
	No. of terminated sickness cases (a)	Total no. of benefit days among terminated cases (b)	Average duration of sickness benefits (b) / (a)	No. of terminated sickness cases (c)	Total no. of benefit days among terminated cases (d)	Average duration of sickness benefits (d) / (c)	No. of terminated sickness cases (e)	Total no. of benefit days among terminated cases (f)	Average duration of sickness benefits (f) / (e)
15									
<i>to</i>									
100									
<b>Total</b>									

Note: The number of terminated sickness cases could also be collected according to the number of sickness days.

**Table 50.2 Female sickness benefits= average duration**

Age	<u>1st year prior to valuation date</u>		<u>2nd year prior to valuation date</u>		<u>3rd year prior to valuation date</u>				
	No. of terminated sickness cases (a)	Total no. of benefit days among terminated cases (b)	Average duration of sickness benefits (b) / (a)	No. of terminated sickness cases (c)	Total no. of benefit days among terminated cases (d)	Average duration of sickness benefits (d) / (c)	No. of terminated sickness cases (e)	Total no. of benefit days among terminated cases (f)	Average duration of sickness benefits (f) / (e)
15									
<i>to</i>									
100									
<b>Total</b>									

Source of information:

Method of data collection:

Note: The number of terminated sickness cases could also be collected according to the number of sickness days.



**Table 51. Short-term benefit branch: Maternity benefit awards, historical**

Age	<u>Number of new maternity benefit awards in 1st year prior to valuation date</u>		<u>Number of new maternity benefit awards in 2nd year prior to valuation date</u>		<u>Number of new maternity benefit awards in 3rd year prior to valuation date</u>	
	Males	Females	Males	Females	Males	Females
15 <i>to</i> 50						
<b>Total</b>						

Source of information:

Method of data collection:

**Table 52. Short-term benefit branch: Maternity benefits= average duration, historical**

Age	<u>1st year prior to valuation date</u>		<u>2nd year prior to valuation date</u>		<u>3rd year prior to valuation date</u>				
	No. of terminated maternity cases (a)	Total no. of benefit days among terminated cases (b)	Average duration of maternity benefits (b) / (a)	No. of terminated maternity cases (c)	Total no. of benefit days among terminated cases (d)	Average duration of maternity benefits (d) / (c)	No. of terminated maternity cases (e)	Total no. of benefit days among terminated cases (f)	Average duration of maternity benefits (f) / (e)
15									
<i>to</i>									
100									
<b>Total</b>									

Source of information:

Method of data collection:

Note: The number of terminated maternity cases could also be collected according to the number of maternity days.

**Table 53. Short-term benefit branch: Funeral benefits, historical**

Age	<u>Number of funeral grants awarded in 1st year prior to valuation date</u>		<u>Number of funeral grants awarded in 2nd year prior to valuation date</u>		<u>Number of funeral grants awarded in 3rd year prior to valuation date</u>	
	Males	Females	Total	Males	Females	Total
0						
<i>to</i>						
100						
<b>Total</b>						

Source of information:

Method of data collection:

**Table 54. Unemployment benefits: Number of beneficiaries by sex and age groups**

Age	<u>Number of beneficiaries in 1st year prior to valuation date</u>		<u>Number of beneficiaries in 2nd year prior to valuation date</u>		<u>Number of beneficiaries in 3rd year prior to valuation date</u>	
	Males	Females	Total	Males	Females	Total
0						
to						
100						
<b>Total</b>						

Source of information:

Method of data collection:

Note:

- (a) The number of unemployment cases could also be collected according to the unemployment benefit duration.

**Table 55. Unemployment benefits: Average benefit by sex and age groups**

Age	<u>Average benefit awarded in 1st year prior to valuation date</u>		<u>Average benefit awarded in 2nd year prior to valuation date</u>		<u>Average benefit awarded in 3rd year prior to valuation date</u>	
	Males	Females	Total	Males	Females	Total
0						
<i>to</i>						
100						
<b>Total</b>						

Source of information:

Method of data collection:

**Table 56. Unemployment benefits: Severance pay by sex and age groups**

Age	<u>Severance pay in 1st year prior to valuation date</u>		<u>Severance pay in 2nd year prior to valuation date</u>		<u>Severance pay in 3rd year prior to valuation date</u>				
	Males	Females	Total	Males	Females	Total	Males	Females	Total
0									
to									
100									
<b>Total</b>									

Source of information:

Method of data collection:

**Table 57. Unemployment benefits: Severance pay per capita by economic sectors**

Age	<u>Severance pay</u> <u>in 1st year prior to valuation date</u>			<u>Severance pay</u> <u>in 2nd year prior to valuation date</u>			<u>Severance pay</u> <u>in 3rd year prior to valuation date</u>		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
	0								
<i>to</i>									
100									
<b>Total</b>									

Source of information:

Method of data collection:

Note:

(a) This table should be filled for every economic sector separately.

---

**Table 58. Family benefits**

- 
- (1) Average benefit per case by age and sex of the insured
  - (2) Number of benefit cases by age and sex of the insured
  - (3) Number of cases of parental leave by age and sex of the insured
-



**Table 59. Family statistics: Proportion of married insured persons and pensioners**

**Table 59.1. Proportion of married male insured persons and pensioners**

Age	Number of married male insured persons and pensioners <i>(including only those with potentially eligible spouses to survivors= benefits)</i>	Total number of male insured persons and pensioners	Proportion of married male insured persons and pensioners
	(a)	(b)	(a) / (b) * 100
15 to 99			
Total / Average			

**Table 59.2. Proportion of married female insured persons and pensioners**

Age	Number of married female insured persons and pensioners <i>(including only those with potentially eligible spouses to survivors= benefits)</i>	Total number of female insured persons and pensioners	Proportion of married female insured persons and pensioners
	(c)	(d)	(c) / (d) * 100
15 to 99			
Total / Average			

Source of information:

Method of data collection:

Note: (a) The number of married male insured persons should only include those who have spouses that would be entitled to a widow=s benefit in case of death of the insured

---

person. This is relevant to schemes that restrict their survivors= benefits only on the basis of age, marriage and other dependence criteria.

---

**Table 60. Family statistics: Spouses= average age differences**

**Table 60.1. Married male insured persons and pensioners by age-group of the insured person/pensioner and by age-group of the female spouse**

Age-group of male insured person or pensioner	Number of female spouses by age-group													Average age of female spouses		
	0 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74		75 +	Total no. of female spouses
0-14																
15-19																
20-24																
25-29																
30-34																
35-39																
40-44																
45-49																
50-54																
55-59																
60-64																
65-69																
70-74																
75-79																
80-84																
84-89																
90-94																
95-99																
100+																
Total																

**Table 60.2 Married female insured persons and pensioners by age-group of the insured person/ pensioner and by age-group of the male spouse**

Age-group of female insured person or pensioner	Number of male spouses by age-group													Average age of male spouses		
	0 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74		75 +	Total no. of male spouses
0-14																
15-19																
20-24																
25-29																
30-34																
35-39																
40-44																
45-49																
50-54																
55-59																
60-64																
65-69																
70-74																
75-79																
80-84																
84-89																
90-94																
95-99																
100+																



**Table 61. Family statistics: Average number of dependent children of insured persons and pensioners**

**Table 61.1. Male insured persons and pensioners: Average number of dependent children**

Age-group of male insured person or pensioners	No. of dependent children of male insured persons and pensioners (a)	Total no. of male insured persons and pensioners (b)	Average number of children of male insured persons and pensioners (a) / (b)
15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 84-89 90-94 95-99 100+			
<b>Total</b>			

**Table 61.2. Female insured persons and pensioners: Average number of dependent children**

Age-group of female insured person or pensioners	No. of dependent children of female insured persons and pensioners (c)	Total no. of female insured persons and pensioners (d)	Average number of children of female insured persons and pensioners (c) / (d)
15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 84-89 90-94 95-99 100+			
<b>Total</b>			

Source of information: \_\_\_\_\_

Method of data collection: \_\_\_\_\_





**Table 62.2. Female insured persons and pensioners by age-group of the insured person/pensioner and by age of dependent child**

Age-group of female insured person or pensioner	Number of dependent children by age																		Total no. of dependent children	Average age of dependent children			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			18		
0-14																							
15-19																							
20-24																							
25-29																							
30-34																							
35-39																							
40-44																							
45-49																							
50-54																							
55-59																							
60-64																							
65-69																							
70-74																							
75-79																							
80-84																							
84-89																							
90-94																							
95-99																							
100+																							
<b>Total</b>																							

Source of information:

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Method of data collection:

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# Annexes

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## **Annex 1 Social budgeting data requirements: A check list.**

The following summarizes the checklist provided for the development of a social budget according to ILO methodology.<sup>3</sup>

### **1. Statistical data**

#### **1.1 Demographic and household data**

##### **1.1.1 Demographic data**

- (1) Population by sex and age groups**
- (2) Mortality table by sex and age groups**
- (3) Fertility rates by age groups**
- (4) Net international migration by sex and age groups**
- (5) Marriage rate by sex and age groups**

##### **1.1.2 Household data**

###### *Census data (or similar source)*

- (6) Total number of households by household size**
- (7) Number of households and household members by socio-economic groups (classified by labour market status of the breadwinner: households headed by employees, self-employed, farmers, pensioners, unemployed and others)**

###### *Household income and expenditure survey data*

- (8) Number of households (and number of persons) by average monthly per capita household income (total and for each of the socio-economic groups). Income brackets can be expressed as a ratio of average monthly per capita income to national monthly average wage. Ideally, the size of the income bracket should be at least of 5% of the average wage.**
- (9) Composition of the total household income by source: income from employment, self-employment, agricultural activity, from different social benefits by type (pensions, other social insurance benefits, family benefits, unemployment benefits, social assistance and all the other income-tested**

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ILO (1999): Social budgeting, Draft, Financial, Actuarial and Statistical Branch, Social Security Department, Geneva, 271p.

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benefits), other income - for each of the socio-economic groups and for all the income brackets.

## **1.2 Economy**

- (10) GDP in current prices by economic sectors (National Accounts = SNA)
- (11) GDP in constant prices by economic sectors (SNA)
- (12) Sectoral GDP deflators
- (13) GDP in current prices by expenditure components (SNA)
- (14) GDP in constant prices by expenditure components (SNA)
- (15) GDP expenditure deflators
- (16) Primary factor income distribution (SNA)
- (17) Employers= social security contributions (SNA)
- (18) Sum of gross wages (SNA)
- (19) Income tax on sum of wages (SNA)
- (20) Employees= social security contributions on sum of wages (SNA)
- (21) National gross average wage by economic sectors and average grand total (SNA)
- (22) National net average wage by economic sectors and average grand total (SNA)
- (23) Consumer price index (CPI) B year-to-year basis
- (24) Monthly consumer price index (CPI) for at least three observation years
- (25) Short- and long-term interest rates (market)
- (26) Short- and long-term interest rates (policy instruments)
- (27) Exchange rate versus US\$/EURO/YEN (annual average)
- (28) Monthly exchange rates for at least three observation years

## **1.3 Labour force and employment**

- (29) Labour force participation rates (or labour force) by sex and single age (labour force survey (LFS) data)
- (30) Number of employed by age, sex, and main sectors of the economy (if different coverage and social security systems for different sectors) and by public and private sector (if different coverage and social security systems for public and private employees) (LFS data)
- (31) Employees by age, sex and main economic sectors (LFS data)
- (32) Self-employed by age, sex and main economic sectors (LFS data)
- (33) Unemployed by age and sex (LFS data)
- (34) Registered unemployed by age and sex (administrative data)

## **1.4 Government accounts**

- (35) Accounts of central government (SNA)
- (36) Accounts of state/provincial governments (SNA)
- (37) Accounts of local governments (SNA)
- (38) Accounts of social security system (SNA)
- (39) Consolidated public sector accounts (SNA)

## **1.5 Social protection**

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### **1.5.1 Financial accounts**

- (40) Revenue and expenditure of the pension scheme(s)**
- (41) Revenue and expenditure of the public health scheme(s)**
- (42) Revenue and expenditure of the unemployment benefit scheme**
- (43) Revenue and expenditure of the social assistance scheme**
- (44) Revenue and expenditure of family benefit scheme(s)**
- (45) Revenue and expenditure of sickness benefit scheme(s)**
- (46) Revenue and expenditure of other short-term benefit schemes**
- (47) Revenue and expenditure of other social protection schemes**
- (48) Revenue and expenditure of other social purpose schemes**

### **1.5.2 Contributions and contributors**

- (49) Average insurable earnings of the pension scheme(s) by sex and age groups and average grand total**
- (50) Average insurable earnings of the health insurance scheme(s) by sex and profession and average grand total**
- (51) Average insurable earnings of the unemployment insurance by sex and profession and average grand total**
- (52) Average insurable earnings of the other social security schemes by sex and profession and average grand total**
- (53) Contribution collection and/or insurance ceilings on earnings in the pension scheme(s)**
- (54) Contribution collection and/or insurance ceilings on earnings in the health insurance scheme(s)**
- (55) Contribution collection and/or insurance ceilings on earnings in the unemployment insurance**
- (56) Contribution collection and/or insurance ceilings on earnings in other social security schemes**
- (57) Legal contribution rates in the pension scheme(s)**
- (58) Legal contribution rates in the health insurance scheme(s)**
- (59) Legal contribution rates in the unemployment insurance**
- (60) Legal contribution rates in other social security schemes**
- (61) Number of contributors to pension scheme(s) by sex and age groups and grand total**
- (62) Number of contributors to pension scheme(s) by sex and profession and grand total**
- (63) Number of contributors to health insurance scheme(s) by sex and profession and grand total**
- (64) Number of contributors to unemployment insurance by sex and profession and grand total**
- (65) Number of contributors to other social security schemes by sex and profession and grand total**
- (66) For the pension scheme(s): number of dependant spouses and children per contributor by sex and age groups and grand total**
- (67) For other schemes(s): number of dependant spouses and children per contributor by sex and profession of contributor and grand total**
- (68) Average co-payments to health care per patient**
- (69) Number of patients**

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### 1.5.3 Average benefits/costs, beneficiaries and providers

#### *Pensions*

- (70) Average amount of old-age pensions by sex and age groups
- (71) Average amount of old-age pensions by pre-retirement profession
- (72) Average amount of invalidity pensions by sex and age groups
- (73) Average amount of invalidity pensions by pre-retirement profession
- (74) Average amount of survivors= pensions by sex and age groups
- (75) Average amount of survivors= pensions by pre-invalidity profession
- (76) Average amount of minimum/social pensions by sex and age groups
- (77) Average amount of minimum/social pensions by pre-retirement profession
- (78) Number of old-age pension(er)s by sex and age groups
- (79) Number of old-age pension(er)s by pre-retirement profession
- (80) Number of invalidity pension(er)s by sex and age groups
- (81) Number of invalidity pension(er)s by pre-retirement profession
- (82) Number of survivors= pension(er)s by sex and age groups
- (83) Number of survivors= pension(er)s by pre-retirement profession
- (84) Number of minimum pension(er)s by sex and age groups
- (85) Number of minimum pension(er)s by pre-retirement profession
- (86) Total pension benefit expenditure by type of pension

#### *Health care*

##### Government health care scheme

- (87) Total costs per public hospital
- (88) Total costs per public hospital bed
- (89) Total costs per ambulatory clinic/health centre
- (90) Total costs per employed physician
- (91) Total costs per other health care staff
- (92) Dental care expenditure per case
- (93) Pharmaceutical expenditure per prescription
- (94) Number of public hospitals
- (95) Number of public hospital beds
- (96) Number of public hospital days
- (97) Number of hospital days per patient by sex and three age groups: children/youth, actives and pensionable ages
- (98) Number of ambulatory clinics/health centres
- (99) Number of ambulatory care cases by sex and three age groups: children/youth, actives and pensionable ages
- (100) Number of employed physicians
- (101) Number of other health care staff
- (102) Number of dental care cases per patient by sex and three age groups: children/youth, actives and pensionable ages
- (103) Number of prescriptions
- (104) Number of prescriptions per patient by sex and three age groups: children/youth, actives

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and pensionable ages

**Social insurance health scheme**

- (105) Number of ambulatory care cases
- (106) Number of cases per capita by sex and three age groups: children/youth, actives and pensionable ages
- (107) Number of hospital days
- (108) Number of hospital days per capita by sex and three age groups: children/youth, actives and pensionable ages
- (109) Number of dental care cases
- (110) Number of cases per capita by sex and three age groups: children/youth, actives and pensionable ages
- (111) Number of prescriptions
- (112) Number of prescriptions per capita by sex and three age groups: children/youth, actives and pensionable ages

**Private health care**

- (113) Number of private hospital beds
- (114) Number of private practitioners and specialists

***Sickness and maternity benefits***

- (115) Average daily sickness benefit by sex and age groups
- (116) Number of sickness days per year and insured person by sex and age groups
- (117) Number of work days per year
- (118) Average maternity benefit per day
- (119) Number of maternity benefit cases per woman
- (120) Number of maternity days per maternity case

***Unemployment benefits***

- (121) Average benefit by sex and age groups
- (122) Number of beneficiaries by sex and age groups
- (123) Average duration of benefit payment per case
- (124) Severance pay by sex and age groups
- (125) Severance pay per capita by economic sector
- (126) Number of dismissals
- (127) Number of severance pay cases

***Family benefits***

- (128) Average benefit per case
- (129) Number of benefit cases
- (130) Average benefit per case



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(131) Number of cases of parental leave

*Social assistance (means-tested benefit)*

(132) Average monthly benefits per recipient unit by type of benefit

(133) Number of benefit recipients by type of benefit

(134) Minimum subsistence levels for different recipient units

*Housing benefits*

(135) Average benefit per case

(136) Number of cases

*Tax benefits*

(137) Estimated total tax benefits (tax credits with a  $\Delta$ social purpose $\text{\textcircled{e}}$ )

*Other benefits*

(138) Other benefits per case

(139) Cases of other benefits

**2. Assumptions**

(A1) (Official) population projection

(A2) Projection of labour force participation rates by sex and single age groups

(A3) Projection of GDP at constant prices

(A4) Projection of labour productivity

(A5) Projection of labour productivity by economic sectors

(A6) Projection of GDP deflators

(A7) Projection of interest rate(s)

(A8) Projection of households composition and average household size

**3 Legislation**

(L1) Laws on pension scheme(s)

(L2) Laws on health scheme(s)

(L3) Laws on unemployment scheme(s)

(L4) Laws on social assistance scheme(s)

(L5) Laws on family benefit scheme(s)

(L6) Laws sickness benefit scheme(s)

(L7) Laws on other short-term benefit schemes

(L8) Laws on other social protection schemes

(L9) Laws on other social purpose schemes

(L10) Tax laws with a  $\Delta$ social purpose $\text{\textcircled{e}}$



## Annex 2 List of tables to be collected for a specific valuation

The following charts of tables should be used on a case-by-case basis to determine what tables are needed in the context of a specific assignment with the ILO. For example, old-age invalidity would require all information from tables 1 to 38.

	Basis and Units	Scheme									
		OA	INV	SURV	SICK	MAT	WI	HEALTH	UNEMP	FAM	
1	General Information										
<b>General population</b>											
2	Number of persons at mid-year, historical and future										
3	Fertility rates and sex ratio of newborns, historical and future										
4	Mortality rates, historical and future										
5	Net migration (net number if migrants), historical and future										
6	Marriage rate by sex and age group, historical and future										
<b>Labour force, employment and unemployment</b>											
7	Average number of persons, historical and future										
8	Labour force participation rates, historical and future										
9	Total employment, average number of persons, historical and future										
10	Employees, average number of persons, historical and future										
11	Self-employment average number of persons, historical and future										
12	Unemployment, average number of persons, historical and future										
13	Unemployment rates, historical and future										

Legend: OA: Old-age      INV: Invalidity benefit      SURV: Survivors= benefit  
 SICK: Sickness benefit    MAT: Maternity benefit      WI: Work injury benefit  
 HEALTH: Health care      UNEMP: Unemployment benefit    FAM: Family benefit

	Basis and Units								
	OA	INV	SURV	SICK	MAT	WI	HEALTH	UNEMP	FAM
<b>Wages, interest rates, inflation, GDP</b>									
14 Total compensation of employees (current prices), historical									
15 Wage share of gross domestic product									
16 Average wages for the economy and by sector									
17 Gross domestic product by economic sectors									
18 Sectoral GDP deflators									
19 Gross domestic product by expenditure components									
20 GDP expenditure components									
21 Primary income distribution (current prices)									
22 Inflation and interest rates									
23 Exchange rate versus US\$/EURO/YEN (annual average)									
24 General government revenue and expenditure									
<b>Social security</b>									
25 Social security legal provisions									
26 Social security financial reporting									
<b>Insured population</b>									
27 Insured population, number of persons, historical									
28 Insured population, age distribution at valuation date									

29	Development of density factors																			
30	Insurable earnings & lower upper limits, historical																			
31	Monthly insurable earnings in years of valuation																			

Legend: OA: Old-age      INV: Invalidity benefit      SURV: Survivors= benefit  
 SICK: Sickness benefit      MAT: Maternity benefit      WI: Work injury benefit  
 HEALTH: Health care      UNEMP: Unemployment benefit      FAM: Family benefit

		OA	INV	SURV	SICK	MAT	WI	HEALTH	UNEMP	FAM
		Basis and Units								
32	Past insurable credits of active insured persons as of valuation date									
33	Past insurable credits of inactive insured persons as of valuation date									
34	New entrants, historical									
35	New entrants age distribution in prior 3 years to valuation date									
<b>Long-term benefit branch</b>										
36	Historical number of beneficiaries & expenditure									
37	Pensions in payment at valuation date									
38	New benefit cases in 3 years prior to valuation date									
39	Pensioners' cohort tables									
<b>Work injury benefit branch</b>										
40	Historical number of beneficiaries & expenditure									
41	Pensions in payment at valuation date									
42	New benefit cases in 3 years prior to valuation date									
43	Pensioners' cohort tables									
44	Medical care, number of cases and total cost, historical									



Family statistics												
59	Proportion of married insured persons and pensioners											
60	Development of spouses' average age differences											
61	Average number of dependent children of insured persons and pensioners											
62	Development of dependent children average ages											

Legend: OA: Old-age      INV: Invalidity benefit      SURV: Survivors= benefit  
 SICK: Sickness benefit    MAT: Maternity benefit      WI: Work injury benefit  
 HEALTH: Health care      UNEMP: Unemployment benefit    FAM: Family benefit

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