



**STUDIES IN METHODS**

Series F No. 49

**HANDBOOK ON SOCIAL INDICATORS**

**UNITED NATIONS**



DEPARTMENT OF INTERNATIONAL, ECONOMIC AND SOCIAL AFFAIRS  
STATISTICAL OFFICE

**STUDIES IN METHODS**

**Series F No. 49**

**HANDBOOK ON SOCIAL INDICATORS**



**UNITED NATIONS**  
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The designations "more developed", "less developed" and "least developed" countries, areas or regions are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process.

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## PREFACE

Since its inception, the United Nations has been concerned with issues of development, levels of living and related social, economic and environment conditions, pursuant to the promotion of "higher standards of living, full employment, and conditions of economic and social progress and development" as set forth in the Charter of the United Nations (Article 55). This concern has long been reflected in the statistical work of the United Nations and its specialized agencies carried out under the overall guidance of the United Nations Statistical Commission. Towards this end, the Report on International Definition and Measurement of Standards and Levels of Living, 1/ prepared by an expert group, was published in 1954 and followed by the publication in 1951 of International Definition and Measurement of Levels of Living: An Interim Guide, 2/ prepared jointly with the Food and Agriculture Organization of the United Nations, the International Labour Organisation, the United Nations Educational, Scientific and Cultural Organization and the World Health Organization.

The objective of the present publication is to provide up-to-date guidance to all those at national, regional and international levels concerned with the selection and compilation of social indicators on levels of living and related social and economic conditions, taking into account development of statistical methods and data collection programmes relevant to social statistics and indicators since preliminary guidelines on social indicators were published by the United Nations in 1978. 3/ For this purpose the United Nations framework for the integration of social, demographic and related economic and other statistics (FSDS), as set out in the preliminary guidelines and related technical reports, is used as the organizational and conceptual framework. 4/ FSDS in turn draws on statistical concepts and methods developed over many years at national, regional and international levels for the basic statistical data collection programmes which provide the source data for integration and for indicators. The scope of the present Handbook is limited to the development and definition of indicators within the context of FSDS. Hence, no attempt is made to update previously issued material reviewing other national and international studies and publications on indicators, although this material has been drawn on extensively for reference and illustration. 5/

The present publication is intended for users and producers of social indicators for countries at all stages of development. This audience comprises persons with varying degrees of familiarity with statistics and statistical systems and methods as well as varying degrees of expertise in the various subject-matter fields involved. Accordingly, the Handbook attempts to provide a common orientation to all those concerned with social indicators regardless of their professional background or their areas of primary interest. Since the audience is also concerned with countries and areas at different levels of development and with many different social and economic circumstances and policy interests, not all parts of the Handbook will be equally relevant to all users. In the presentation of series and classifications for indicators, therefore, the practice adopted in the preliminary guideline on indicators, distinguishing those which are most relevant and practicable for countries at various stages of development, such as least developed, developing and more developed, is continued. This approach has been deliberately chosen over a "lowest common denominator" approach so that users of the Handbook can work with a wide range of possibilities and alternatives both in using data which are currently collected for indicators and in planning their

social indicators programmes in the future. The Handbook is not intended to present recommendations on social indicators. Rather the intention is to assist users in designing programmes suited to their own particular needs, circumstances and priorities. In its discussions on social indicators, the United Nations Statistical Commission has frequently reiterated the importance of a non-directive approach to indicators, focusing on possibilities and alternatives to suit particular circumstances rather than a single fixed set of universally valid indicators.

The development of social indicators is a wide-ranging and multifaceted process which aims to bring together basic statistics from many different fields and data collection programmes and recompile them for many different purposes. As already noted, the present report supplements and brings up to date extensive work of the United Nations and its specialized agencies on social indicators and measurement of levels of living, including the publications on FSDS already referred to. However, it is still far from a final and comprehensive statement on the subject, as new needs are constantly being identified and national statistical programmes and their underlying statistical concepts, methods and technologies are continuing to evolve and develop at a rapid pace to meet these needs. Nevertheless, it is hoped that the present Handbook can provide a basic core of structure, concepts and methods to promote this process and thereby promote the development of social statistics and indicators to better meet a wide variety of user needs and more effectively integrate the use of the basic data.

Comments and suggestions concerning the present Handbook are welcome and should be addressed to the Director, Statistical Office, United Nations, New York 10017.

#### Notes

1/ United Nations publication, Sales No. 1954.IV.5.

2/ United Nations publication, Sales No. E.64.IV.7.

3/ Social Indicators: Preliminary Guidelines and Illustrative Series, Statistical Papers, Series M, No. 63 (United Nations publication, Sales No. E.78.XV(1,6)).

4/ See Towards a System of Social and Demographic Statistics, Studies in Methods, Series F, No. 18 (United Nations publication, Sales No. E.74.XVII.8), Studies in the Integration of Social Statistics: A Technical Report, Studies in Methods, Series F, No. 24 (United Nations publication, Sales No. E.79.XVII.4) and Improving Social Statistics in Developing Countries: Technical Report, Studies in Methods, Series F, No. 25 (United Nations publication, Sales No. E.79.XVII.12).

5/ See especially the reports to the Statistical Commission on social statistics and indicators cited in the introduction below.

## CONTENTS

<u>Chapter</u>	<u>Page</u>
Preface .....	iii
Introduction .....	1
I. USES AND OBJECTIVES OF THE HANDBOOK .....	4
A. Users and uses of the Handbook .....	4
B. Development of indicators on women and special population groups ..	5
C. Monitoring levels of living and socio-economic development .....	6
II. SCOPE AND COVERAGE OF INDICATORS AND LIST OF FIELDS AND TOPICS IN THE HANDBOOK .....	13
Annex. List of fields and topics in the Handbook .....	15
III. METHODS OF COMPIILATION .....	18
A. Sources of data and their co-ordination .....	20
B. Types of indicators and methods of calculation .....	23
C. Basic classifications for indicators .....	26
D. Basic data tables for indicators .....	38
IV. INDICATORS IN SPECIFIC FIELDS .....	45
A. Population composition and change .....	45
B. Human settlements and housing, and geographical distribution of population .....	47
C. Households and families, marital status, fertility .....	47
D. Health and health services; impairment and disability; nutrition ..	48
E. Learning and educational services .....	50
F. Economic activity and population not economically active .....	53
G. Socio-economic groups and social mobility .....	55
H. Income, consumption and wealth .....	56
I. Social security and welfare services .....	57

## CONTENTS (continued)

<u>Chapter</u>	<u>Page</u>
J. Leisure and culture; communications .....	57
K. Public order and safety .....	58
V. FUTURE DIRECTION OF WORK .....	76
 ANNEXES	
I. Illustrative formats for basic data tables for indicators, with notes on statistical concepts and classifications and applications in developing and least developed countries .....	86
II. Excerpts from international recommendations on statistical classifications in social and related economic fields .....	133
 LIST OF TABLES	
1. Illustrative use of classifications for social indicators .....	28
2. Illustrative series, classifications and data sources for social indicators .....	60

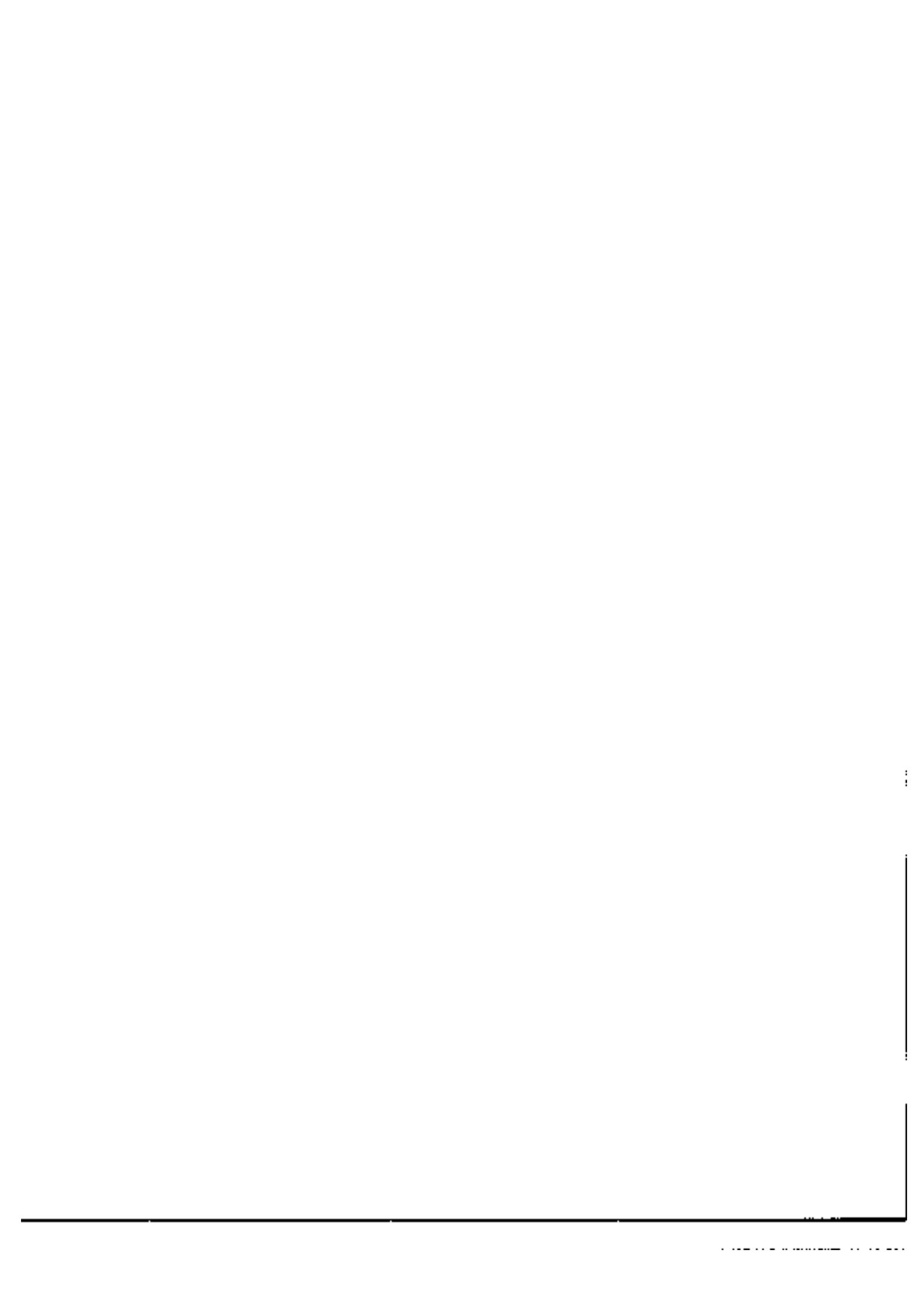
EXPLANATORY NOTES

Annual rates of growth or change refer to annual compound rates, unless otherwise stated.

A hyphen (-) between years, e.g., 1984-1985, indicates the full period involved, including the beginning and end year; a slash (/) indicates a financial year, school year or crop year, e.g., 1984/85.

Reference to "dollars" (\$) indicates United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million.



## INTRODUCTION

Preliminary guidelines on social indicators were accepted by the United Nations Statistical Commission at its nineteenth session, in 1976. At that time the Commission decided that those guidelines should be published and widely circulated.<sup>1/</sup> The Commission noted various purposes which social indicators might serve in planning, policy-making, research and general monitoring of social conditions, levels of living and living conditions, and that the series described in the preliminary guidelines were intended to serve as a useful inventory which might be consulted by interested producers and users of statistics in the process of identifying and defining indicators useful for any of a number of different purposes.<sup>2/</sup> On that basis, the preliminary guidelines were subsequently issued in 1978.<sup>3/</sup> They provided a review of national and international approaches, concepts and programmes on social indicators up to that time, set out a framework for selecting and compiling indicators based on the United Nations framework for the integration of social, demographic and related statistics (ESDS) and provided extensive illustrations of series and classifications for indicators based on that framework.<sup>4/</sup>

Although the United Nations preliminary guidelines reviewed a variety of concepts and purposes of social indicators then in use, they focused, in their detailed presentation, on the concept of social indicators to measure levels of living and social and economic factors considered to influence levels of living.<sup>5/</sup> In terms of statistical sources and methods, the guidelines emphasized the development and utilization of traditional basic data sources for social, demographic and related economic statistics for indicators, and harmonization of the underlying statistical concepts, classifications and definitions, rather than the development of parallel, ad hoc data sources and concepts. These principles have been followed by the Statistical Office of the United Nations Secretariat in the present Handbook.

Since the preliminary guidelines were issued, general progress reports on national and international work on indicators have been submitted to the Statistical Commission on a regular basis.<sup>6/</sup> These reports have documented a range of activities concerned with social indicators at national, regional and international levels.

At the international level, general methodological work and compilation of social indicators have been undertaken by several units of the United Nations system and by other international organizations since the preliminary guidelines were issued. In particular, there has been considerable interest in indicators dealing with special international activities and events, including the United Nations Decade for Women, the Decade of Disabled Persons, Health for All by the Year 2000 and the World Programme of Action for Agrarian Reform and Rural Development. Those programmes have contained a number of explicit and implicit directives for the development of indicators and hence have stimulated a considerable amount of work on indicators and on international reporting systems for indicators. For example, suggested lists of indicators for national and international use based on their work in this field have been issued by the Food and Agriculture Organization of the United Nations (FAO) for monitoring progress in agrarian reform and rural development, and the World Health Organization (WHO) for monitoring Health for All by the Year 2000.<sup>7/</sup> FAO and WHO have issued monitoring reports using their suggested lists of indicators, and the United Nations

Conference on Trade and Development (UNCTAD) periodically updates its basic social and economic indicators on the least developed countries in connection with the monitoring of the Substantial New Programme of Action for the 1980s for the Least Developed Countries.<sup>8/</sup>

Suggested lists of indicators have also been prepared for general national and international use by the Council for Mutual Economic Assistance (CMEA) and the Organization for Economic Co-operation and Development (OECD).<sup>9/</sup> OECD issued a compilation of indicators covering its member countries in 1986, and the European Communities has issued a compilation of indicators of the European Community approximately every three years since 1977.<sup>10/</sup>

The United Nations Research Institute for Social Development published a comprehensive methodological study on indicators for measurement and analysis of socio-economic development in 1985.<sup>11/</sup> and its Research Data Bank of Development Indicators in four volumes in 1976 and 1987. The United Nations University also published a general review of indicators methods in 1978 and, since 1973, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has sponsored a variety of activities at the international, regional and national levels on the application of socio-economic indicators to development planning and related issues.<sup>12/</sup> Since 1972 the Economic Commission for Europe (ECE) has convened working group meetings concerned with the integration of social, demographic and related economic statistics and with social indicators, and the Economic and Social Commission for Asia and the Pacific (ESCAP) and the Economic Commission for Africa (ECA) convened working groups which discussed social indicators in 1984.<sup>13/</sup>

At the national level, most developed countries issue compilations of social indicators on a regular basis, and many developing countries issue such reports on an ad hoc basis.<sup>14/</sup> The coverage and data sources for these compilations generally follow the same lines, but the types of publications vary substantially among countries. For example, the oldest continuous publication is Social Trends of the United Kingdom of Great Britain and Northern Ireland, which appears annually and includes several analytical articles separately from the tables. Données sociales, from France, is biennial and consists of combined analysis and data throughout. In Canada and Sweden, statistical studies specifically concerned with various aspects of levels of living are issued on an ad hoc basis but at the rate of five or more per year. Among the countries of Eastern Europe, an increasing number are issuing general social indicators reports following the recommendations of CMEA.

In the Asia and Pacific region, Australia, Japan and Indonesia issue social indicators publications at least every two years, but in Africa relatively few countries have actually produced indicators publications. In the Americas, there has been wide interest in general social indicators work; Brazil and Trinidad and Tobago are examples of countries which have produced compilations at least twice.

The present Handbook attempts to harmonize the experience and requirements generated in the last decade by identifying more explicitly than in the United Nations preliminary guidelines data and indicators suitable and feasible for wide national and international use. The basic premises of the preliminary guidelines are retained: orientation to levels of living and circumstances influencing them, use of the framework for integration for the organization of the subject-matter and close links between development of basic data and indicators. However, because of

the experience gained in national, regional and international work on social indicators in the 10 years since the preliminary guidelines were issued, the Handbook is able to extend and expand upon the guidelines in terms of relevance to current policy concerns and the practical guidance provided. Thus, the Handbook can in many senses be seen as superseding the preliminary guidelines.

The Handbook itself is divided into five chapters. The first is concerned with the uses and objectives of the Handbook and the types of indicators which it covers. The second summarizes the scope of social indicators covered in terms of subject-matter fields and topics and also notes some topics and issues which are not covered. Chapter III reviews methods for compilation of indicators and in particular introduces an integrated framework of basic data tables and classifications for indicators.

Chapter IV discusses and illustrates issues and classifications for indicators in each field and chapter V concludes with a review of major issues in the future direction of work on social indicators. Illustrative formats for basic data tables, which are discussed in chapter III and which are the source for the majority of series presented and discussed in chapter IV, are presented in a separate section following chapter V. Each illustrative format is accompanied by technical notes on the statistical concepts and classifications used in it and a summary analysis of suitable applications in countries at different stages of development. The annex at the end of the Handbook provides excerpts from international recommendations on statistical classifications in social and related economic fields which are of particular significance for development of social indicators. This allows the user to easily refer to the greater detail of the original classification when preparing abbreviated classifications for indicators, such as those used in the text or in the illustrative formats.

## I. USES AND OBJECTIVES OF THE HANDBOOK

The principal objectives of the present Handbook are to present a conceptual and practical framework which countries and international organizations can use in developing social indicators. On the conceptual side the major issues addressed are the purposes of indicators and the scope and organization of subject-matter. On the practical side, the major issues addressed are: What are appropriate and available sources of data? and What indicators can efficiently be compiled from these and how? Naturally, these issues are closely interrelated in many ways.

Two overriding concerns which affect every aspect of work on indicators are the relevance and suitability of indicators ultimately produced to specific uses and interpretations, and practicality. Resolving these issues calls for intensive dialogue at every stage of work on indicators among those who produce such indicators and the basic statistics that underly them, and those who use them. In order to work together, producers and users must establish a common ground between the technical language and experience of the statistician, the often very different language and experience of specialists in substantive fields and the proverbial common sense and everyday language of the public and of policy generalists, such as legislators and other high-level policy-makers without specialized statistical experience.

Some general types of potential users and uses of the Handbook are discussed in the first section below. The second section reviews work on indicators for women and other special population groups, such as disabled persons, youth, children and the elderly, which are now among the most active areas of interest in indicators at both national and international levels. The concluding section reviews work on indicators relative to general issues of socio-economic development and living conditions in general.

### A. Users and uses of the Handbook

The Handbook is aimed at both producers and users of social indicators with varying degrees of specialization and expertise in social statistics. The following specific needs may be mentioned.

First, in the majority of developed countries, indicators of many kinds are already produced on a regular or ad hoc basis. In these countries methods of organization, compilation and dissemination are already reasonably well-established and understood. However, many potential users of indicators may still lack the training and information needed to elicit indicators for specific purposes, to interpret them accurately and to use them effectively. Users and producers may also lack a common framework and vocabulary for indicators as a basis for co-operation and communication. Such a framework and vocabulary must reconcile the technical terminology of statistical concepts and classifications and of data collection and tabulation programmes with the policy interests and lay terminology of users. The provision of such a common framework and vocabulary is one objective of the Handbook.

Second, another potential use of the Handbook in both developed and developing countries with well-developed statistical services is to provide a common framework for indicators where producers and users of indicators at the national level wish

to develop international comparisons. A central feature of the Handbook is to illustrate appropriate indicators in all the main social fields related to levels of living and based on existing international statistical guidelines and data which are, in principle, relatively readily available.

The issue of international comparability points towards another group of users and users - international organizations. As noted in the Introduction, international programmes of various kinds are increasingly calling for the compilation of indicators on the basis of specific intergovernmental mandates. Furthermore, these programmes are strongly oriented towards multidisciplinary issues concerning levels of living and socio-economic development and thus call for intensified co-ordination in statistics among the international organizations. The present Handbook attempts to consolidate international statistical experience and indicators requirements within a single framework so that international organizations can avoid overlapping or inconsistent data requests to countries, use data which are already available at the international level effectively and develop new data requests where necessary in a practical and co-ordinated fashion.

Fourth, many of the most active users of indicators at present are particularly interested in special population groups. The Handbook has been developed taking into account the interest in indicators on women, children, youth, elderly, disabled persons and the rural population. Further elaboration, in varying degrees, of methods and indicators for these groups and for others which may arise in international discussions is, of course, essential and in some cases already well advanced. The Handbook provides a detailed conceptual and practical framework for use as a point of departure for further work by users and producers of indicators on special population groups at national and international levels.

Finally, developing country Governments are strongly committed in their policy and programme objectives to improving levels of living, social development and equity in their countries. As capabilities for developing appropriate indicators are not yet well developed in most of these countries, the present Handbook is intended to provide examples of feasible and sound methods for doing so. This objective is discussed in section C below.

#### B. Development of indicators on women and special population groups

The development of statistics and indicators on population groups that are considered to be of special relevance for policy planning has received high priority in many countries and regions and at the international level. That interest has provided considerable impetus to a range of activities on statistics and indicators concerned with these groups. These include:

(a) Critical review and refinement at national and international levels of concepts and methods used in collecting statistics and how they affect these groups, and preparation of technical studies on these issues;

(b) Implementation in countries of data collection activities giving special attention to data on these groups;

(c) Compilation of statistics and indicators on these groups at national, regional and international levels. For example, the United Nations has prepared special compilations and microcomputer statistical data bases on women, youth and

disabled persons, as discussed below, and the United Nations Children's Fund (UNICEF) issues statistics and indicators on children in its annual publication State of the World's Children;

(d) Training in collection, compilation and use of those statistics and indicators.

The principal groups on which statistical work has been concentrated at the international level have been women, beginning with the World Conference on Women in 1975, disabled persons, beginning with the International Year of Disabled Persons in 1982, and children, by UNICEF. Work to date in the United Nations Secretariat concerning women and disabled persons is reviewed below. There has also been work on the development of statistics and indicators on youth in connection with International Youth Year in 1985.<sup>15/</sup> Work on the elderly as a follow-up to the World Assembly on Aging in 1982 and the International Plan of Action on Aging is planned in 1988-1989.

Because the present Handbook is organized in terms of the United Nations framework for the integration of social, demographic and related statistics, it provides a useful and relatively comprehensive point of departure for the development of statistics and indicators on special population groups. The programmes of the United Nations to adapt the fields, series and indicators illustrated here for the development of statistics and indicators on women and on disabled persons are reviewed below. They provide good examples of how the general framework and classifications can be adapted, with appropriate new detail and careful review and development of relevant concepts, definitions and topics, to more specialised requirements.

#### 1. Statistics and indicators on the situation of women

The development of statistics and indicators specifically concerned with the situation of women was first recommended at the international level in the World Plan of Action for the Implementation of the Objectives of the International Women's Year adopted by the World Conference of the International Women's Year in 1975.<sup>16/</sup> That recommendation was followed by Economic and Social Council resolutions 2061 (LXIII) of 12 May 1977, entitled "Improvement of the data base for measuring the implementation of the World Plan of Action for the Implementation of the Objectives of the International Women's Year", and 1981/11 of 6 May 1981, entitled "Social Indicators applicable to studies on women". It was reaffirmed and elaborated in the Programme of Action for the Second Half of the United Nations Decade for Women, adopted by the World Conference of the United Nations Decade for Women: Equality, Development and Peace, in 1980<sup>17/</sup> and in the Nairobi Forward-looking Strategies for the Advancement of Women, adopted in 1985 by the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development and Peace.<sup>18/</sup>

Further to those recommendations, a joint programme of work on improving statistics and indicators on the situation of women was initiated in 1982 by the International Research and Training Institute for the Advancement of Women (INSTRAW) and the Statistical Office of the United Nations Secretariat, in co-operation with the Centre for Social Development and Humanitarian Affairs of the United Nations. An expert group meeting on that subject was convened by the Secretariat and the Institute in 1983.<sup>19/</sup> The expert group reviewed two technical

reports which had been prepared for the Secretariat by consultants and were then revised to take account of comments made at the meeting and published. The first, entitled Compiling Social Indicators on the Situation of Women, 20/ is intended as a practical guide for compiling statistics and indicators on the situation of women using existing national statistical sources and concepts. The second, entitled Improving Concepts and Methods for Statistics and Indicators on the Situation of Women, 21/ is an analysis of conceptual and methodological approaches to improving the quality and relevance of data pertaining to the situation of women.

Further work on statistical concepts and methods has been undertaken by INSTAT and the Statistical Office concerning measurement and valuation of women's participation in non-monetary productive activities and the use of household surveys to collect statistics on the situation of women. 22/

Concerning international compilation and dissemination of indicators on women, a substantial quantity of data is currently being routinely collected in the international statistical services and supplemented, in many cases, with standardized international estimates and projections. New technologies in data base management and dissemination and the rapid spread of microcomputers have now made it feasible to compile these data in one source, disseminate them cheaply and quickly on diskettes to users and prepare user-oriented software and documentation for easy reference, analysis, table-generation and other similar uses. A special project with these objectives was established in the Secretariat in 1984 to develop a user-oriented data base of statistics and indicators on women on microcomputer. The first complete and documented version of this data base has been issued in the summer of 1988. 23/

One early use of this data base was the preparation of a document entitled "Compilation of selected statistics and indicators on the status of women" (A/CONF.116/10) for the World Conference held in Nairobi and an accompanying statistical wall chart. 24/ Those data, and the accompanying technical notes on sources and concepts, provided a framework and point of reference for the preparation of basic analytical documents for the Conference itself and for organizing follow-up activities in data collection, research and implementation. The series in the compilation and chart are intended to encourage more intensive research and analysis using the data base. A substantially revised and extended version of the compilation is to be issued in the spring of 1988.

The compilation and chart were prepared with the following special considerations in mind:

- (a) There should be no new statistical reporting requirements placed on countries;
- (b) Series compiled by international agencies should be widely distributed to ensure maximum effective use of available data and consistency of the series cited by various users;
- (c) Wherever possible, estimates and projections based on standard concepts and definitions should be used, rather than unadjusted series;
- (d) Notes on the statistical concepts and definitions used in the series and on the sources and limitation of the data should accompany all series;

(e) Wherever possible, rural and urban data should be distinguished in order to provide some minimal disaggregation of national series.

## 2. World Programme of Action concerning Disabled Persons 25/ (United Nations Decade of Disabled Persons 1983-1992)

The Centre for Social Development and Humanitarian Affairs is the focal point in the United Nations Secretariat for implementation of the World Programme of Action concerning Disabled Persons. The World Programme of Action emphasizes in particular the importance of developing statistics and indicators on disabled persons using national population censuses and household surveys. In 1984 the Statistical Office of the United Nations Secretariat, with the assistance of consultants, prepared two working papers on this subject for review by an expert group.<sup>26/</sup> Following the expert group meeting, the papers were revised to take into account comments expressed at the meeting and published as technical reports. The first, Development of Statistical Concepts and Methods on Disability for Household Surveys, focuses on conceptual and methodological issues in collecting reliable and useful data on disability through household surveys.<sup>27/</sup> The second, Development of Statistics of Disabled Persons: Case Studies, examines actual data collected on disabled persons in five countries.<sup>28/</sup>

New work of the United Nations Secretariat in the development of statistics on disabled persons includes review of statistical concepts and methods for use in surveys and censuses, and for indicators, development of an international microcomputer statistical data base on disabled persons and technical co-operation. From information obtained by the Secretariat in preparing the data base, it appears that a large number of developing and developed countries have collected or are planning to collect statistics on disabled persons in censuses and surveys.<sup>29/</sup> In 1987, the Statistical Office completed the first version of an international disability statistics data base for use on microcomputers. This data base comprises detailed statistics on disabled persons from censuses and surveys in 55 countries and areas between 1975 and 1986 and is to be disseminated on diskettes in the second quarter of 1988, accompanied by a technical manual.<sup>30/</sup>

## C. Monitoring levels of living and socio-economic development

The monitoring of levels of living and socio-economic development may be considered from three different perspectives: the aggregate national level, viewed from the national or international point of view; the sub-national level, such as the community level or other level of geographical disaggregation; and the project or programme-oriented monitoring and evaluation perspective within countries.

In terms of the aggregate national perspective, many Governments and intergovernmental bodies have given very high priority to the selection and compilation of indicators of levels of living and related socio-economic conditions and of social and economic development. In developing countries, this work has proceeded by establishing general objectives or goals of socio-economic development and ensuring that participation in and benefits from this development are widely distributed. In integrated socio-economic development, economic and social policies and objectives are considered as inseparable. In fact, it is argued that for development to proceed effectively, wide participation in development and in the distribution of benefits are not only desirable objectives but prerequisites. Otherwise development will either falter or be so highly inequitable as to be

unmissable. Thus, as noted in the introduction, extensive programmes for monitoring various aspects of trends and levels of socio-economic development and well-being using indicators have been developed by FAO, in connection with the Programme of Action for Agrarian Reform and Rural Development, adopted in 1979, and by WHO in connection with its programme Health for All by the Year 2000. These programmes are described in separate sections below.

Another example of the use of indicators to monitor various aspects of socio-economic development and its impact on the population is provided by General Assembly resolution 40/179 entitled "Patterns of consumption: quantitative aspects of development". In it, the General Assembly "considers that an accurate assessment of the advances in living standards requires a reliable measuring instrument consisting of a set of indicators related to living conditions, employment and the circumstances underlying them, and the improvement of basic national statistical programmes and capabilities related to food, clothing, housing, education, health care and necessary social services," and "encourages, in this regard, countries to undertake efforts to collect, tabulate and regularly publish accurate and updated data on consumption and living standards for different population groups, bearing in mind the need for more international attention to be given to the qualitative aspects of development".

In responding to this resolution, the Statistical Commission at its twenty-fourth session, "Drew the attention of the Economic and Social Council to the list of fields, topics and selected illustrative series for indicators to be issued in the Handbook on Social Indicators as an indicative basis for selecting and compiling indicators in many of the specific fields identified in General Assembly resolution 40/179, with suitable adaptation to specific national and international requirements".<sup>31/</sup>

National experiences and priorities concerning sub-national indicators differ widely, but in nearly all countries it appears that some significant work has been done on regional (within-country) indicators and comparisons, for example in connection with the distribution of national government resources. However, no systematic international work on that application of indicators has been undertaken.

Another area in which there has been considerable national and international interest is the potential use of social indicators and statistics in programme and project planning, monitoring and evaluation. For example, internationally-supported projects often entail substantial expenditures for the compilation and analysis of data in impact areas at the planning, implementation and evaluation stages. The extent to which data and indicators from the national statistical services are or could be used has not been systematically assessed nor has the methodology been analysed from the point of view of linking this activity to ongoing national statistical development. Some of the methodological difficulties were noted in the preliminary guidelines on social indicators, and a United Nations task force has issued a special study on monitoring and evaluation in rural development.<sup>32/</sup> Given the considerable demand for and investment currently being made in statistics for planning and evaluation, the Statistical Office of the United Nations Secretariat is co-operating with the United Nations Development Fund for Women in the preparation of a technical report on the potential role of indicators in project and programme planning, monitoring and evaluation activities focusing on issues of special concern to women.

## 1. Programme of Action for Agrarian Reform and Rural Development

The Programme of Action adopted by the World Conference on Agrarian Reform and Rural Development (WCARRD) <sup>33/</sup> gave new impetus and direction to the work of the Food and Agriculture Organization of the United Nations on socio-economic indicators. The Programme of Action recommended that countries develop appropriate indicators pertaining to the progress of agrarian reform and rural development, establish benchmarks relating to the indicators, and report on changes at every other biennial conference of FAO.

The first steps in this programme consisted of the preparation in 1980 of a draft list of socio-economic indicators. These were submitted to United Nations agencies and other international organizations for comments and then tested in 26 country pilot studies conducted from 1981 to 1983, and the results discussed at four regional expert consultations, one in each developing region, in 1982. <sup>34/</sup> Provisional guidelines on some recommended indicators and the common formats for use by countries in reporting to the 1983 and 1987 FAO Conferences were prepared, <sup>35/</sup> and progress reports on the WCARRD Programme of Action were submitted to the general conference of FAO in 1983 and 1987, also incorporating the indicators which had been compiled. <sup>36/</sup> On the basis of that experience, FAO is preparing guidelines on socio-economic indicators for the monitoring and evaluation of agrarian reform and rural development. These guidelines will be distributed to countries for their comments and used in developing national socio-economic indicators programmes and improving related statistics through censuses and surveys.

## 2. Health for All by the Year 2000

The adoption in 1981 of the Global Strategy for Health for All by the Year 2000 by the World Health Assembly marked a radical change in the orientation of health development. The Strategy was aimed at attaining the goal for all people in the world to lead a socially and economically productive life, by redirecting national health systems based on the primary health care approach.

The Global Strategy contains a list of indicators which the World Health Assembly approved for use in the global monitoring and evaluation of the Strategy. <sup>37/</sup> The indicators selected comprise general social and economic indicators and indicators on health policy, provision of health care and health status. Socio-economic indicators outside the health sector were included, because health development as defined in the Strategy is multisectoral, even though these indicators are usually generated in sectors outside the jurisdiction of the ministries of health. Some of the WHO regional committees have also adopted additional indicators for use in regional monitoring and evaluation, besides the global indicators. The governing bodies of WHO have also encouraged countries to develop and use national indicators suited to their specific situation and needs. In order to help in that national task, a technical report on the development of indicators was issued by WHO in 1981. <sup>38/</sup>

A plan of action adopted by the World Health Assembly in 1982 for implementing the Global Strategy for Health for All by the Year 2000 included a timetable for periodic monitoring and evaluation. Pursuant to that timetable, countries presented their first progress reports in 1983, in which the implementation of their strategies was monitored using a common framework established by WHO. <sup>39/</sup> In 1985 using a revised common framework countries undertook their first evaluation.

and submitted national reports. Based on these national reports regional reports were prepared and examined by WHO regional committees, and finally global reports on monitoring and evaluation were reviewed by the World Health Assembly in 1984 and 1986. The results of the 1985 evaluation were published in 1987 in a report in seven volumes entitled Evaluation of the Strategy for Health for All by the Year 2000... Seventh Report on the World Health Situation, 39/ and the available indicators were also issued in a separate document. At the WHO secretariat a data base of global indicators has been created which contains the data provided by countries in these reports.

Those first progress reports clearly revealed the weaknesses in national mechanisms for generating and using information and indicated the urgent need for strengthening national capacities in that regard. The information exchange between sectors within countries has been found to be especially insufficient. Countries prepared their second monitoring reports in 1988. Regional and global monitoring reports are being consolidated on this basis and will be reviewed by the regional committees in 1989 and the World Health Assembly in 1989, respectively.

### 3. Other development strategies and events and general conclusions

Overall at the international level, the integrated approach to indicators set out in the United Nations preliminary guidelines has been successfully followed in the work on statistics and indicators on women and on disabled persons, as discussed above. In these areas, intended users have played major roles in stimulating interest, critically analysing concepts and methods and mobilizing resources for statistical work at the national, regional and international levels. Work in connection with the Strategy for Health for All by the Year 2000 and the Programme of Action for Agrarian Reform and Rural Development followed a different approach, where indicators were linked more directly to monitoring general policy objectives established by intergovernmental bodies. The direct translation of those statements of policy objectives into practical statistical requirements has been a difficult process, and meeting these requirements in statistical work has proved very difficult in the short term.

### 4. Selected national experience

At the national level, most developed countries now issue compilations of social indicators on a regular basis, and many developing countries issue such reports on an ad hoc basis. 40/ The coverage and data sources for these compilations generally follow similar lines but the type of publication varies among countries. For example, the oldest continuous publication is Social Trends of the United Kingdom, which appears annually and includes analytical discussion and articles in addition to the tables. Données sociales, from France, is biennial and includes considerable analysis. In Canada and Sweden, statistical studies specifically concerned with various aspects of levels of living are issued in the form of a regular publication series, at the rate of several per year. 41/ These reports are largely based in both countries on household survey programmes geared to the compilation of integrated social statistics and indicators on social conditions and levels of living. In New Zealand the Planning Council has formed the "Social Monitoring Group" to prepare and publish a series of reports on current and emerging trends relevant to social development. 42/ In Eastern Europe, an increasing number of countries are issuing general social indicators reports following the recommendations of CMEA.

In recent years, in central Europe, extensive and innovative new work on social indicators has been undertaken in Austria, Czechoslovakia and the Federal Republic of Germany, including the publication of a comprehensive social statistics report in Austria, bilateral social indicators comparisons between Austria and Czechoslovakia and the analysis of the theoretical underpinning of welfare indicators in the Federal Republic of Germany.<sup>43/</sup> Bilateral comparisons between Austria and Czechoslovakia include indicators in the fields of population by age and sex, economic and other activity, fertility, marital status, households and families, mortality, physicians and hospitals, educational enrolment and attainment, culture, time-use, consumption expenditures, household equipment and dwellings.

In the Asia and Pacific region, Australia, Japan and Indonesia issue social publications at least every two years, but in Africa relatively few countries produce indicators publications on a regular basis. In the Americas, there has been wide interest in general social indicators work, and Brazil and Trinidad and Tobago are examples of countries which have produced compilations at least twice.

Many developing countries are also concerned with the measurement of the impact of economic adjustment programmes on their social well-being. For example, The Social Well-Being Programme: A Programme for Social Development is a comprehensive social report and plan for Jamaica covering education, health, housing, water supply and sewerage, social welfare and benefits and includes a programme for systematic monitoring and evaluation of social well-being. The report states that the ultimate goal of the Government's socio-economic policies is to improve the living standards of households. An effective monitoring system must be able to show to what extent the Government's policies have been successful in providing employment and social services, and it must also allow for a general evaluation of the population's level of well-being. A monitoring system is therefore needed to provide the base line information necessary to set priorities for socio-economic policy and feedback information on the effectiveness of such policies, thus allowing for corrective action where needed during the course of the programme.<sup>44/</sup>

## II. SCOPE AND COVERAGE OF INDICATORS AND LIST OF FIELDS AND TOPICS IN THE HANDBOOK

The subject-matter fields and topics covered by the Handbook are listed below. They are based on the United Nations work on the framework for integration of social, demographic and related statistics and take into account the findings of a number of expert groups, regional meetings and international recommendations on the framework or concerning fields and topics within the framework as cited in the introduction. They closely follow the organization of fields and topics in the preliminary guidelines on social indicators.

The fields and topics listed are intended to be responsive to social issues and problems as policy analysts and Governments perceive them. They are thus similar to the original "list of social concerns" of OECD, which is oriented to present or potential concerns of Governments and, in principle, to fundamental rather than instrumental aspects of well-being.<sup>45/</sup> and to the subsystems of the CMEA System of Basic Indicators for Social Statistics.<sup>46/</sup> The OECD list of concerns and the CMEA list of subsystems provide valuable indications from Governments of the concerns that they perceive to be sufficiently important to merit the selection and definition of indicators. Other general programmes on social indicators of the Statistical Office of the United Nations Secretariat and the European Communities cover essentially the same major components of social and economic welfare, or levels of living. Omitted in all cases are such topics as freedom and social unrest; included in the OECD list only are social concerns on social and political participation. The OECD list does not include any social concerns about the size and distribution of the population or about the family per se. Concerns about the natural environment are not included in the United Nations programme because they are being dealt with separately in work on statistics of the environment.<sup>47/</sup> CMEA and the European Communities programmes have limited coverage of housing and human settlements and none of public order and safety. Also not included in the United Nations programme are statistics on individuals' aspirations and perceptions of well-being nor on social institutions and structures as these statistics have not been studied in international statistical programmes.<sup>48/</sup>

The relatively detailed study of the determinants of social changes including but not limited to levels of living is an example of an approach which is research-oriented and based on more detailed analysis of social statistics rather than social indicators. While social indicators are usually defined in this approach as key, strategic or summary measures of social changes, the emphasis is on studying the full body of underlying data rather than on the construction and presentation of indicators per se. This approach to social indicators is not only the broadest in scope but also the most theoretical and analytical in concept. Emphasis is put on calculating parameters based on theories of social structure, behaviour and processes and on compiling data for social analysis, projections and forecasting and social engineering. Attention is devoted to use of the data in devising explanatory, causal, forecasting and simulation models. It is considered necessary to base the statistical series on analytical and theoretical considerations in order to compile coherent data for the effective monitoring, assessment and diagnosis of social conditions and resolution of social problems. Numerous examples of an analytical approach based on a matrix model of human stocks and flows are given in the United Nations technical report, Towards a System of Social and Demographic Statistics.<sup>49/</sup> Development and research on social models can substantially contribute to the development and selection of better measures

for indicators. In turn, the compilation and standardization of a few salient indicators can contribute to the construction of models bearing closely on key issues and trends of concern to the public and to policy-makers.

As in the previous guidelines on social indicators, the present Handbook provides a basically descriptive treatment of the broadly defined fields of concern about the states and trends of welfare or levels of living and conditions affecting them. Focusing attention on individuals', families' and households' welfare and the underlying conditions and circumstances, in the long run as well as the short run, allows for wide and flexible coverage. Another major aspect of the scope of the United Nations indicators is the inclusion of series on the availability, use and efficiency of government and other social services. These types of series represent means for maintaining and improving states of welfare, that is, inputs into these states rather than measures of the states themselves. They are included because they are important components of government welfare policies and programmes and because the social indicators addressed to these concerns furnish valuable data for understanding and interpreting the observed trends in living conditions.

Annex

LIST OF FIELDS AND TOPICS IN THE HANDBOOK

A. Population composition and change a/

1. Size and structure of the population by age and sex
2. Population growth and its components - births, deaths and international migration
3. Population growth by age group and sex
4. Population by national or ethnic group

B. Human settlements and housing and geographical distribution of population a/

1. Geographical distribution of population and changes in distribution
2. Land use
3. Stock of housing and additions to stock
4. Tenure and expenditure on housing
5. Household water and sanitation
6. Household energy consumption
7. Household transportation
8. Climate

C. Households and families; marital status; fertility

1. Household size and composition
2. Marital status; marriage and divorce
3. Fertility

D. Health and health services; impairment and disability; nutrition

1. Health status - mortality and morbidity
2. Impairment and disability
3. Health services and resources

4. Nutrition

5. Consumption of alcohol and tobacco

E. Learning and educational services

1. Educational attainment and illiteracy

2. Enrolment and retention

3. Adult education and training

4. Educational personnel and expenditures

F. Economic activity and population not economically active

1. Labour force participation and population not economically active

2. Employment and unemployment

3. Employment compensation

4. Working conditions and training

G. Socio-economic groups and social mobility

1. Socio-economic groups and changes over time

2. Intra and inter-generational mobility

H. Income, consumption and wealth

1. Level, growth and composition of household income

2. Level, growth and composition of consumption

3. Distribution of income and consumption

4. Level and distribution of wealth

I. Social security and welfare services

1. Scope of protection against loss of income

2. Use and magnitude of protection against loss of income

J. Leisure, culture and communications b/

1. Use of leisure
2. Leisure and cultural activities, facilities and expenditures
3. Communications

K. Time use

L. Public order and safety

1. Frequency and severity of offences and victimization
2. Characteristics and treatment of offenders
3. Criminal justice institutions and personnel

M. Other fields to be considered in further work c/

1. Natural environment
2. Social relationships
3. Political activities

Notes

a/ The scope of this field has been expanded to take into account recent work in the Statistical Office of the United Nations Secretariat and the United Nations Centre for Human Settlements on development of statistics on human settlements and geographical distribution of population.

b/ Communications has been added to this field to reflect recent work of UNRASCO.

c/ Fields for further work recommended by the Informal Meeting on Social Indicators, convened by the Conference of European Statisticians (Stockholm, 9-11 April 1966). The conclusions of the meeting are contained in document CES/569.

### III. METHODS OF COMPIRATION

The present Handbook considers the development of social indicators as basically a five-step process. These steps are:

- (a) Establishing the subject matter framework;
- (b) Establishing the statistical framework;
- (c) Preliminary selection and definition of indicators;
- (d) Compilation of statistics for indicators;
- (e) Final selection and calculation of indicators.

The development of the subject-matter framework for the United Nations preliminary guidelines on indicators has been discussed in chapter II above. In elaborating the framework to achieve greater specificity in the identification and definition of appropriate series and indicators, two important principles were adopted in the United Nations programme to guide the interrelation between basic statistics and indicators. First, no modifications of existing international statistical guidelines and recommendations concerning concepts, classifications and definitions should be introduced for indicators unless they were also introduced in the ongoing development of basic statistics, and second, indicators should be developed as a product of basic statistics, not independently. Thus the preliminary guidelines and a companion publication, Studies in Integration of Social Statistics, 50/ provide a considerable amount of information on basic statistical concepts, classifications and definitions which may be used for indicators.

This approach has been pursued in the work of the United Nations Secretariat on methodologies for indicators for women and special population groups, described above, and has been relatively successful and useful in drawing attention and effort to the possibilities of utilizing existing data for indicators on women and special groups in parallel with the development of better data. In particular, interested users of indicators seldom have a technical understanding of how policy issues with which they are intimately concerned can be translated into statistical concepts. They are thus often unaware of how existing data can be effectively exploited to shed light on issues of interest to them and lack understanding of the practical problems in modifying underlying statistical concepts and definitions and introducing new ones.

At both the national and international levels, work on social indicators must draw on a very large volume of basic data, and these basic data are complex, detailed and heterogeneous. Thus the preparation of indicators generally involves undertaking a great deal of work to find and analyse sources and extract data from them on the one hand and to determine with users exactly what indicators are wanted on the other. Typically, bringing together and reconciling these two processes has been a long and difficult process and, while the utilization of existing data has steadily improved in the past decade, often precisely because of interest in indicators, a great deal remains to be done to effectively use available data for indicators. In particular, the lack of a specific framework for indicators has been a considerable hindrance. For example, programmes on social indicators have

usually concentrated on proposing a list of specific indicators for implementation for one or another specific purpose. Inevitably, such lists become either so long as to lose any distinction from general social statistics, and hence any rationale for policy applications, or are so limited to specific and narrow issues as to lack wide usefulness and acceptance. The present Handbook proposes the development and use of basic data tables for indicators as a way of standardizing the basic statistical framework without, on the one hand, foreclosing possibilities of developing a wide array of indicators to meet different needs, as lists of recommended indicators do by their inevitable narrowness and specificity, or, on the other, being so general as to comprise a virtual catalogue of basic data.

The rationale for the development of the basic data tables is thus as follows:

(a) A large proportion of social indicators are based on the classification and cross-classification of the population by a relatively small number of characteristics;

(b) If one limits oneself to the most crucial of these classifications and abbreviates the classifications for the purpose of indicators as much as possible, a manageable list of basic tabulations and cross-tabulations can be prepared which not only covers most of the basic fields of indicators but is sufficiently consistent to allow various internal comparisons and linkages and the possibility of nearly endless variation in selection of numerators and denominators for indicators to suit specific interests.

National and international experience with indicators has shown that most of them are based on a relatively straightforward body of basic data. However, in order to prepare indicators, these basic data must be manipulated and cross-tabulated in many different ways. While this work is often quite complex because of problems of achieving consistency within and among different sources, a basic core of data can be identified. The idea of basic data tables is to identify and fully specify these interrelated core data and to present them with all of the marginal totals such that a nearly unlimited number of indicators can be calculated from them. The central objective is to allow a producer or user of indicators to use the basic tables either as outlines or filled in as tools for selecting and calculating indicators, in each case oriented to his own particular set of needs and interests.

The sections of this chapter describe practical steps in the development of a social indicators programme, including the selection of basic statistical classifications and the preparation of basic data tables. Illustrative formats for basic data tables for indicators are presented separately following chapter V, and illustrative series and classifications for the full range of indicators discussed in the present Handbook, many of which are not included in the basic tables, are described for each field in chapter IV. It must be emphasized from the outset that all of these illustrations are only tools for developing indicators which countries and international organizations should use in the light of their particular requirements. The illustrative formats and series are not intended as outlines of publishable tables or as lists of recommended indicators. It should also be noted that the illustrative formats do not strictly conform to the subject-matter organization of the indicators framework. They are rather one step in moving from the wide range, heterogeneity and compartmentalization of basic data likely to be available to the specific, interrelated, and multidisciplinary policy and programme concerns to which indicators should be addressed.

#### A. Sources of data and their co-ordination

The series and classifications for indicators in chapter IV and the illustrative formats for basic data tables for indicators following chapter V note the data sources that would normally be used in each case. Some principal aspects of the main sources and of national experience in use of these sources for indicators are reviewed below.

##### 1. Population, housing and agricultural censuses

In most countries the most comprehensive sources of social data are population and housing censuses supplemented, where feasible in predominantly rural countries, by agricultural censuses. The importance of population and housing censuses lies in their universal coverage, the wide range of data collected, the well-tested and well-documented nature of the classifications used and the wide range of possibilities for cross-classification geographically and according to selected population characteristics. Their disadvantages lie in the infrequency of data collection, a usual delay of several years in availability of the detailed data and the costs and difficulties of manipulating such a large body of data, which impose constraints on the numbers of tabulations and cross classifications that can be produced. Nevertheless, for most countries, these censuses provide the ideal starting point for meeting national social data requirements, experimentation in the construction of indicators and development of basic reference data against which other social data can be compared and adjusted. 51/

Some of the difficulties in working with census data can be alleviated by the use of within-census or inter census samples for the collection of detailed data covering the numerous characteristics desirable for the classifications for social indicators. For those purposes it is necessary to analyse the data requirements of the desired social indicators at an early stage in the census planning process. 52/

##### 2. Household sample surveys

In order to provide sources of social data that are both more frequent and more comprehensive than censuses, many countries have developed extensive household sample survey capabilities. India and the United Kingdom are examples of the many countries which now carry out general household surveys annually; many countries use household surveys on a quarterly or even monthly basis, mainly for employment data but usually covering certain other fields such as income and expenditure. However, in spite of the much greater flexibility of a survey programme, it is always necessary to balance the interest of analysts in comprehensive social data and the interest of planners, policy-makers and the public in timely series. Co-ordination and integration of survey data with data from other sources also require special efforts. The results of large surveys are difficult to process and slow to appear, while the results of small ones, which are designed for rapid processing, cover only a very few major series or segments of the population. A comprehensive review of household survey planning, operations and subject-matter is provided by the United Nations Handbook of Household Surveys (revised edition). 53/

While household surveys of all kinds can be valuable sources of data for social indicators, two types of surveys reported by countries are of special interest for indicators. These are in-depth specialized surveys that deal in

detail with a single field of concern and comprehensive level of living surveys. Specialized sample surveys of persons may also be undertaken through institutions, such as schools, rather than through households. The annual health survey in the United States is an example of a specialized survey in an important field for social indicators. The Swedish level of living survey, which is quinquennial, appears to be the most comprehensive example of a level-of-living survey approach undertaken by a national authority. In this case, while the data can only supplement and not replace the basic population data from censuses and other population and related economic data from other surveys and administrative sources, the level-of-living survey has been useful in providing a wide range of data for analysing living conditions and welfare trends in Sweden. A similar approach has been developed for the Living Standards Measurement Study of the World Bank.<sup>51/</sup>

### 3. Civil registration and other registers

Basic registration data on births and deaths, where available, are a fundamental data source for social indicators, as discussed in the section of chapter IV dealing with health.

A few countries compile other series on population characteristics from registers to supplement or in lieu of census and survey data, but this approach is confined to a relatively few developed countries and raises many technical and other problems. Thus, its discussion is beyond the scope of the present study.

### 4. Administrative data

A wide range of social and related economic data is collected by government administration units as part of normal operating procedures to monitor and assess their activities. These data are a rich store of information for developing an integrated framework of social and demographic statistics and constructing social indicators. However, the co-ordination of these statistics into a framework for integration raises many special problems in the application of common classifications, concepts and definitions across various fields and sources of statistics. Problems of timeliness and confidentiality are also frequently encountered. Thus these data are useful for many specific applications in indicators but should be carefully evaluated and adjusted to fit within the overall indicators framework.

### 5. Non-governmental administrative data

In principle, the data stores of non-governmental firms, such as private insurance companies, will also be of use in constructing social indicators. In many cases such data may be essential to achieve the range of coverage desired for social indicators. Usually, however, collection of such data in the social sphere is on an ad hoc basis, lacking in established systematic procedures or incomplete. In addition, it is normally even more difficult in the case of non-governmental firms than in the case of government agencies to align the concepts and classifications used to those adopted for official work.

#### 5. National experience in data sources for indicators

In most developed and many developing countries, difficulties in the compilation of social indicators stem less from any lack of basic data using the sources described above than from their heterogeneity.

Various strategies and techniques have been used to try to improve the scope and compatibility of sources and their data outputs for social indicators, including: (a) co-ordination and harmonization of statistical concepts, classifications and definitions; (b) use of co-ordinated or integrated household surveys; (c) increased capabilities for special ad hoc tabulations, analyses and estimates, which contribute to the preparation of compendiums of social statistics and indicators; and (d) "socio-economic accounts" in various forms. Of those approaches, the use of integrated household surveys to develop integrated social and economic statistics on the population has been among the most frequent in-depth approach taken by countries. A wide variety of compendiums, social reports and sectoral reports (item (c) above) are also issued by countries and help to achieve a partial degree of integration and consistency among data sources and across a wide range of subject-matter. However, in many cases, such as those confined to a special field, continuity has been a problem where such reports are not issued regularly over long periods of time.

The co-ordination of concepts, definitions and classifications (item (a) above) has generally been most successful in the context of household surveys. Integrated household survey programmes, such as those promoted in the developing countries by the National Household Survey Capability Programme of the United Nations, have proven to be efficient instruments for collecting a wide range of social and economic statistics on the population as a whole and on specific subgroups that may be of special interest. They have been used to collect data with virtually any periodicity, including longitudinal data, without the high cost and operational difficulties of censuses. The main disadvantages of surveys have been the high cost of increasing sample sizes in order to make possible sub-national estimates beyond urban/rural and/or large regions, and difficulties in collecting certain data which require professional or technical knowledge, such as health, or detailed information not readily available in the household, such as certain types of income. Given their smaller size and greater frequency, periodic surveys also lend themselves to incremental development of methodology.

Beyond census and survey work, modest progress has been made in many countries in the overall co-ordination of socio-economic concepts, classifications and definitions. Many developed countries have been able to co-ordinate statistics by geographical locality and age through the nearly total disaggregation in active storage made possible by computers, rather than by the adoption of a hierarchical classification, while in many smaller developing countries, geographical classification has been a relatively simple matter.

As a key classification for co-ordinating and comparing socio-economic data, the socio-economic group classification is now receiving considerable attention in many countries and at the international level. Household type or composition is likewise emerging as a fundamental classification for many analytical and policy purposes, as discussed in the section of chapter IV dealing with households.

Various issues and approaches to the integration of social with related economic statistics, using some kind of accounting framework, are discussed in two technical reports on this subject issued by the United Nations.<sup>55/</sup> They include the treatment in the national accounts of government consumption and expenditure and its functional classification, complexities of transfer payment systems in the social fields, the development of satellite accounts and the concept of total consumption of the population. Much of the national and international work along these lines is still relatively experimental and limited to only a few countries.

Sources of data for national compendiums of social statistics and indicators are analysed in the United Nations publication entitled Studies in Integration of Social Statistics.<sup>56/</sup> The most important sources have been national population and housing census and microcensuses and national household surveys. Some examples are the following:

(a) In Social Trends (United Kingdom),<sup>56/</sup> the most important sources are the population census, the continuous General Household Survey and the continuous Family Expenditure Survey. In addition, data are drawn from eleven periodic and two major ad hoc surveys;

(b) A similar number of surveys is drawn on for the Canadian, Finnish, French and Swedish publications, and a much larger number for Social Indicators, III (USA);<sup>57/</sup>

(c) In several European countries, microcensuses are extensively used;

(d) In Hungary, the principal source is the population data base ("BLAR"), which combines data from censuses, surveys, registration and vital records.

In addition to ongoing and ad hoc multi-subject and specialized household surveys, microcensuses and data bases, such as those cited above, several developed countries have conducted one or more surveys exclusively concerned with living conditions. The case of Sweden was noted above. Among others are the following:

(a) In Finland, the first Survey on Living Conditions was conducted by the Central Statistical Office in 1978 and is repeated periodically;<sup>58/</sup>

(b) In France, a trial survey on unfavourable living conditions ("Enquête sur les situations défavorisées") was conducted by the Institut national de la statistique et des études économiques (INSEE) in urban areas in 1978;

(c) In Norway, a survey on levels of living has been carried out by the Central Bureau of Statistics every five years since 1973 and provides much of the data base for Norway's work on planning its living conditions distribution policy.<sup>59/</sup>

#### S. Types of indicators and methods of calculation

The fundamental methods for developing indicators from basic data tables such as those illustrated in the present Handbook involve, first, the use of common abbreviated classifications, and second, calculations from these of the following basic types of indicators:

- (a) Numbers and percentage distributions;
- (b) Rates in the population;
- (c) Annual rates of change overall and in specific categories.

Three technical criteria of indicator quality are also important in the selection and preparation of indicators. Each indicator should:

- (a) Be available for the entire country;
- (b) Permit disaggregation to show sub-national or population group distributions of some kind;
- (c) Be reliable enough to use as a time series.

If an indicators programme is able to establish basic data tables and classifications on a reasonably consistent basis, calculation of the above types of indicators is straightforward. This section outlines some basic techniques for summarizing and presenting data that are useful for compiling social indicators based on the discussion of this topic in the preliminary guidelines. For some purposes, a few basic series may be used as indicators without modification or summarization. However, most will, at a minimum, need to be transformed into simple rates or ratios. Indicators may also consist of simple or synthetic arrays of basic data, for example a frequency or percentage distribution or a combination of a range of data in an index number, or other aggregate, respectively. The means of summarization selected in the case of a given social indicator will depend on the concern it is designed to portray and the basic data available for compiling it.

The use of common classifications and definitions throughout the framework for the integration of social and demographic statistics and the development of certain characteristic classifications and concepts within each field of statistics constitute the basis for linking and correlating the basic social, demographic and economic data. The types of interconnections proposed for the data of the framework usually depend on the use of common concepts, definitions and classifications and can be realized by organizing the data in the form of suitable tabulations. Applicable classifications and concepts are discussed in section C below, in the subject-matter sections of chapter IV and in the notes to the illustrative formats.

The exact specification of the indicators depends on the purposes and data available in each case. A fundamental objective of the basic data tables is to permit maximum flexibility in indicator construction for a wide variety of users while retaining a common core of series and classifications.

### 1. Simple social indicators

Simple social indicators consist of such summaries, arrays or selections of basic data as proportions of a population of a given characteristic, rates of incidence or of change, measures of severity, elapsed time, and the like; means, medians and other figures of central tendency, percentage distributions or fractile groupings, frequency distributions and measures of skewness and kurtosis.

Proportions. For example of the prevalence of illiterates in a population, of economically active among persons above minimum employment age, of households with a television set, are frequently used in compiling social indicators on the state of a given facet of living conditions. The state may relate to a point in time or a period of time. Rates of incidence, for example of births or deaths, are also commonly used proportions; they deal with the frequency of events during a period of time. The proportion of a population (universe) in a given state or experiencing a given event is often relatively easily computed; the needed figures are the numbers (total and the portion in the given state or experiencing the given event) of the appropriate universe, for example, persons, households or work-hours.

Rates of change in a stock or a flow, for example the average annual rate of change in employment or in household available income, are also used in constructing social indicators. Rates of change in stocks are themselves derived from measures.

Examples of measures of severity are average duration of events, such as spells of unemployment or of hospital stays and average property loss by victims of criminal offences. Similar indicators of flows are series on average elapsed time of shifts from one state to another, for example, time in custody prior to charging or sentencing, or from one kind of economic activity to another. The basic data for compiling such indicators may be difficult to gather because they involve longitudinal data or retrospective inquiries.

Arithmetical means and medians are the most commonly used measures of central tendency in compiling social indicators. In some cases arithmetical means are more easily computed and manipulated than medians, but they are poor measures of central tendency in the case of skewed distributions. Medians, quartiles, deciles and the like are therefore frequently used in the case of social indicators on the distribution of income or consumption.

Means, medians and the like involve cardinal measurement of the state (stock) or event (flow) in question. Many of the series on social welfare consist of classifications of persons, households, and the like according to qualitative characteristics, for example, ethnic origin, socio-economic group or type of living quarters. In order to portray such distributions, percentages are shown of the population in question falling into each category.

In the case of attributes, the measures of which are ordinal or cardinal, fractile groups (that is a division of persons, households or some other statistical unit ordered according to the magnitude of the attribute in question, into a number of classes of equal numbers of persons, households, etc.) are a convenient and valuable means of portraying the character and, in particular, the inequalities in the distribution of the attribute. This is so, for example, in the case of distributions according to size of income, magnitude of consumption, severity of a given event, or time available for leisure. The degree of inequality may be measured in terms of the proportion of the attribute accounted for by specific classes of the distribution, such as those at the low and high extremes, or by synthesised Gini or Pareto coefficients. Shifts occurring between two points of a lifetime or between father and son from one fractile group to another in size of income are ways of measuring intra-generational and intergenerational mobility. However, data for this purpose are difficult to gather; long-term longitudinal data or retrospective inquiries are needed.

## 2. Synthetic Index numbers

Synthetic index numbers or similar aggregates furnish valuable means of summarizing the data to portray trends in comprehensive aspects of welfare or social services. However, a weighted combination of the indicators or components or underlying factors must, in general, be used in compiling them but, because of the lack of suitable weights, synthetic index numbers are not often used in social indicators.

Money values may be used as weights in the case of series on such matters as the output and unit costs of the various social services, the use of those services and the consumption of goods for various aspects of welfare or the distribution of income. Again, however, in the case of the output, unit costs and consumption of the non-profit social services, the practicable money-value weights - the costs of various activities entering into the output - are not entirely satisfactory. In the case of most other aspects of living conditions, weights other than money values are not easily obtained. It has frequently been suggested that the required weights should be gathered through expert or even public scaling of the importance or contribution, to the living condition in question, of the components or other elements used in compiling its index numbers. However, this would not be feasible in the case of indicators for international use.

## 3. Life expectancies

Expectations of attaining a given state of welfare in the course of life or a portion of it furnish valuable summaries of the relevant events (flows) over the span of time. These analytical social indicators are commonly used in the case of average expectation of length of life at various ages. They may be used in the case of many other aspects of welfare, for example, expectations about the length and achievements of education, the frequency and severity of health disabilities, the length of working life or the growth of income. The expectancy in each case may be classified according to various constituent factors and/or compiled for various categories of the population. Such indicators may be derived from basic data on the events experienced by population cohorts over an extended period of time or based on a cross-sectional analysis. It is, on the whole, more feasible to gather and compile cross-sectional data than cohort data.

A number of examples are given in the United Nations publication Towards a System of Social and Demographic Statistics. 60/

## C. Basic classifications for indicators

Once the fields and topics for indicators have been outlined as described in chapter II above, basic statistical classifications for use in indicators should be developed. These must, of necessity, be based on the classifications used in the basic data, but for purposes of indicator compilation these source classifications often require careful adaptation. The process of adaptation should be undertaken with three objectives in mind:

- Meeting specific indicator requirements;

(b) Abbreviating classifications as much as possible to simplify compilation and presentation of indicators;

(c) Devising classifications into which data from a variety of sources, often using differing classifications or variants of classifications, can be fitted as consistently as possible.

All of the classifications referred to in the illustrative series and illustrative formats for basic data tables for indicators in the present Handbook are listed in table 1 according to the fields in which the classifications are used. This table also shows, for illustrative purposes, those classifications which are of most immediate interest in developing countries and the relevance of each classification to indicators on various special population groups. Sixteen of the more basic classifications for indicators are discussed in the present section of the Handbook. Five of these concern demographic and social characteristics (sex and age group, national or ethnic group, household size and composition, household headship and level of education); three are geographical (urban and rural areas, cities and urban agglomerations, and geographical regions); four concern activity characteristics (occupation, status in employment, socio-economic group and time-use); and four are classifications from economic statistics (percentage distributions of household income and consumption, kind of economic activity (industry), functions of government and institutional sector).

These basic classifications can be used to provide a firm foundation for the development of indicators in all of the fields covered by the present Handbook. They have been selected for discussion as basic classifications on the basis of (a) their substantive importance for indicators, usually in more than one field and drawing on multiple data sources; (b) the extent of their importance and use for indicators in national and international experience; and (c) the relative detail and complexity required in their use for compiling statistics for indicators. All but one of the basic classifications discussed below are shown in the illustrative formats for basic data tables, drawing on the relevant international recommendations. The exception is classification by national or ethnic groups. In this case, national experience and circumstances are so diverse that no international recommendations are feasible, and even an illustrative classification in the present Handbook could not serve any useful purpose.

Statistical concepts and classifications not reviewed in the present section are discussed in the relevant sections of chapter IV and in the notes to the illustrative formats.

Table 1. Illustrative use of classification for social indicators

Classification	Plaid ot use					Higher priority in developing countries			Relevance to specific population groups							
	A	B	C	D	E	F	G	H	I	J	K	Women	Men	Older	Youth	Disabled
<b>Population</b>																
1. Age group and sex <sup>a/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. National or ethnic group <sup>b/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>Human settlements</b>																
1. Urban and rural areas <sup>d/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Cities and urban agglomerations <sup>d/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Geographical regions <sup>d/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4. Size class of localities	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5. Land use	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>Household and families</b>																
1. Characteristics and facilities of living quarters	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Type of tenure	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Share in households	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>Household and families</b>																
1. Marital status	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Size and composition of households <sup>c/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Household headship	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4. Non-household population	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>Learning and educational services</b>																
1. Level of education	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Field	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Type of education	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>Economic activity and population not economically active</b>																
1. Type of activity	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Occupier <sup>d/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Status in employment <sup>d/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4. Socio-economic group <sup>d/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5. Not economically active	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>Distribution of income, consumption</b>																
1. Receipts	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Household goods and services	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Discretionary distributions of household income and consumption <sup>d/</sup>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Table 1 (continued)

Classification	A P C D E F G H I J K	Fields of use			Higher priority in developing countries			Higher priority population groups		
		Race	Elderly	Youth	Women	Elderly	Youth	Disability		
<b>Social security</b>										
1. Type of benefit		x x			x	x	x	x	x	
2. Type of service		x			x	x	x	x	x	
<b>Health and health services</b>										
Inequalities and disabilities nutrition (II.0)										
1. Diseases, injuries and cause of death		x	x	x	x	x	x	x	x	
2. Health services		x	x	x	x	x	x	x	x	
3. Targets and disabilities		x	x	x	x	x	x	x	x	
4. Nutrition standards and classifications		x	x	x	x	x	x	x	x	
<b>Public order and safety</b>										
1. Policies and disposition		x			x		x		x	
2. National services		x			x		x		x	
<b>Type use</b>										
1. Time use activities <sup>a/</sup>		x x	x	x	x	x	x	x	x	
<b>Economic classifications</b>										
1. Kind of economic activity (industry) <sup>b/</sup>		x	x	x	x	x	x	x	x	
2. Functions of government <sup>c/</sup>		x	x	x	x	x	x	x	x	
3. Institutional sector <sup>d/</sup>		x	x	x	x	x	x	x	x	
<b>A. Population</b>										
C. Household and families										
G. Households and families of population										
H. Health services										
I. Health, health services and health										
J. Learning and educational services										
K. Leisure, culture and communication										
L. Public order and safety										

<sup>a/</sup> Basic classifications discussed in this section of the handbook.<sup>b/</sup> Partial.<sup>c/</sup> Primary health care service.

## 1. Age group and sex

The use of a common classification of population by age group and sex is fundamental for the preparation of indicators across different fields and is indispensable for the identification of many age and sex-related population groups of particular interest for policy-making purposes.

The establishment of an age-group and sex classification for social indicators must balance competing demands and interest in showing greater detail, all the way down to the one-year level, with the need for simplification in indicators for purposes of ease of use for both data integration and understanding and presentation. The age group and sex classification used in most of the illustrative formats has been developed in the United Nations work on social statistics and indicators to reflect the main groups of general policy interest. These are women (United Nations Decade for Women), infants (up to age 1) and children (aged 1-14), which are of concern to the United Nations Children's Fund, youth (aged 15-24, pursuant to International Youth Year) and the elderly (aged 60 and above, pursuant to the International Plan of Action on Aging).

The age-group classification shown in illustration 1 is somewhat more detailed than this in order to incorporate distinctions for additional subgroups of population, as shown in Provisions: Guidelines on Standard International Age Classifications. 61/ Series for these additional groups can then be prepared where appropriate in specialized fields. Thus, 1 to 4 years of age is a widely used age group to distinguish young children, which are a major policy concern of the United Nations Children's Fund and of prime importance for health policy. As the youth age group, 15-24 years, covers a period of transition and accompanying changes from schooling and family dependency to employment and family formation, this group is subdivided into 15-19 and 20-24 in order to identify more clearly different stages in this transition. An age break at 45 is useful for distinguishing the reproductive and post-reproductive ages of women as well as general periods of the adult life cycle characterized by relatively different patterns and rates of change in labour force, household and marital characteristics and child dependency. Finally, the employment and dependency experience and, therefore, the policy issues concerning the elderly age 60 and over, change significantly with advancing age. Thus, this group is divided here into two groups, aged 60-69 to represent a relatively active and self-sufficient period, and 70 and over, when health, disability, income and social issues are likely to become more pronounced.

Unavoidably, all age-group classifications are to some extent arbitrary and have a different significance in different countries. For international work, however, it is essential to maintain the divisions at 5-year periods and to follow one convention as closely as possible for indicators.

## 2. National or ethnic group

In many countries government social and economic policies and programmes are closely concerned with the equal participation of various national and ethnic groups in economic and social activities and the equitable distribution of levels of living and social and economic benefits among these groups. A standard national classification of major national or ethnic groups in a country is therefore of key importance for many uses of social indicators. However, as noted in Principles and Recommendations for Population and Housing Censuses, 62/ the national and/or ethnic

groups of the population about which information is needed in different countries are dependent upon national circumstances. Some of the bases on which ethnic groups are identified are country of birth, country of citizenship, year of immigration, religion, race, tribe and first language. In addition, some of the terms used, such as "race", "origin" or "tribe", have a number of different connotations. The definitions and criteria applied by each country investigating ethnic characteristics of the population must, therefore, be determined according to the groups that it desires to identify. While there is very little uniformity in national practices, many of these topics are covered in national population censuses. Any classification adopted for indicators at the national level should be as consistent as possible with national census practices.

### 3. Urban and rural areas: cities and urban agglomerations; geographical regions

There are no internationally agreed definitions of urban and rural, but the basic concept as described in the United Nations population census recommendations is based on the assumption that urban areas provide a different way of life than is found in rural areas.<sup>63/</sup> In most countries the distinction between urban and rural is mainly based on size of locality.<sup>64/</sup> While in many countries the traditional assumption and concept are increasingly subject to qualifications and differences of application, the urban and rural classification remains useful and significant for initial and essential disaggregation of national data for indicators where greater disaggregation is not feasible.

From the international point of view, the basic importance of the urban/rural classification derives from two considerations: first, it is the only geographical classification at the international level and, in many cases, at the national level as well which is readily available and which can be used to identify within-country social and economic differences; and second, it is the most feasible way of obtaining data on the rural population, which is of fundamental importance for national policies and programmes concerned with agrarian reform and rural development.

An additional classification which is very useful for both national and international purposes is consistent identification of the largest cities within countries. Besides urban-rural comparisons, it is very important to be able to compare situations among specific cities and between cities and the urban population as a whole. The largest city or cities can be variously classified within a country, depending on their size and number. This is also a useful classification for data from sources where the basic data cannot easily be disaggregated by urban and rural, such as cause of death and school enrolment.

Cities (sometimes referred to as cities proper or administrative cities) are defined according to legal/political boundaries established in each country for each city. According to the United Nations population census recommendations, a city combined with the suburban fringe or thickly settled territory lying outside, but adjacent to, its boundaries comprises an urban agglomeration. In some cases, a single large urban agglomeration may comprise several cities or towns and their suburban fringes.<sup>65/</sup> The choice of definition and units for compilation of indicators in each country must depend on national circumstances in setting and maintaining city boundaries which reflect actual population distribution and data needs and availability at this level. For example, where city administrations are

strong, it may be most useful to use their administrative boundaries to define the statistical units. However in some cases, particularly in developing countries where rapidly growing urban agglomerations as a whole are more effectively the responsibility and concern of national Governments, agglomerations may be the more useful units. In either case a clearly defined classification of this kind is essential for showing major trends in distribution of population among human settlements at national and regional levels. It may also be useful, if possible, to subdivide population data for each urban agglomeration according to city proper and its fringe, at least for benchmark purposes.

Additional classification for indicators purposes by major and, in some cases, even minor regions is of fundamental importance to countries in identifying within-country disparities and applying indicators programmes at local levels. Appropriate levels of disaggregation for indicator data will vary considerably depending on the size and administrative structure of the country and the availability of data and data processing facilities for disaggregation. Possibilities include groupings of major administrative regions (which may be designed to reflect economic, social and agricultural/ecological/terrain differences), the major administrative regions themselves and minor regions. Whatever the level chosen, the choice should take into account the practical possibilities of providing and using the data at the smallest level used, the necessity of maintaining the greatest possible continuity in the classification over time and distortions which may arise in statistics and indicators using population rates when separate regions are defined administratively or statistically which are in fact highly integrated in terms of population flows.

#### 4. Household size and composition; household headship

In the United Nations population census recommendations, the concept of household is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. 66/ A household may be either a one-person household, that is, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form a multi-person household, or a multi-person household, that is, a group of two or more persons living together who make common provision for food or other essentials for living. The persons in the group may pool their incomes and have a common budget to a greater or lesser extent: they may be related or unrelated or a combination of both.

The concept of family is more restricted than the concept of household in that a household may consist of only one person but a family must contain at least two members, and the members of a multi-person household need not be related to each other while the members of a family must be related.

In identifying the members of a household, it is traditional first to identify the household or family head and then the remaining members of the household or family according to their relationship to the head. The head of the household or of the family is defined as that person in the household or the family who is acknowledged as such by the other members. (Although it has been agreed that a more desirable definition for purposes of dependency statistics would be the person who bears the chief responsibility for the economic maintenance of the household or family, it is not recommended that this definition be difficult to apply because of the difficulty of collecting information needed to determine economic responsibility.)

The procedure for identifying the head of household is based on the fact that most households are family households (that is, they consist entirely, except possibly for domestic servants, of persons related by blood, marriage or adoption) and the assumption that one person in the household, namely, the head, has primary authority and responsibility for household affairs and, in the majority of cases, is its chief economic support. In most countries of the world, this procedure is still appropriate, but in countries where spouses are considered equal in household authority and responsibility and may share economic support of the household, the concept of head of household is no longer considered valid even for family households. In order for the relationship among members of the household to be determined, the latter countries may prefer (a) that the members of the household designate one among them as a reference member with no implication of headship or (b) that provision be made for the designation of joint headship where desired. These possibilities have been taken into account in the regional census recommendations for European countries, which should be consulted for further details. 67/

Even in the many countries where the concept of head of household is still relevant, it is important to recognize that the procedures followed in applying the concept may distort the true picture, particularly in regard to female heads of households. The most bias is that no woman can be in fact the head of any household that also contains an adult male. In some cases, instructions to enumerators may explicitly state that a woman can be entered as head only in the absence of any male above a specified age. In other cases, even where there are no such instructions, enumerators and even respondents may simply take some such assumption for granted. This common sex-based stereotype often reflects circumstances that may have been true in the past but are no longer true, as the household and economic roles of women are changing.

Current national and international practices concerning household classification vary widely. The following illustrative classification of households according to size, composition and headship is from illustration 6:

One-person household

    male  
    female

Two- or more-person household

    Without children

        under 15  
        male head  
        female head

    With children

        under 15  
        male head  
        female head

Sub total male head

Sub-total female head

Total male head a/  
Total female head b/

a/ includes one-person households.

This classification can be used to provide data for indicators on three topics of major concern in the field of households, namely household size, households with members under age 15 and sex of head.

The concept of household head (or reference person), as shown in the classification by sex and as discussed above, has become a matter of controversy in many developed countries due to the priority usually given to males in assigning headship. In many other countries the application of the concept can be ambiguous in other ways. None the less, for most countries this is the only practical way of identifying households for which in general females are responsible for children, with no spouse present. 60/

Classification of households and population in households, even when it is simplified as much as possible as shown in illustration 6, requires a relatively complex tabulation, but it is very useful for social policy analyses. Other household characteristics can also be considered for tabulation, such as age of head, number of family nuclei present, presence of non-related persons and number of generations in the household. 69/

#### 5. Level of education

Educational attainment refers primarily to the highest grade completed within the most advanced level attended in the educational system of the country where the education was received, but it should also take into account any adult education measurable in levels and grades, or their equivalent, even if it was provided outside of the regular school or university system. For international purposes, a "grade" is a stage of instruction usually covered in the course of a school year. 70/

The UNESCO classification of education by level as it is applied in the United Nations population census recommendations is given below: 71/

- (a) Education at the first level, which usually begins between ages 5 and 7 and lasts about 5 years;
- (b) Education at the second level, first stage, which begins at about age 10-12 and lasts for about 3 years;
- (c) Education at the second level, second stage, which begins at about age 13-15 and lasts for about 4 years;
- (d) Education at the third level, which begins at about age 17-19 and lasts for at least 3 or 4 years or longer, depending upon the stage:
  - (i) Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree;
  - (ii) Education at the third level, first stage, of the type that leads to a first university degree or equivalent;
  - (iii) Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent.

For purposes of social indicators an abbreviated classification such as that shown in illustration 9 can be used.

#### 6. Occupation

Occupation refers to the kind of work done during a selected time-reference period (or kind of work done previously, if unemployed), irrespective of the industry (branch of economic activity) in which an individual works or his or her status in employment.

Measurement of occupation provides basic indicators of individuals' skills and responsibilities in employment as well as important indicators of the stock of certain key skills in society.

The classifications of occupations in parts B and C of illustration 11 are based on the 1968 and 1988 International Standard Classification of Occupations (ISCO) as adopted by the International Labour Organisation.<sup>72/</sup> The classifications are aggregated in this illustration to bring out the main types of occupations of interest for social indicators, but selected subcategories are shown separately where the information is useful for indicators in fields besides economic activity, namely health (medical and dental workers), public safety and criminal justice (jurists, policemen and guards) and specially trained workers in agriculture.

Five groupings are shown for occupations in illustration 11 using the 1968 international classifications, and six using the 1988 classification. In 1988 the professional and technical workers are split and the concept of technical occupation is expanded to include a wide range of special administrative skills.

National classifications of occupations should be carefully developed using the international recommendations as a starting point to meet the needs and circumstances of each country, especially in developing regions where the structures of employment activity are more varied, are changing more rapidly and differ in many other respects from those in developed countries. However, for the purposes of indicators only a highly abbreviated classification is needed, and this should closely follow the major groups of the international classifications. For detailed listings and descriptions of the contents of each group shown here in the illustration, the full classifications should be consulted.

#### 7. Status in employment

Status in employment refers to the status of an economically active individual with respect to his or her employment. The internationally recommended status in employment classification is contained in the United Nations population census recommendations,<sup>73/</sup> and is fundamental for distinguishing, at least approximately, relatively organized economic activity (employers and employees) from small-scale household economic activity (unpaid family workers and own-account workers) in the various branches.<sup>74/</sup>

According to this classification, an employer is a person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade, and hires one or more employees. An own-account worker is a person who operates his or her own economic enterprise or engages independently in a

profession or trade and hires no employees. An employee is a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips and piece-rates or pay in kind. An unpaid family worker is a person who works without pay in an economic enterprise operated by a related person living in the same household.

For the purposes of social indicators the status in employment classification shown in illustration 11 is supplemented with a subclassification of employees by institutional sector to distinguish employees of general government, public enterprises and private enterprises. This subclassification can be based on the definitions in the institutional sector classification of the United Nations System of National Accounts as follows: 15/ general government to include the central bank; other financial institutions to be included under public and private enterprises, as appropriate; private non-profit institutions serving households and households to be included under private enterprises. The institutional sector classification is discussed further in subsection 11 below.

#### B. Socio-economic group

The content and uses of this classification have been discussed extensively in the Conference of European Statisticians in the context of the European regional recommendations for population and housing censuses. 76/ As the European recommendations state, the purpose of a socio-economic group classification is to identify different population groups which are, on the one hand, reasonably homogeneous and, on the other hand, fairly clearly distinguished from other groups in respect of their behaviour and which can, therefore, be used to establish the relationship between the socio-economic position of individuals (and households and family nuclei) and many demographic, social, economic and cultural phenomena. The classification should also give an adequate picture of the changes which take place in the socio-economic structure of the population between two censuses.

The socio-economic group classification recommended in Europe is a derived classification. Its basic categories are limited to classes which can be derived from the basic levels of the classifications by type of activity, status in employment and occupation. The classifications shown in illustration 12 are a further adaptation and simplification of the European recommendation taking into account in particular the need in developing countries for a simple classification for indicators which will show the basic social structure relative to economic activity and be able to monitor key changes as development proceeds. Thus, certain so-called sectors are covered which are of special interest in developing countries, namely small and larger-scale farming households, agricultural households without land, employers and highly-skilled workers and small-scale (informal or own-account) working households.

As in illustration 11, different versions of the classification are shown for the 1968 and 1980 revisions of the occupation classification, but these two versions are kept as similar as possible to maintain continuity in the series. For a further discussion of the socio-economic classification, see chapter IV, section F.

#### 9. Percentile distributions of household income and consumption

The measurement of household income and consumption and their distribution presents a number of serious conceptual and practical difficulties in both developed and developing countries. These give rise to serious limitations of comparability at the international level and very limited international availability of data from developing countries. None the less, where income and/or expenditure surveys are conducted on a representative sample of urban and/or rural households, it should be possible to prepare a basic classification of households by income or consumption distribution, as shown in illustration 12B. Data so classified should be presented with as careful and detailed notes as possible on data sources and methods, but with this information comprise an invaluable tool for the analysis of inequality, poverty and comparative levels of living.

#### 10. Time use (activities)

There is no standard international recommendation concerning classification of time use. But a wide range of national and international classifications has been tested over the last two decades in developed and developing countries. The classification shown in illustration 13 is based on the reviews of classifications and of uses of time-use data contained in United Nations reports on time-use statistics in 1986 and 1988.<sup>11/</sup> It is designed to provide data for indicators on economic activity, household work and other activities, distinguishing agricultural market and non market activities and, in the field of leisure and free time, education and social activities.

For the definition of economic activity according to the System of National Accounts (SNA), see chapter IV, section F. For the concepts and classification of status in employment, also see subsection 7 above. Agricultural includes economic activities in agriculture, hunting, forestry and fishing.

The principal groups of non-economic work and obligations distinguished in the classification in the illustration are those of interest for various specialized fields of social indicators and for estimates of the value of household work and obligations not included within the SNA definition of economic activity, as discussed by the United Nations Expert Group on Measurement of Women's Income and Their Participation and Production in the Informal Sector.

#### 11. Kind of economic activity (industry), functions of government and institutional sector

The kind of economic activity classification refers to the principal type of economic activity in which an economic production unit is engaged, whether the unit is a public or private enterprise or establishment, a household, an individual working on own account or unit of government.

A common short form of this classification used in the analysis of economic activity and the labour force is agriculture, industry and services. However, this is seriously inadequate for many of the purposes of social indicators. The classification shown in illustration 11 is adapted from the International Standard Classification of All Economic Activities, revision 2 (ISIC),<sup>12/</sup> with a view to highlighting those areas of particular interest for social indicators. In this illustration, the following additional detail is introduced:

(a) Agriculture/agricultural services and forestry/fishing are distinguished because of their great importance in developing countries and the different economic and social arrangements associated with each group of activities;

(b) Trade and economic services are distinguished for the same reasons, particularly to elucidate the role of petty trade in the so-called informal sector;

(c) Recreational and cultural services is an important group for indicators in the field of leisure and culture;

(d) Personal services is also important in many developing countries.

The second group of activities shows significant social services of public concern which are usually publicly provided, funded or regulated. Data relating to education and health services are also very important for indicators in those fields. For detailed descriptions of the contents of each class, the full classification should be consulted.

From the national accounts point of view, classification according to institutional sector is a fundamental concept which is applied mainly in production accounts. While production account data are considered outside the scope of social indicators in the present Handbook, certain aspects of classification by institutional sector are of significant interest for many fields of social indicators. In particular, indicators are needed on the size and relative importance of general government and private consumption expenditures in the social fields, as shown in illustration 13A, and on the size and relative importance of employment in government and in private and household enterprises, as shown in illustration 11A. For the purposes of social indicators and for practical reasons, households and non-profit organizations are usually combined in the application of the institutional sector classification. Detailed information and guidance on institutional sectoring is provided in the United Nations SNA.<sup>79</sup>

The classification of functions of government has also been internationally recommended in connection with the United Nations System of National Accounts.<sup>80</sup> The items of government final consumption expenditure shown in illustration 13 are similarly classified in SNA, the kind of economic activity classification (ISIC) and the functions of government classification. The items shown in illustration 13 are those which are important for the development of social indicators. For additional items included in the total, the full classifications in the sources cited should be consulted.

#### D. Basic data tables for indicators

Fourteen illustrative formats for basic data tables for indicators are presented in annex 1. The purpose of the basic data tables as an intermediate step in the development of indicators is described at the beginning of the present chapter.

In preparing these 14 illustrations, the following considerations have been followed:

(a) The necessity of using the most abbreviated possible classifications consistent with the purposes and objectives for indicators;

- (b) The practical possibilities of compilation in the various fields at national and international levels;
- (c) The coverage of specific fields and issues most often sought in national and international indicators programmes;
- (d) The extent to which the underlying source data are organized within a well-tested and integrated statistical framework which the table can draw on;
- (e) The scope and detail of indicators which can be provided from one basic table.

The organization of the illustrations is oriented to the conceptual organization of the data sources on which they are based rather than fields for social indicators. Series are shown in the illustrative formats consistent with the concepts and organization of the sources but only where they are needed for indicators. Thus, basic data can be seen as a bridge between data sources and indicators. Many of the illustrative basic tables provide data for indicators in several fields of social concern, but when basic data are relatively ad hoc in nature or not organized within an integrated conceptual framework, they are not shown in the illustrative formats but are noted in the discussion of indicators in the respective fields in chapter IV. In other words, basic data tables can usefully be prepared in areas where (a) there is an integrated conceptual framework which can be used to organize the data for indicators and (b) substantial simplification within this framework is needed for indicators purposes.

Sources of data and methods of compilation for the illustrative basic data tables are, in most cases, relatively straightforward. A brief review of each illustrative format is given below.

1. Population by age group and sex, urban and rural
2. Population according to geographical regions and size of locality
3. Population of geographical regions by urban and rural and major cities, and by age group and sex

In addition to providing basic data for the fields of population and geographical distribution of population, these tables provide basic population data which are used for percentage, per capita and similar calculations of rates and ratios in virtually all of the other fields. They are therefore the most fundamental and widely used in the whole statistical framework and should thus be established as the central part of any social indicators programme. The benchmark data are based on the population census and should incorporate adjustments to age and sex distributions where necessary. Between-census age and sex distributions can also be estimated with some reliability, but between-census urban, rural and city data cannot be estimated reliably in most countries and hence are not shown here.

#### 4. Land use

Basic data on land use are compiled by the cartographic services of a country. The classification for indicators shown in this format is basically a reduced version of the classification adopted by the Economic Commission for Europe/Conference of European Statisticians in co-operation with FAO with the additional explicit identification of recreational land in built-up areas for use in calculating indicators in the field of leisure and cultural activities. Regional data are for use only at the national level. These data are fundamental in calculating various population densities as well as indicators on land use and trends.

#### 5. Population by type of living quarters and housing stock and its characteristics, and residential construction and its characteristics, urban and rural

Basic data on the housing stock, population by type of housing and residential construction are outlined in illustration 5. The classifications and series shown are intended to take account, on the one hand, of existing statistical terminology and, on the other, of specific issues given priority at national and international levels in connection with housing, for example in the International Year of Shelter for the Homeless. These include population in marginal housing and homeless, provision of water and sanitation. A desirable additional criterion of classification concerns illegal occupancy (squatter settlements), but no international recommendations on appropriate concepts and definitions for this term are available.

Additional primary concerns in the field of housing are overall number of rooms per capita or per household and electric lighting. Many countries also use one or more other criteria to measure housing quality, such as age of the building and materials of which specific parts of the building are constructed.

Part A of illustration 5 will be based entirely or almost entirely on housing censuses. Residential construction data in part B must be provided by current construction statistics. These are more or less limited in developing countries but may often be available for urban areas only.

#### 6. Household size, composition and headship, and non-household population

#### 7. Marital status and divorces by age group and sex, urban and rural

Household size, composition and headship have been identified in many national and international social indicators programmes as being of urgent concern, but the appropriate data have been difficult to compile, at least at the international level, because of differing national classifications and technical difficulties in tabulation. There are also many well known problems and controversies surrounding the concept and definition of head of household.

The approach suggested here for compilation of social indicators uses a minimal classification of households based on size, male and female headship and presence of children under age 15, including data on one-person households, a group which is expanding rapidly in many developed countries. For additional insight into the personal/family circumstances of the adult population, format 7 on marital status and divorces is suggested as the most practical and informative approach.

Because of the sensitive interrelations among the various cells in format 6 (minor changes in almost any one cell must be balanced by substantial compensating effects throughout the table), illustrative (and purely fictional) data have been inserted to illustrate the linkages.

Data are also needed for indicators on the population not living in households. The non-household population is an important social indicator in and of itself and, suitably classified, provides important indicators in other fields.

The basic source of benchmark data on households and marital status is the population census. Inter census data may also be obtained from household surveys, where desired. Data on divorces must be obtained from civil registration sources and will be incomplete in most developing countries.

#### 8. Mortality by age group, sex and cause of death

Data on deaths by age group, sex and cause are used for fundamental indicators on deaths and death rates, which are among the best readily available indicators in the field of health and health trends, where available. These data are normally from vital registration systems. Comprehensive and reliable death registration data are compiled in virtually all of the developed countries but in relatively few of the developing countries. Separate data for urban and rural areas would be desirable but are much more difficult to prepare and so are not shown in the illustration.

Even in countries where data are limited, much of the basic table can be filled in using various estimates. For example, most countries have substantial demographic data which can be used to make estimates of death rates by age and sex, and some data on deaths by cause and even by age are often available. Where mortality data by cause, age and sex cover only a fraction of the population, however, they should be interpreted as giving a general idea of the distribution of deaths by cause rather than reliable information on specific rates by cause.

#### 9. Educational attainment and illiteracy, urban and rural, and post-secondary enrolment and attainment

This illustration provides for data on the stock of educational attainment in the population, that is amount of education completed, and literacy, by age group and sex, and on enrolment at the third level (post-secondary). Relatively detailed data at the first and second levels, including urban and rural, are essential to give a good picture of long term trends and urban-rural differences in developing countries. At the third level, attainment data are one of the few means of making international comparisons.

Data for this table are readily available from population censuses and inter-censal surveys, except for third level enrolments, which are available

annually from the educational administrative services. Enrolment data are not normally available by age except as rough estimates, so that census data on attendance are a useful complement.

10. Labour force participation by age group and sex, urban and rural

11. Labour force by branch of economic activity, status in employment, occupation and sex

These illustrative formats are designed to provide a rather detailed picture of the social and economic organization of the economy and the labour force and to shed light on their interrelations. Many of these series are also needed for indicators in other fields.

Data on the labour force by branch of economic activity, status in employment and occupation are among the most valuable tools available for the development of indicators on the socio-economic structure and development patterns of a society and the distribution of human resources among various economic and social activities. Each branch of the economic activity classification shown in Table 10A has distinct social and economic features. Indicators of relative and absolute change in these branches are good measures of important aspects of social and economic development. Naturally, however, specific categories may be of less interest in a given country and can accordingly be combined to preserve the focus on the most important ones in each case. Data distinguishing government and non-government employees are also of great importance in assessing the role of government in employment and in the various branches. In many countries, however, these data are not available in detail, but partial estimates should be developed within the framework of the Table, if possible.

The occupational data in the illustration are not as detailed as the classification by branch, but are useful in showing the general level and distribution of skills in the occupational structure. Data on persons not economically active are essential to gauge the extent of possible growth and change in the labour force and their current main activities and to assess long-term trends in participation.

12. Households by socio-economic group, urban and rural

This illustration provides for data on the socio-economic group distribution of households according to eight main groups. These data provide basic indicators of socio-economic development and are particularly valuable for delineating different trends of development in urban and rural areas.

Socio-economic group data are normally prepared from population census data but can also be compiled from inter-censal household surveys. The compilation of data on socio-economic groups requires careful analysis of census classifications and data processing procedures and should thus preferably be planned in advance of census work.

13. Gross domestic product, current and constant prices, and household income and distribution of household income or consumption, urban and rural

The United Nations Systems of National Accounts and Balances are a rich source of fundamental data for social indicators. They provide internally consistent, well-tested and widely used frameworks for the compilation and aggregation of national economic data on production, consumption, income and expenditure.

The illustrative basic table format for gross domestic product (GDP) and household income statistics for social indicators is arranged to present data on levels and trends of GDP, its main components and patterns of government and private consumption, and transfers and taxes. Using these basic data, social indicators can be compiled on levels, trends and distributions of government expenditures in the social fields, the pattern of private consumption, investment overall and in housing, and household income, and the distributive impact of transfer and related income and of direct taxes, social security and pension fund payments.

The indicators which can be prepared from this table are discussed in more detail in the relevant sub-sections of the present report dealing with specific fields. A few general observations on the table and on the national accounts and balances may be made here.

First, the series shown are a basic minimum which should be available in most countries annually or nearly annually.

Second, the organization of section A of the table in terms of GDP and its main components helps to ensure overall consistency and eliminate serious double-counting. Within countries, over time, the relationship between GDP and the details shown is, statistically, relatively reliable. For purposes of international comparisons, the basic table sets out a reasonable point of departure for analysis.

Third, serious problems do arise in trying to make even fundamental international comparisons of accounts aggregates and distributions, such as those shown in this table. Among these problems are the following:

(a) The use of income and product data to measure levels of living and social conditions must take into account differences among countries in purchasing power, both overall and in sub-fields for which comparisons are desired;

(b) Percentage distributions provide a rough approximation of what might be called comparative levels of effort, but significant classification issues and ambiguities can cause these data to be seriously misleading.

These problems are discussed in more detail in a United Nations technical report. 81/ Among those which may be mentioned here are:

(a) Conceptual ambiguity and practical problems in establishing a clear distinction between government and private final consumption expenditure in social fields;

- (b) The treatment of imputed household rents, which measures imputed income and expenditure quite differently from actual monetary flows;
- (c) Inclusion of non-profit organizations with households in the private sector;
- (d) Inconsistent or inadequate treatment of fixed capital expenditures;
- (e) Inadequate treatment and data on international monetary flows which have an impact on resident household income;
- (f) Inconsistent treatment and lack of data on employers' and employees' pension fund contributions and assets.

GDP series must be estimated within the frameworks of the national accounts and balances, supplemented by household survey data on consumption. Household income and income distribution series must be based on household surveys. Appropriate surveys are now widely conducted in developed countries but much less so in developing countries. Frequently surveys in developing countries are for an urban area or areas only and fail to take account of production for own consumption or have other limitations in scope and coverage which seriously limit their suitability for use in this table.

#### 14. Time use (hours per week), by age group and sex, urban and rural

The way in which individuals use time reflects their principal activities - economic activity, education, housework, and so on - and their style and conditions of living. Series on the use of time therefore cut across, and are related to, many of the fields of the framework for social and demographic statistics. They are particularly useful in identifying the activities of women, which may not be fully covered by more traditional series.

Social concerns about the use of time relate to such questions as the amount of time available for personal and family care and obligations, for social obligations and participation and for leisure, and whether persons must spend an inordinate amount of time in travelling to work, school, retail shops and markets or recreational facilities or in their other principal activities. The series in illustration 14 are designed to show how groups of the population, especially, for example, men and women, have different styles and conditions of living, by showing how their time is used. The time-reference periods used may be the twenty-four hour day, the week, the month or the year. The shorter the interval of time used, the less difficult it is to gather basic data on time budgets. However, the time spent on various pursuits during a given day may not be representative of longer intervals of time.

Reliable, comprehensive data on time use can only be collected in surveys of time budgets. These are now regularly collected in many developed countries but in only a few developing countries, infrequently and with varying coverage. Nonethe less, even data from a small-scale survey can be useful for indicators on key aspects and differences in time use by sex and age group and on relative participation in various economic and non-economic activities.

#### IV. INDICATORS IN SPECIFIC FIELDS

This chapter of the Handbook reviews fields and topics of social interest and illustrative series, classifications and data sources for indicators in the context of the framework for the integration of social, demographic and related economic and other statistics. Eleven fields are covered by the framework for integration, and each is discussed below. At the end of the present chapter, table 2 shows the sub-topics within the fields, and illustrative series and classifications are presented for each sub-topic in column 1 of the table. Column 2 shows appropriate data sources for the series or refers to the relevant illustrative basic data table. The illustrative formats for basic data tables for indicators are reviewed in section III.D above, and the illustrations discussed there and referenced in the table of fields and series are given in annex I.

In some cases the illustrative series shown in the table of fields and sources could be selected as social indicators with no classification or disaggregation, but in most cases a selection or disaggregation of the series according to one or more classifications, as shown, is desirable. References to international guidelines and other information on classifications are given in section III.C on basic classifications and in the discussion of each field below. The classifications can be applied in greater or less detail according to the circumstances and requirements in each case. For most purposes relating to social indicators, only broad categories or even selected categories of most classifications will be used. These are shown in the illustrative basic data formats, where feasible.

As has been noted at many points in the present publication, the series and classifications set out in table 2 furnish an illustrative selection intended to assist countries and international organizations in formulating social indicators in view of their own concerns and availability of statistics. It is recognized that the relevance and priority of given fields and sub-topics and therefore of the series and classifications related to them, as well as their availability, will differ from one country to another. In particular, as discussed in chapter III above, the adaptation of many key classifications for social indicators purposes will depend on circumstances and priorities in each country. For instance, relatively detailed geographical breakdowns are of great importance for the development of city and regional social indicators which reflect local conditions and disparities underlying the national aggregates. However they are not, in general, shown in the classifications in the table of fields and series because (a) the appropriate detail is partly a matter of the extent to which full-scale sub-national indicators programmes are being developed; and (b) it is not feasible to use sub-national indicators in international work, apart from the urban and rural and major cities classification discussed in subsection XIII.C.3 above.

##### A. Population composition and change

Size and structure of the population in terms of age group, sex and national or ethnic origin and changes over time are subjects of major social importance. These changes are also fundamental in evaluating past and projected trends in levels of living and in social and economic activity.

Principal topics to be covered by indicators in the field of population are overall size and distribution by age group and sex and by national or ethnic group; overall population growth and growth of specific age groups by sex; and the composition of population growth in terms of births, deaths and international migration. Indicators on these topics are needed to monitor the population situation, overall and changes in it; the composition of population in terms of specific population groups defined according to age, sex and national or ethnic groups and changes in this composition; and levels and trends of births, deaths and international migration, which are fundamental factors in overall population trends. Distribution of population is covered in section B below, in connection with housing and human settlements.

The size and composition of the population according to sex, age group, and national or ethnic group and rates of change are essential to understanding population trends in themselves as well as their impact in terms of social and economic conditions and problems, the demand for and use of social services and rates and types of participation in social and economic activities. Series on births, deaths and international migration portray the trends in the components of national population change. These elements of overall population change may be the subject of varying government policies and programmes. Classification of births by age of mother allows an indicator to be calculated on percentages of total births accounted for by different age groups.

A substantial portion of the desired indicators in this field can be calculated from illustrative basic data format I. Of particular interest are age and sex distributions and trends, including children under age 15, youth aged 15-24, elderly aged 60 and over, and sex ratios within the age groups. However, illustrative format I does not show any classification by national or ethnic group because, as discussed in section III.C.3 above, there are no international guidelines on this classification and national practices vary widely.

Appropriate indicators at the national level for national or ethnic groups would include percentage distributions and rates of growth similar to those used for age groups. Where national or ethnic minorities are considered to be of policy significance in a country, a standard national classification should be developed so that social indicators in all the fields of social concern can be disaggregated accordingly. Available population census data on national or ethnic groups are given in the United Nations Demographic Yearbook 1983, 82 according to each country's own classification.

Indicators on migration and national or ethnic groups which can feasibly be compiled for a significant number of countries from data available internationally are percentage of the population foreign-born by age and sex, percentage and origin of population comprising the national or ethnic majority and percentage of the population which are national citizens. The second of these is a useful overall measure of the basic national or ethnic composition of a population, and the third is a reasonable measure of the extent of non-permanent immigration, largely for employment or as refugees, recognizing that "non-permanent" may eventually change officially to permanent. The first is a useful overall measure of the cumulative impact of immigration within one generation but does not distinguish the short-term and long-term elements in this migration.

### B. Human settlements and housing, and geographical distribution of population

Housing, human settlements and distribution of population have been grouped together in the present section for the first time in United Nations work on social indicators, in line with the unified priority given to a wide range of human settlements issues at the international level. B1/

The concerns in many countries about the rapid increase of population in urban areas and the resulting problems of urban crowding, housing, water and energy supply, sanitary services and concomitant welfare problems, call for indicators of the geographical distribution and density of the population. Some countries are also concerned with problems arising from population decreases in rural areas. The series and classifications shown in the first two parts of section B of table 2 are designed to portray the structure and trends of geographical distribution of population and land use. This approach yields information on the dimensions of urbanization, on needs for social services in specific agglomerations and regions, on geographical shifts of the population and on land and land use per capita.

Satisfactory housing is closely related to the geographical distribution of population and is an essential aspect of adequate living conditions. The type and quality of shelter in which people are housed - the space, degree of crowding, facilities, surroundings, available transport - affect their activities of personal and family care and influence their economic activity, health, social intercourse and general outlook. The supply, characteristics and costs of housing are therefore community matters of social importance. An additional important feature of levels of living related to housing concerns the availability and use of energy to maintain interior comfort and other amenities in living quarters and climate. Illustrative series and classifications in this field are shown in subsections 6 and 8 of part B of table 2. Pollution affecting dwelling areas or neighbourhoods is also a matter of social concern, particularly pollution of air and water and in the form of noise. Statistics on environment and pollution are beyond the scope of the present publication but are taken up in separate United Nations reports. B4/

### C. Households and families, marital status, fertility

Family formation, household size and composition and marital status are fundamental factors underlying the living conditions of the population. In some countries the family unit consisting of parents and their never married children is considered the norm, while in others living arrangements involving an extended family are more common. However, in almost all countries, increasing numbers of persons live in family arrangements that differ from these "typical" arrangements, creating special policy issues. For example, households with children in which only one parent, most often the mother, is present give rise to a number of special welfare and related issues.

Indicators on family formation and dissolution and household size and composition are also important in making estimates of future demands for goods and services in many fields, especially housing. The series and classifications shown in part C of table 2 can be used to provide indicators on households with children under age 15 by sex of head, size of households and marital status and divorce.

#### D. Health and health services: impairment and disability: nutrition

The state of health of the population, the resources used for health services, the facilities and services provided and the nutritional status of the population are vital concerns of a society. Physical and mental well-being and adequate nutrition are basic to unhampered and effective participation in economic and social activities, to pleasure derived from engaging in these activities and to length of life itself. Social indicators are therefore needed to monitor and assess the health status of the population, the provision of health services and the adequacy of food supplies and food consumption to maintain health.

In addition and closely related to the assessment of health status, indicators are needed on the incidence and prevalence of impairment and disability and the social and economic situation of disabled persons, pursuant to the goals of the United Nations Decade of Disabled Persons namely full participation and equalization of opportunities.

##### 1. Health status - mortality and morbidity

Because of the conceptual and practical difficulties of the direct measurement of good health, indirect series for this purpose are shown in section I of part D of the table. These measures deal with number and rates of death by cause, which are closely related to the extent of poor health, life expectancy at various ages and the prevalence and severity of selected communicable diseases.

Death rates classified according to cause, age group and sex point to the important states and circumstances of poor health that lead to deaths, and also point to vulnerable groups. Expectations of years of life at selected ages, such as 15, 45 and 60, are comprehensive measures of mortality and, at older ages, important indications of future needs for social and economic services for the elderly.

No reliable general indicators of morbidity have yet come into general use or been proposed by WHO. There exists, however, considerable specialized literature and accompanying statistics on the incidence of a wide range of diseases and health conditions of public health importance, such as malaria and sexually transmitted diseases, but these are difficult to translate into general indicators. Therefore, mortality by cause and age group is still the most common and effective general health indicator in countries where these data are available, while anthropometric measures developed for the study of nutritional adequacy are suitable for use in developing countries, particularly among children.

##### 2. Impairment and disability

Series for indicators on the prevalence and severity of impairments and disabilities should be based on a short list of conditions of varying degrees of seriousness, depending on the reliability and detail of the underlying data, and should be understandable by lay persons. A classification of impairments which has been developed by the United Nations for the study of population census and survey data and is based on the WHO International classification of impairments, disabilities and handicaps is the following: 85/

- |  |            |   |
|--|------------|---|
| (a) Acute  | )          |   |
| (b) Language)  | Sensory    | ) |
| (c) Ocular   | )          | ) |
| (d) Visceral (internal organs and special functions) | ) Physical |   |
| (e) Paralysis  | )          |   |
| (f) Disfiguring                                      | )          |   |
| (g) Mental and psychological                         |            |   |
| (h) Generalized and others                           |            |   |

### 3. Health services and resources

The illustrative series and classifications for this topic deal with means for protection against, and treatment of, ill health. The series specifically devoted to protection relates to immunization against specified diseases. Other series cover resources for action to either prevent or to treat ill health and for childbirth.

The series on the availability and use of health services deal with the number of trained health personnel according to geographical regions. Those on the use of health services deal with births with trained attendants and visits to trained health personnel. Series are also needed on the economic cost of health services, trends in costs, the relative weight of health services in the overall economy, the public/private distribution of health costs and distribution by income levels, as shown in the table.

In general, the ultimate productivity of health services resources, that is improvements in health status and decreased mortality, is a complex topic which is beyond the scope of the present report. However, it should be noted that in practice the commitment of human and financial resources to health services by no means ensures efficient translation into effective services and their equitable distribution, nor does the provision of various services necessarily or automatically result in identifiable improvements in health status. A few specific services in developing countries, are, however, generally considered to be of proven value and cost-effective, namely provision of primary health care, such as attendance of births by trained personnel and certain vaccinations, and other public health services.

### 4. Nutrition

The supply, distribution and nutritional adequacy of food for a population is of basic social importance in countries and a fundamental element of levels of living. Series are wanted for indicators on food supply and its nutritional value for all population categories, particularly population groups differentiated according to sex and age group, urban and rural areas and geographical regions.

Common global measures of the adequacy of food supplies are the overall estimated supplies of energy (calories) and protein for human consumption.

These measures are relatively easy to calculate in terms of national aggregates, but they do not reflect distributional variations among population groups or geographical regions, which are usually substantial. Calculation of these measures for particular geographical regions gives a better picture of distribution, but reliable benchmark data on nutritional adequacy can only be obtained through a survey which studies actual food intake. Hence series and indicators are shown on the intake of energy (calories) and protein as well as supply of energy. Complementary benchmark information on malnutrition can also be obtained through surveys of anaemia in women, birthweight and measures based on height, weight and age.

Consumption of alcohol and tobacco products are also important factors in health and food consumption patterns. Series on these items can be compiled from production and trade data and, where applicable, population inquiries.

#### E. Learning and educational services

The acquisition and maintenance of skills, knowledge and values and the provision of suitable resources for this purpose in an efficient manner are fundamental concerns of governments. The skills, knowledge and values of individuals play an important part in their interests in and capabilities of participating in the economic and social life of a society and in attaining satisfying incomes and living conditions. While skills, knowledge and values are acquired in many ways, organized (including regular and adult) education is usually an important medium. Practically all the illustrative series in section E of the table refer to organized educational services; direct data on skills, knowledge and values and on non-formal education are, on the whole, difficult to gather. Thus the illustrative series relate to participation in education, inputs of resources for educational services and the stock of educational attainment.

A basic tool in preparing series and indicators in this field is the International Standard Classification of Education (ISCED) of UNESCO. In this statistical classification system, classifying criteria are the level and the subject-matter content of study. Levels consist of categories representing broad steps of educational progression from very elementary to advanced learning experiences. The classification is designed for assembling data on current educational phenomena such as enrolment, teaching staff and finances as well as for statistics of the "stock" of educated people as obtained, for example, by a census of population.

The classification of levels for social indicators purposes is shown in illustrative format 9. The ISCED classification of fields covers 21 classes, and the UNESCO Statistical Yearbook uses a condensed classification of three fields at the secondary level (general, teacher-training and vocational) and six fields at the third level. A further simplification at the third level for social indicators is the following:

- (a) Liberal arts, service trades and home economics;
- (b) Law and business;
- (c) Science and engineering;
- (d) Agriculture and other.

The main type of education of interest for indicators is known as "regular education". This is the system that provides a "ladder" by which children and young people progress from primary schools through higher education, generally beginning at age five to seven and continuing up to the early twenties. Statistics and indicators are also often needed on adult education, describing out-of-school education provided for people who are not in the regular education system.

Within these two main types of education, an additional category on which statistics and indicators are frequently wanted is "special education", which is a term describing education specifically designed for persons with various impairments. Provisions for education of impaired persons may be made within both the regular and adult systems of education.

### 1. Educational attainment and illiteracy

The series on illiteracy furnishes a direct measure of a vital skill in developing countries where basic literacy as defined by UNESCO is still incomplete. When this series is classified according to sex and age group and compared for consecutive dates or age cohorts, it portrays the trend in illiteracy.

Where basic literacy is nearly universal, more refined indicators of skills, such as degrees of functional literacy, are desirable but difficult to compile. Therefore, indicators based on educational attainment are more commonly used. The series on years and levels of schooling completed are not only indirect measures of individuals' capabilities and qualifications but also direct measures of trends for the purposes of monitoring and projecting the use of (and need for) educational services. For the latter purpose, the series on actual years or levels of schooling should be classified according to sex and age group with special attention to the younger age groups.

Because the series for the population as a whole may mask marked differences in the degrees of illiteracy and schooling of various categories of the population - urban and rural, age groups, socio-economic groups, national or ethnic groups - it is useful to classify them according to these classifications.

### 2. Enrolment and retention

The series in part D of table 2 on enrolment and retention in education are focused on the trends in the extent to which the various categories of the population who may be expected to make use of educational services in fact do so. This information is useful in identifying educationally disadvantaged groups and also in projecting the use of various types of educational facilities. Because the sex and age composition may be a factor in the proportions of specified populations enrolled, it may be necessary in some cases to standardize this composition in order to delineate trends in participation rates. The classifications shown identify the various demographic, socio-economic and geographical population groups in terms of which enrolment may be classified. Within this field of statistics, a detailed classification by level and selected fields and a broad classification by level are also useful. The latter is used for general purposes and in relation to other fields of social concern. These classifications portray the probable pattern of future additions to trained personnel and the demands on various educational facilities.

The illustrative series on the extent to which students enrolled in a given grade (year) or level of education successfully complete it provide information on the degrees of success and failure of the educational services in retaining and advancing their students. These series are also of value in projecting the demands on educational facilities. The series on numbers of students who successfully complete each level of education are also measures of the outputs of the educational services. In most cases the numbers may be compiled annually from administrative records, but the rates relative to affected population categories can only be compiled infrequently on a disaggregated basis, depending on the availability and accuracy of between-census population data classified according to the usual demographic, geographical and socio-economic categories. The expectation of educational attainment (level or grade) at the school-entrance age may be calculated infrequently on the basis of age-specific completion rates for a population cross-section. It provides a useful measure of the expected pattern of educational attainment given the current provision and use of educational services.

Information on time spent on education activities complements the participation (enrolment) series and is useful in assessing the relation between productive activity and time devoted to education. Distance of population from educational institutions of various levels is a key series in assessing the availability of various educational facilities.

### 3. Adult education and training

Adult education and training are increasingly recognized as fundamental tools of social and economic development in both developed and developing countries, and their use and effectiveness are therefore important subsidiary elements in levels of living. In UNESCO terminology, adult education can be further subdivided into formal adult education, in which participants are enrolled or registered, and non formal adult education, in which they are neither enrolled nor registered.

Because of the wide variety of programmes and institutions involved in adult education, even considering only formal activities, available data for indicators at national and international levels are seriously inadequate. Time-use surveys are a valuable source of standardized data on this subject for various population groups but shed little light on specific programmes or fields. Comprehensive data could in principle be gathered from enterprises, educational institutions and households through sample surveys, but few examples of such work are available. Accordingly, the short- to medium term possibilities of preparing indicators on these topics, though they are important ones, are limited.

### 4. Educational personnel and expenditures

The illustrative series on teachers refer to an important factor in the adequacy and cost of educational services. Classification by level of education completed by teachers and according to the level and fields in which they are teaching provides additional information on the adequacy of the teachers' preparation for the level and field in which they are engaged. Geographical classification provides information on additional variations in the adequacy of educational services.

The series on total, per capita and per student consumption expenditures on education are designed to view the trends in the volume of resources devoted to educational services classified by level, where possible, and institutional sector. Such data should, however, be carefully compiled using appropriate concepts from national accounting to ensure reliability and consistency in the results. 85/

Information on consumption expenditure may be combined with other measures of inputs and outputs to yield information on unit costs in current or, preferably, constant prices. Information on private consumption expenditure for education, where substantial, classified if possible by socio-economic group, is important in assessing the relative direct cost to households of their participation in educational activities.

#### F. Economic activity and population not economically active

Satisfactory employment and participation in economic activity is a fundamental field of social and economic interest. For this purpose, the interest and capabilities of individuals to participate in the production of goods and services should be fully engaged, they should enjoy employment security and acceptable working conditions and they should receive adequate compensation. These conditions are fostered by the existence of a healthy, diverse economy in both urban and rural areas and the provision of training programmes to provide appropriate and sufficient occupational skills to meet evolving requirements.

##### 1. Labour force participation and the population not economically active

The illustrative series in part F of the table on labour force participation and the population not economically active are designed to monitor a number of conditions of participation in economic activities. It is particularly important that these series be based on good data on men's and women's participation. There are often particular difficulties in identifying economically active women, and the stereotype that women are usually confined to home-making duties can result in a serious loss of data on women's economic activity. This problem seems to be most pronounced in rural areas, where most households are engaged in agriculture and the contribution of women and their daughters as unpaid family workers in agriculture is easily overlooked, but it can also occur in urban areas, where modern labour-force conditions are changing the traditional roles of women.

Series on the number and proportion of the population who are economically active are needed to monitor the trends in the extent to which individuals' capabilities are engaged in production, to identify some of the circumstances underlying differences in participation rates and to project the size of the labour force, based on the estimated size and composition of the population. The series on labour force growth and entrants are designed to monitor important flows into the labour force and particularly to assist in projecting requirements for new jobs.

Series on average expected years of working life are useful measures of employment patterns as well as of earning opportunities and security. Poorer employment opportunities and security may lead to leaving the labour force earlier and to lower participation rates prior to retirement age.

Series on numbers, proportions and characteristics of population not in the labour force (the population not economically active) may be used to identify population categories which are of concern for social policies with respect to employment, education, social assistance and other programmes.

These series give a useful indication of the major activity and status of persons not economically active, but care should be taken to ensure that these data are not misinterpreted as showing the total size of the various sub-categories, such as home-makers and students. Economically active persons are not classified if they engage in even a minimal amount of economic activity or are unemployed, even though they may also be active as home-makers, students and so on.

## 2. Employment and unemployment

The series on the number of unemployed assesses the presence or lack of employment opportunities and security in the case of various categories of the population and some of the characteristics of those affected. The series on the duration of unemployment indicates continuity of employment and severity of unemployment.

The series on the duration of unemployment may be used in conjunction with the classification of "visible" underemployment (working part-time and available for additional work), income and level of educational attainment relative to occupation to derive measures of underemployment that are appropriate in developing countries.

## 3. Employment compensation

Employment compensation rates and income are fundamental to job satisfaction and, in most cases, to enjoying an adequate level of living. In order to furnish useful indicators to monitor this aspect of welfare, it is necessary to portray the range of wage and salary rates and compensation received, in constant as well as current prices, for various groups of the labour force. Thus in the illustrative series, wage and salary rates and compensation according to sex and age group are shown for percentile groups of employees as well as branch of economic activity, time employed and so on, and distribution of compensation is also shown by percentile groups. The level as well as the distribution of employment income may differ significantly among these groups.

## 4. Working conditions and training

The series on working conditions refer to aspects of working conditions that are often the subject of general concern. The series on average hours of weekly work may be used to monitor the place of employment in individuals' use of time. The series on the frequency and severity of occupational injuries are essential to assessing the dangers (safety) and impact of working conditions on health. For this purpose it is useful to classify the series according to broad categories of the occupational and branch of economic activity classifications. Classifications according to sex and age group may indicate factors which affect the incidence of occupational injuries and deaths. The series on the scope of social security and similar schemes and on paid vacations and other leaves for employees may be used to portray important fringe benefits in employment.

Many governments and enterprises provide training programmes to improve the employment security and productivity of the economically active and to assist new entrants to the labour force. These are also considered an essential part of ensuring satisfactory employment compensation and working conditions over the long term.

#### G. Socio-economic groups and social mobility

Concerns about composition of the population according to socio-economic groups relate to the division of the population by major differences in social category and overall changes over time, the extent to which individuals move from one category to another during their lifetimes and the extent to which changes in social position occur from one generation to the next.

##### 1. Socio-economic groups and changes over time

In general, it is necessary to use indirect measures to assess the extent to which a society is divided into distinct social groups. The illustrative series shown in table C deal with circumstances which, in combination, are thought to be associated with common life-styles and patterns of living conditions in general and thus to manifest social groupings. The percentage distributions of households and individuals are shown classified according to categories of national or ethnic origin and urban and rural areas, in addition to that of the population as a whole, in order to portray the extent to which members of these groups fall into the various social groups.

##### 2. Intra- and inter-generational mobility

Fewer aggregates are shown for purposes of assessing intra-generational mobility than portraying social groupings because of the difficulties of gathering and compiling the data that are required for the latter purpose. The extent to which shifts occur is indicated by the proportion of the universe in question that move from one group to another. Another approach to measuring intra-generational mobility is to correlate the occupations or wages and salaries of the same sample of employees, or the distributed factor incomes of a sample of households, at two dates. A correlation coefficient that is negative or close to zero implies high intra-generational mobility.

The series shown for purposes of measuring inter-generational mobility are restricted to changes in socio-economic group and education from one generation to the other. It should be noted that differences in socio-economic group and in years of schooling between parents and children may reflect two factors - changes common to the population as a whole and those of individuals greater or less than this average. The variance around the average difference between parents and children is therefore an appropriate measure of inter-generational mobility. As with intra-generational mobility, inter-generational mobility may appropriately be measured by the correlation between the state of the son or daughter and that of the father or mother, respectively. This measure of mobility is similar to the variance around the average difference. As in the case of intra-generational mobility, the series under discussion are shown with classifications by urban/rural and socio-economic group to assess the degree of inter-generational mobility of these various groups.

## II. Income, consumption and wealth

The size of the incomes, consumption and wealth of various groups of the population is the subject of general social concern in its own right and in relation to many other fields of social concern. The population's income and wealth are key factors in determining levels of living, and consumption of goods and services is itself a major component of these levels. The distribution of income, consumption and wealth is also a matter of major concern in terms of the extent of equality or inequality and resulting inadequacy of income and consumption in the case of some groups of the population. Government taxes and services also have substantial effects on distribution of income and consumption, and these effects are also the subject of general attention. The United Nations has issued Provisional Guidelines on Statistics of the Distribution of Income, Consumption and Accumulation of Households.<sup>67/</sup> The discussion below of series in this field is based on these guidelines.

A related general issue of public policy which analysts, policy-makers and the general public wish to address is the overall social and economic roles of government, such as, for example, the size of government relative to the economy as a whole. As a reasonable approximation to measure this concern, two indicators are suggested here - the percentage of direct taxes in household income and the percentage of government final consumption expenditure in total output.

### 1. Levels, growth and composition of household income

The flows of major interest in monitoring the size and growth of incomes from the point of view of levels of living are total household income and its major components - income from participating in production and current transfers and other benefits received - and total available household income - total household income less direct taxes, social security and pension fund contributions.

As the focus of attention is the adequacy and range of incomes of key categories of the population, the series in section G of the table on the main aggregates under discussion are shown with classifications according to the usual demographic, geographical and socio-economic classifications. The categories of the population that should be classified are those that may be expected to differ in the adequacy and distribution of incomes. In general, the household is the unit to which the series refer since the household is the practical unit for this purpose. However, as the adequacy of a given level of household income is also commonly considered on a per capita basis, some series are shown per capita. As the real import for levels of living of these aggregates depends on their purchasing power for goods and services, it is also preferable to value the aggregates in constant rather than current prices where feasible. For the purpose of monitoring changes in levels of income and accumulation, it is essential to express the data in constant prices.

### 2. Level, growth and composition of consumption

The illustrative series on the level of household consumption relate to money values in the case of all goods and services, supplemented by the series on ownership of selected assets. Two concepts of household consumption are used in the series: consumption expenditure of households - outlays from total available

household income, including in kind consumption from own production, and total consumption of the population, that is, personal consumption plus the value of goods and services furnished free of charge by governments, employers and the like. The latter concept yields a more comprehensive measure of levels of living. In order to facilitate comparisons of consumption with available income the same classifications are shown. Valuation in constant prices is essential to analysis trends in the level of consumption.

### 3. Distribution of income and consumption

The series on this topic are primarily designed to portray the impact on the levels of living of various population groups of government programmes which affect earned incomes or furnish free or subsidized goods and services, and the extent of inequality. The measures of these effects cover annual unadjusted current transfers and the ratios of available income to total household income and of final consumption expenditure of households to total consumption of the population.

Lorenz curves may be used to assess the degree of inequality in the distribution of income and consumption as measured by any of the aggregates discussed above. The curves accumulate the percentage of the aggregate in question, accounted for by percentile groups of households (or individuals), proceeding from the lowest to the highest percentiles. Using Lorenz curve information, various indicators of inequality may be constructed. The Gini ratio is one such measure and is calculated according to the difference between the actual distribution and complete equality. Simple percentages and ratios of income going to upper and lower percentiles are also commonly used.

### I. Social security and welfare services

Provision of protection and benefits to cover serious income losses because of old age, unemployment, disability and the like and to ensure special welfare services, largely those to help particular population groups including children, the sick, disabled persons and the elderly, is a common concern of Governments. The illustrative series on this subject set out in part I of table 2 are designed to monitor and assess the extent of insurance provided by a society against losses of income and other hazards and the calls on, and adequacy of, the various forms of protection. The series on the first topic deal with the proportion of persons subject to loss of income or other hazards who are covered by a corresponding insurance programme; the series on the second topic relate to the proportion of persons covered under given programmes who receive benefits, to the magnitude of these benefits, preferably in terms of constant purchasing power, and to the proportion of the available income of the recipients accounted for by these benefits.

### C. Leisure and culture; communications

The ways in which leisure is used and the access to and use of leisure and cultural goods, services and facilities and communications are important components of levels of living and well being of different socio-economic groups and are closely related in the population's satisfaction and aspirations concerning levels of living.

## I. Use of leisure

The series and classifications in part J of the table on the uses to which leisure time is put represent different approaches to this topic. The first two series summarize data on the use of leisure that would be gathered through inquiries into time use. The third series deals with vacation periods.

## 2. Leisure and cultural activities, facilities and expenditures; communications

There are many kinds of leisure and cultural facilities, the availability and use of which are of particular interest. A substantial number of illustrative series on this topic is therefore shown in subsection J.2 of the table. Where appropriate, the series cover the number, capacity and use of different types of facilities. In other cases the series give information on the participation of different population groups in social and cultural activities or show trends in, for instance, the number of seats per 1,000 population of different leisure and cultural establishments such as cinemas, theatres, concert halls.

Other series deal with outlays on leisure-related services and goods. These data are more commonly gathered and compiled than information on time use. The series on final consumption expenditures, in constant prices, are designed to yield summary information on trends in the composition and volume of expenditure on leisure and cultural goods and services of the population.

The second and third series deal with consumption outlays on leisure-related services and goods. The series on household consumption, in constant prices, is designed to yield summary information on trends in the pattern and volume of consumption of leisure goods and services of the population.

## K. Public order and safety

Public order and safety are fundamental concerns of Governments. To monitor and assess these broad concerns, series and indicators are needed on the prevalence and severity of criminal offences and victimization, the treatment of offenders and their characteristics and the resources used for the maintenance and improvement of public order and safety.

### 1. Frequency and severity of selected offences and victimization

The illustrative series on the incidence of criminal offences are designed to portray the extent to which these offences are concentrated in certain communities and also their character and gravity. The series on victimization may be used in monitoring and assessing the safety of various segments of the community and also the gravity of criminal offences. Series are therefore shown classified according to the characteristics of the victims as well as the kind and severity of the injuries and losses.

## 2. Characteristics and treatment of offenders

Basic statistics on the treatment and characteristics of offenders are normally derived from the records of the criminal justice institutions that deal with them but may in some cases be supplemented with data from direct interviews with offenders.

The series on this topic shown in part K of table 2 are intended to portray the principal aspects of the treatment of offenders and their characteristics as they are charged with an offence, pass through the judicial and correctional steps and are released. The series on offenders charged is designed to indicate the prevalence in various groups of the population as well as the gravity of the charged offences. The series on the conviction and sentencing of charged offenders should be of assistance in correlating these steps in the judicial process with the character of the offenders and their charged offences. The series portray the patterns in which the courts dispose of charged offenders. The summary data on rates of incarceration and of probation indicate the relative extent to which these modes of correctional treatment are used in the case of various categories of sentenced offenders. Their number in correctional institutions or on probation measures the demand for these services.

## 3. Institutions, personnel and performance

The first series on this topic shown in subsection K.3 of the table is designed to exhibit the pace at which the police and judicial authorities dispose of persons charged. The series on persons engaged in public order and safety activities indicates the absolute and relative commitment of labour force resources to this field of concern.

Table 2. Illustrative series, classifications and data sources for social indicators

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>A. Population composition and change</b>	
1. <u>Size and structure of the population by age group and sex</u>	
Size of the population and numbers and percentage distributions by age group and sex, average age	See illustrative format 1
2. <u>Population by national or ethnic group</u>	
Numbers and percentage distribution by national or ethnic group, national, urban and rural or major cities	Population census
3. <u>Population growth by age group and sex and components of population growth - births, deaths and international migration</u>	
Annual rates of change, each age group and national or ethnic group, and total population	See illustrative format 1, civil registration, demographic surveys, population census benchmarks
Rates of international immigration and net international migration, by age group, sex and national or ethnic group	Administrative data on migration, sample surveys of passengers, demographic surveys, benchmark estimates from population census data
Births and crude birth rate by age of mother and national or ethnic group	Civil registration, demographic surveys
Deaths and crude death rate	Civil registration, demographic surveys, benchmark estimates
<b>B. Human settlements and housing, and geographical distribution of population</b>	
1. <u>Geographical distribution of population and changes in distribution</u>	
Total and percentage distribution of population by urban, rural and major cities; national level and for each geographical region	See illustrative format 3

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>1. Geographical distribution of population and changes in distribution (continued)</b>	
Number and percentage distributions of population by sex and age groups, urban, rural and major cities	See illustrative format 3
Total and percentage distribution of population by size of locality and geographical regions	See illustrative format 2
Annual rates of change, population in urban and rural areas and cities by age group and sex and geographical regions	See illustrative format 3
<b>2. Land use</b>	
Total and percentage distribution by type of land use	See illustrative format 4
Total surface area per capita and forest land per capita	See illustrative format 4
Agricultural land per rural inhabitant and per agricultural worker	See illustrative format 4
Urban and major cities' built-up areas per inhabitant; cities' recreational areas per inhabitant	See illustrative format 4
<b>3. Stock of housing and additions to stock</b>	
Number and percentage distributions of population in conventional and marginal housing, collective living quarters and homeless, urban, rural and major cities	See illustrative format 5A
Average number of rooms and average persons per room (or surface area per dwelling and per capita) in conventional and marginal housing, urban, rural and major cities, socio-economic group	See illustrative format 5A
Conventional dwellings constructed annually, number and rate per 1,000 existing housing units, and per 1,000 population, national and urban or urban and major cities only	See illustrative format 5B

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
3. Stock of housing and additions to stock (continued)	
Index number of conventional dwellings constructed annually	See illustrative format 5B
Characteristics of conventional dwelling constructed annually:	See illustrative format 5B
average number of rooms and surface area percentage with piped water inside percentage with toilet inside percentage with electric lighting	
4. <u>Tenure and expenditure on housing</u>	
Percentages of housing units:	See illustrative format 5B
owner-occupied illegally occupied ("squatters") urban and rural and large cities	
Gross rent, fuel and power (total), per capita and per household; as percentage of total household income and GDP; percentage in-kind (net); urban and rural and/or major cities	See illustrative format 1B
5. <u>Household water and sanitation</u>	
Number and percentage of housing units without:	See illustrative format 5A
piped water inside piped water inside or outside toilet inside	
Urban and rural and major cities	
6. <u>Household energy consumption</u>	
Percentage of housing units without electric lighting, urban/rural and/or major cities	Basic data table 5A
Total and per capita consumption of:	Energy balances
petroleum products and gases electricity traditional fuels (by weight and energy output) total (foules)	

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>7. Personal transportation</b>	
Number and rates of private cars per 1,000 population, national and major cities	Registration records
Percentage of households with private cars, urban and rural and major cities	Household surveys
<b>8. Climate</b>	
Extreme northern and southern latitudes of country on land	Cartographic administration
For principal monitoring station(s):	Meteorological
Average annual precipitation, historical and each of last 5 years	administration
Average annual sunny days, historical and latest year(s)	
Months and levels of highest and lowest average temperature, historical and latest year	
Latitude and elevation	
<b>C. Households and families: marital status, fertility</b>	
<b>1. Household size and composition</b>	
Number and percentage distribution of households by size, and with children under age 15 by male and female heads, and average size, urban and rural	See illustrative Format 6
Percentage distribution of population in households by size, with children under age 15 by male and female heads, activity status of head, and elderly living alone, urban and rural	See illustrative Format 6
<b>2. Marital and family status: marriage and divorce</b>	
Numbers and percentages of persons not currently married, age group and sex, urban and rural	See illustrative Format 7
Numbers and rates of marriages and divorces, sex and age group, urban and rural and/or major cities	See illustrative Format 7

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>3. Fertility</b>	
Total fertility rate, urban, and rural	Estimates based on civil registration, demographic surveys and population censuses
Annual births by age group, marital status and economic activity status of mother, urban and rural and major cities	Civil registration and demographic surveys
<b>D. Health and health services: impairment and disability; nutrition</b>	
<b>I. Health status - mortality and morbidity</b>	
Number and rates of death, sex and age group, urban and rural, cause, national or ethnic group, socio-economic group	See illustrative format 8
Percentage distribution of deaths by age group and sex, cause	See illustrative format 8
Expectation of years of life, selected ages, sex	Demographic estimates based on life tables
Number and/or incidence of selected communicable diseases of public health importance, sex and age group, urban and rural and major cities	Disease notification records and estimates
<b>2. Impairment and disability</b>	
Number and proportion of persons with selected impairments and disabilities, sex and age group, cause, urban and rural	Population censuses, surveys and registers
<b>3. Health services and resources</b>	
Number and rate per 1,000 population of physicians and trained health personnel by geographical region	See illustrative format III
Number and percentage of labour force in health services	See illustrative format III
Percentage of births with trained attendants, urban and rural and major cities	Health services records, special surveys

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>3. Health services and resources (continued)</b>	
Immunization against specified diseases, age group and sex, urban and rural and major cities	Health services records, household surveys
Number and proportion of persons visiting trained health personnel, specified period, by sex and age group, urban and rural and major cities, geographical region	Household surveys
Percentage of GNP for health services, total and government and private separately, and percentage distribution	See illustrative format 13A
Levels and index numbers of government and private final consumption expenditure for health services and primary health care services, current and constant prices	See illustrative format 13A
Total and per capita total and household consumption expenditures on health services, geographical region, percentile groups of households according to total household income	See illustrative format 13A
<b>4. Nutrition</b>	
Food supplies and consumption; malnutrition: per capita supply of calories and protein per capita supply as a percentage of minimum per capita requirements	Food balance sheets
percentage of population consuming below minimum per capita requirements, age group and sex, urban and rural and major cities	Food consumption surveys and estimates
net food imports as a percentage of total food consumption	Food balance sheets
percentage of women with nutritional anaemia, pregnant, non-pregnant, urban and rural and major cities	Special surveys
percentage of births below 2,500 grams, urban, rural and major cities	Health services records or special surveys

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>4. Nutrition (continued)</b>	
low weight for age, age group and sex, urban and rural	Household surveys, primary health care centres
low height for age, age group and sex, urban and rural	Household surveys, primary health care centres
excess weight for age, age group and sex, urban and rural	Special surveys
per capita production of alcohol and tobacco consumption by age group and sex	Population surveys and production and international trade records
percentage of population not currently smoking, age group and sex	Population surveys
<b>E. Learning and educational services</b>	
<b>1. Educational attainment and illiteracy</b>	
Numbers and percentages of illiterates, by age group and sex, urban and rural, socio-economic group, national or ethnic group	See illustrative format 9
Years or levels of schooling completed, by sex and age group, urban and rural, national or ethnic group, socio-economic group	See illustrative format 9
<b>2. Enrollment and retention</b>	
Numbers and proportions enrolled in regular education by level and field, age group and sex, major cities, geographical region	See illustrative format 9
Numbers and proportions of enrollees who successfully complete their grade, by sex, level, field (at third level), socio-economic group, geographical region (first and second levels), national or ethnic origin	Educational services and special surveys

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>2. <u>Enrolment and retention</u> (continued)</b>	
Numbers and rates of successful completions according to levels, by sex, socio-economic group, geographical region (first and second levels), national or ethnic origin	Estimates based on benchmark and educational services data and special surveys
Expectation of highest attainment, by sex and age group, socio-economic group, national or ethnic group	Estimates based on population census and enrolment data
Numbers enrolled in special education, by sex and age group, major cities, geographical region, level	Educational services
Time spent in educational activities, by sex and age group, major cities, level and field	See illustrative format 14
Distance of population from educational institutions, by urban and rural, geographical region, level of education	Educational services and estimates based on household surveys and population censuses
<b>3. <u>Adult education and training</u></b>	
Numbers and proportions enrolled in adult education, by sex and age group, major cities, level and field of education, occupation, institutional sector, on-the-job and independently	Special surveys; see also illustrative format 14
Numbers participating in non-formal adult education, by sex and age group, major cities, field	Special surveys; see also illustrative format 14
<b>4. <u>Educational personnel and expenditures</u></b>	
Number of full-time equivalent teachers engaged, by level of education and sex of teachers, level and field of education at which engaged, major cities and geographical regions	Educational services; see also illustrative format 13A
Government final consumption expenditure on education, current and constant prices, by level of education, total, per capita and per student	See illustrative format 13A

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
4. <u>Educational personnel and expenditures</u> (continued)	
Private consumption expenditure on education, current and constant prices, by urban and rural, socio-economic group, total and per capita	See illustrative format 13A
F. <u>Economic activity and population not economically active</u>	
1. <u>Labour force participation and population not economically active</u>	
Number and rates of labour force participation, by age group and sex, industry, occupation, status in employment, urban and rural	Illustrative format 10
Annual rate of change of labour force, by age group and sex, industry, occupation, status in employment, urban and rural	Illustrative format 10
Number and rate of entry into labour force each year, by age group and sex	Estimates based on labour force, demographic and educational trends
Expected years of working life, by age group and sex, level of educational attainment, socio-economic group, urban and rural	Estimates based on benchmark data on social and economic characteristics
Number and proportion of population not in the labour force, by age group and sex, urban and rural, activity status	Illustrative formats 10 and 11B
2. <u>Employment and unemployment</u>	
Number and proportion of labour force unemployed, by age group and sex, industry, occupation, status in employment, level of educational attainment, urban and rural, socio-economic group	Household surveys
Average duration of unemployment, by age group and sex, industry, level of educational attainment, urban and rural	Household surveys, unemployment registers

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>3. Employment compensation</b>	
Total and per employee wages and salaries in current and constant prices, specified periods, by age group and sex, major cities or regions, branch of economic activity or occupation	Household and economic surveys
Total and per employee compensation in current and constant prices, specified periods, by age group and sex, major cities or areas, branch of economic activity, or occupation, percentile groups of employees according to compensation	Household and economic surveys
<b>4. Working conditions and training</b>	
Average hours of work per week, full-time and all employees, by sex, urban and rural	Economic surveys; see also illustrative format 14
Rate per employee of temporary disabling injuries and days of bed disability or restricted activity per injury, by age group and sex, occupation, branch of economic activity	Industrial accident reporting systems, household surveys
Rate per employee of permanently disabling injuries and deaths, by age group and sex, occupation	Industrial accident reporting systems, household surveys
Proportion covered by social security and private pension, insurance and similar welfare schemes, of those engaged at specified dates, by age group and sex, occupation, branch of economic activity	Economic surveys
Proportion receiving paid vacations, holidays and sick leaves and average number of days of each type of leave, employees during specified periods, by age group and sex, occupation, kind of economic activity, socio-economic group	Economic surveys, household surveys; see also illustrative format 14
Number and proportion enrolled in training programmes during specified periods, by age group and sex, occupation, branch of economic activity	Economic surveys, household surveys; see also illustrative format 14

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
G. Socio-economic groups and social mobility	
1. Socio-economic groups and changes over time	
Percentage distribution of number of households and persons according to socio-economic group, urban and rural, national or ethnic origin	See illustrative format 12
Decennial percentage changes in size and percentage distribution of socio-economic groups, urban and rural	See illustrative format 12
2. Intra- and inter-generational mobility	
Proportion with changes in occupation and average number of changes per person, identical cohorts at two dates, by age group at first date, sex, urban and rural	Household surveys, record linkage over time and longitudinal studies
Proportions of sons or daughters 25 years of age and over of socio-economic group different from their fathers or mothers at the same age, by age group of sons or daughters, urban and rural	Household surveys
Percentage distribution of sons or daughters 25 years of age and over according to ratios between their and their fathers' or mothers' years of schooling completed, urban and rural	Household surveys
H. Income, consumption and wealth*	
1. Level, growth and composition of household income	
Primary income per household and per capita, by sex and age group, urban and rural, type of household, number of earners, level of education, socio-economic group	Household surveys and national accounts
Total household income per household and per capita, urban and rural, by type of household, number of earners, socio-economic group	See illustrative format 13A; household surveys and national accounts

\* All series should be given in current and constant prices, to the extent possible.

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
1. <u>Level, growth and composition of household income</u> (continued)	
Total available household income per household and per capita, urban and rural, by level of education, type of household, number of earners, socio-economic group	See illustrative format 13A
2. <u>Level, growth and composition of consumption</u>	
Final consumption expenditure of households, total and selected categories of goods and services, per household and per capita, urban and rural, by percentile groups of households according to total household income, socio-economic group	See illustrative format 13A
Total consumption of the population per household and per capita, total and selected categories of goods and services, urban and rural, by percentile groups of households according to total household income	See illustrative format 13A
Percentage of households owning selected assets, urban and rural, by percentile groups of households according to total household income, socio-economic group	Household surveys
Percentage of consumption produced on own-account, urban and rural, by socio-economic group	Household surveys
3. <u>Distribution of income and consumption</u>	
Current transfers and other benefits, urban and rural, by percentile groups of households according to total household income:	See illustrative format 13A
payments per household and per capita receipts per household and per capita net per household and per capita	
Ratio of available household income to total household income, urban and rural, by percentile groups according to total household income	See illustrative format 13A
Ratio of household final consumption expenditure to total consumption of the population per household and per capita	See illustrative format 13A

Table 2 (continued)

Illustrative series and classificationsData sources3. Distribution of income and consumption (continued)

Lorenz curves (households): total household income, total available household income and/or final consumption expenditures of households, urban and rural

See illustrative format 13B

I. Social security and welfare services1. Scope of protection against loss of income

Proportion of persons and households at risk covered by social security and similar schemes by type, sex and age group, urban and rural, type of household, institutional sector, socio-economic group

Economic surveys and household surveys

2. Use and magnitude of protection against loss of income

Proportion of potentially eligible persons and households receiving social insurance, social assistance and similar benefits by the type of programme and average benefits per person and per household in current or, preferably, constant prices, by sex and age group, urban and rural, type of household, institutional sector, socio-economic group

Household surveys

Total and per capita expenditures for social insurance, social assistance and similar benefits, by institutional sector

Special economic surveys and estimates

Ratio of annual annual insurance, social assistance and similar benefits to total household income, all households and households receiving benefits, urban and rural, by type of household, institutional sector, percentile groups of households according to total household income

Household surveys; see also illustrative Format 13A

Number and proportion of population resident in welfare institutions, by sex and age group

See illustrative format 4

Total and per resident expenditures of welfare institutions in current or, preferably, constant prices

Special administrative surveys

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
J. <u>Leisure and culture: communications</u>	
1. <u>Use of leisure</u>	
Proportion of persons devoting time to selected social and cultural activities, by age group and sex, activity status, urban and rural, socio-economic group	See illustrative format 14
Amount or percentage of time spent on various social and cultural activities, by age group and sex, urban and rural, socio-economic group	See illustrative format 14 and household surveys
Proportion of persons with vacation time during year, and average amount of time, by age group and sex, urban and rural, socio-economic group	Household surveys
2. <u>Leisure and cultural activities, facilities and expenditures: communications</u>	
Recreational land in built-up areas as a percentage of all land in built-up areas and in specific cities, and per capita of urban populations, and of populations of major cities	See illustrative format 4
Percentages of GDP for government consumption and capital expenditure on recreational, cultural and religious activities and private expenditure on communication, recreation and cultural goods and services, and total	See illustrative format 13A
Levels and index numbers of government and private final consumption expenditures on culture and recreational goods and services, constant prices	See illustrative format 13A
Number of seats in cinema, theatre, concert hall, sports stadium and similar leisure and cultural facilities and ratios per 1,000 population, urban and rural or major cities	Special surveys
Number, frequency distribution and per capita rate of admissions in the population, selected leisure and cultural facilities during specified periods, urban and rural or major cities, institutional sector	Special surveys

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>2. Leisure and cultural activities, facilities and expenditures; communications (continued)</b>	
Number, frequency distribution and per capita rate of newspaper and magazine circulation in the population	Special surveys and household surveys
Number and per capita rate of book production and of holdings of public libraries	Special surveys
Number and proportion of population active in selected social and cultural activities, by sex and age group, urban and rural	Household surveys
<b>3. Communications facilities</b>	
Proportion of households with selected leisure durable goods, urban and rural, by percentile distribution of households according to total household income or socio-economic group	Household surveys
Proportion of households with telephone service in their housing units	Household surveys or estimated
<b>E. Public order and safety</b>	
<b>1. Frequency and severity of selected offences and victimisation</b>	
Number of selected offences and rate per capita, urban and rural or major cities	Police records
Number of human victims injured or killed and rates, by age group and sex, urban and rural or major cities	Police records, victimisation surveys; see also illustrative format J
Number and proportion of persons or households with property loss and total and average value of loss, specified periods, urban and rural or major cities	Police records, victimisation surveys
Number of institutional (non-human) victims with property loss and rates in total population, total and average value of loss, urban and rural or major cities	Police records, special surveys

Table 2 (continued)

<u>Illustrative series and classifications</u>	<u>Data sources</u>
<b>2. Characteristics and treatment of offenders</b>	
Number of offenders charged and their proportion in the population, by age group and sex, major cities	Criminal justice records
Proportion of offenders charged who are found guilty, specified periods, by age group and sex, major cities	Criminal justice records
Percentage distribution of persons found guilty according to disposition, by age group and sex, major cities	Criminal justice records
Number of persons held in correctional institutions and their proportion in the population, by age group and sex	Institutional surveys; see also illustrative format 6
Number and proportion of sentenced persons on probation, by age group and sex	Criminal justice records
Persons released from detention and average duration of detention during specified periods, by age group and sex	Institutional surveys
<b>3. Institutions, personnel and performance</b>	
Proportion of reported selected offences during specified period cleared up by police authorities by specified later period, urban and rural or major cities	Criminal justice records
Average elapsed time from charge to disposition, initial judicial verdicts during specified periods, by type of charge	Criminal justice records
Number and proportions of population engaged in public order and safety activities, urban and rural and major cities, public and private	See illustrative format II B

## V. FUTURE DIRECTION OF WORK

The following discussion is based on the report of the Secretary-General on the future direction of work on social indicators (E/CN.3/1985/3) to the Statistical Commission at its twenty third session and the Commission's comments on it.

In reviewing work on social indicators over the last 10 years, the following general features stand out:

- (a) The majority of developed countries, both centrally planned and market oriented, have maintained ongoing commitments to work on indicators, usually in the form of compendiums issued every one to three years and, in a few cases, such as Australia, Canada and Sweden, through publications series on social statistics and levels of living, containing several volumes per year;
- (b) In those developed countries most active in the field, household surveys are by far the most important source of data on levels of living. Apart from the Nordic countries, there has been limited progress in the development or use of integrated statistics from other sources for indicators;
- (c) There is considerable intergovernmental interest and work by international organizations on indicators, to monitor and assess levels of living, social development and living conditions, mainly but not exclusively concerning developing countries;
- (d) In spite of this interest at the international level, a minority of developing countries have developed ongoing programmes on social indicators for the purposes mentioned in (c);
- (e) The most active and universal interest in social indicators at present at both national and international levels concerns the development of indicators on women and other population groups, such as children, youth, elderly and disabled, and in special fields of international concern, namely rural development, primary health care and water and sanitation. The United Nations has undertaken extensive programmes on development of statistics and indicators on women and other special population groups following the framework of the preliminary guidelines on social indicators, as described at the beginning of the present study.

Much of the present Handbook has been concerned with one of the most difficult problems in the development of social indicators, that is, the difficulties of harmonizing and integrating basic data sources. Substantial experience in the use of basic sources has accumulated slowly but steadily over the last decade, and there is now a fairly detailed understanding of the advantages, disadvantages and potential of each, as noted throughout the Handbook. However, this analysis confirms that there is no easy way to bring together indicators from disparate and often intractable primary data. That has apparently been a basic discouragement to those who had hoped that social indicators methods would somehow simplify the development of social statistics. Rather, experience has amply demonstrated that social indicators can help to focus and direct social statistics, and simplification of certain statistical outputs and clarification of underlying concepts are important parts of that process. However, that process remains difficult and complex and indicators do not offer any shortcuts in basic data collection.

At the same time, with due caution about how much and how quickly statistical organization can or should change, elements of fundamental changes in social statistics work have recently been appearing. Those elements have included the computerization of basic data, record linkage or longitudinal studies, the expansion of household surveys, policy demands for integrated socio-economic monitoring and assessment and the inexpensiveness and portability of user-oriented data base technology. Naturally, the pace and impact to date of each of these elements of change has differed widely by country, and significant changes, like all statistical development efforts, will require substantial experimentation and investment before they can be successfully implemented. Automated data processing, for example, is still far from routine in many developing countries and in many fields, and household surveys, while expensive and often ineffective when undertaken piecemeal, still require substantial resources, organization and commitment to meld into an overall ongoing programme of the desired scope, coverage and frequency.

However, in spite of these and other difficulties, including resource limitations which in many countries are quite severe, the direction of change is clear and the speed of change has been relatively rapid. Overall, there is an increasing trend towards transparency between the statistics and users, and statisticians themselves have been among the users who, with the aid of computers, are becoming much more able to rearrange, select and otherwise manipulate the basic data, a process which is the essence of social indicators work.

Another basic feature of social indicators work has been the need to strengthen links between users and producers of statistics and among producers in different specialized fields. Because of their intended policy relevance and general audience, indicators emphasize overall trends, often using estimates and projections, simplified presentation, as in graphics, and within-nation and international comparisons. The choice, organization and policy orientation of subject-matter and the selection and specification of indicators thus require substantial communication and elaboration of common concepts and objectives among users and producers. Virtually all social indicators programmes at national and international levels have started with assumptions or suppositions about desired subject-matter coverage, with minimal regard to the usual disciplinary or ministerial lines or the organization of statistics according to sources. Comparisons, policy-relevant monitoring and assessment, simplification and crossing of subject and ministerial boundaries have all raised difficult problems for the development of integrated social statistics and indicators.

The co-ordination of international compilation and dissemination of social indicators has posed similar, difficult problems. The international statistical services are relatively decentralized, while indicators are multi-source and multi-subject. Each international agency has national statistical contacts in its own sphere of competence, and there is no regular mechanism at the technical level for co-ordinating international requests for data covering various fields. Thus countries' abilities to respond to requests for indicator series that must be compiled for various fields and from diverse sources are often quite limited, and problems of comparability are exacerbated when different sources are used by different countries, or even by the same country, in responding to different requests. The summary nature of the indicators sought has also led to widely varying interpretations of what exactly was desired in a statistical sense.

Intergovernmental discussion has in many cases helped to clarify the kinds of policy-relevant issues indicators should address and, in turn, has stimulated the more precise specification of indicators to meet those needs. The process has been a slow one, as the development of concepts and methods as well as of data has involved a great deal of dialogue between producers and users of statistics, testing and analysing of concepts and definitions in the field and analysing their relevance in terms of systematic conceptual frameworks, through several stages of refinement. The work of the United Nations on the development of statistics concerning women and disabled persons, discussed in chapter II, has been largely stimulated by interested users of these statistics. It illustrates how the process of conceptual review and development among users and producers can lead to sustained improvement in concepts, methods and applications of social statistics and indicators.

Development of concepts and methods for statistics and indicators is a particularly difficult task even in countries that are well-equipped with statistical resources; consequently, the international statistical services play a major role. International statistical guidelines and recommendations as well as technical studies have played an active role in assisting countries in the selection and application of methodologies even where international comparability has not been a priority issue. Thus, there is a clear need to achieve a greater degree of consolidation and agreement on basic indicators and their development for national and international purposes. The present Handbook is intended to provide a basic contribution and point of reference for national and international use in this process.

#### Notes

1/ Official Records of the Economic and Social Council, Sixty-second Session, Supplement No. 2 (E/5910), para. 105.

2/ Ibid., para. 101.

3/ Social Indicators: Preliminary Guidelines and Illustrative Series, Series M, No. 63 (United Nations publication, Sales No. E.78.XVII.8).

4/ Technical studies on the development of the framework for the integration of social and demographic statistics and on its potential application in developing countries are cited in the preface to the present publication.

5/ Work of the United Nations on measurement of levels of living in the 1950s and 1960s is cited in the preface to the present publication.

6/ See "Progress report on national and international work on social indicators" (E/CN.3/517, subsequently updated and issued as ST/BSA/STAT/102); "Progress report on national and international work on social indicators and on related concepts and classifications for general use" (E/CN.3/1983/18); "Future direction of work on social indicators" (E/CN.3/1985/3); "Progress in the development of social indicators and the integration of social, demographic and related statistics" (E/CN.3/1985/11); and "Progress in work on indicators of living standards and patterns of consumption and coordination of work on social statistics and social indicators" (E/CN.3/1987/16).

Notes (continued)

1/ "Provisional guidelines on some recommended indicators for national monitoring purposes and reporting to 1983 FAO Conference on Progress in Agrarian Reform and Rural Development" (Rome, FAO, 1982); "Common framework and format for monitoring progress in implementing the strategies for Health for All by the Year 2000" (Geneva, WHO, 1982); "Indicators for Health-for-All Strategies", World Health Statistics Quarterly, vol. 39, No. 4 (Geneva, WHO, 1986).

2/ "Second progress report on WCAARD Programme of Action including the role of women in rural development" (Rome, FAO, 1987); Evaluation of the Strategy for Health for All by the Year 2000 - Seventh Report on the World Health Situation (Geneva, WHO, 1987); and "Basic data on the least developed countries" (TD/B/AC.21/10).

3/ The System of Basic Indicators for Social Statistics (Moscow, 1976) and The System of Basic Indicators for Social Statistics: Methods of Calculation (Moscow, 1978); and The OECD List of Social Indicators (Paris, 1982).

10/ Living Conditions in OECD Countries: A Compendium of Social Indicators (Paris, 1983); and Social Indicators of the European Community (Luxembourg, Statistical Office of the European Communities, various years).

11/ Measurement and Analysis of Socio-economic Development: An Enquiry into International Indicators and Quantitative Interrelations of Social and Economic Components of Development, D. McGranahan, E. Pizaiiu and C. Richard, Report No. 85.5 (Geneva, United Nations Research Institute for Social Development, 1985).

12/ Indicators of Human and Social Development: Report on the State of the Art, N.V.S. Rao, K. Porwit and N. Beater (Tokyo, United Nations University, 1978). For the UNESCO work, see, for example, Indicators of Social and Economic Change and their Applications, Reports and Papers in the Social Sciences, No. 37 (Paris, 1977); Indicators of Environmental Quality and Quality of Life, Reports and Papers in the Social Sciences, No. 38 (Paris, 1978); Socio-economic Indicators for Planning: Methodological Aspects and Selected Examples, Socio-Economic Studies, No. 2 (Paris, 1981); Women and Development: Indicators of their Changing Role, Socio-Economic Studies, No. 3 (Paris, 1981); and Applicability of Indicators of Socio-economic Change for Development Planning, Socio-Economic Studies, No. 7 (Paris, 1984).

13/ See most recently the reports of the Conference of European Statisticians Working Party on the Framework for the Integration of Social and Demographic Statistics at its eighth and ninth sessions held in 1984 and 1987 (CES/WP.34/56 and CES/WP.34/71), conclusions of the Conference of European Statisticians Informal Meeting on Social Indicators (CES/56S), report of the ESCAP Seminar on Social and Related Statistics held in 1984 (STAT/SSRS/13), and report of the ECA Expert Consultation on a System of Socio-economic Indicators for African Planners held in 1984 (E/ECA/PSD.3/12, E/ECA/SER/PB/INDIC/12/Rev.1).

14/ Numerous examples in addition to those given in the text are listed in the progress reports to the Statistical Commission, (see 6/ above) and Studies in the Integration of Social Statistics, Series F, No. 24 (United Nations publication, Sales No. E.79.XVII.4).

Notes (continued)

15/ Statistical Indicators on Youth, Series Y, No. 1 (United Nations publication, Sales No. E/F.85.XVII.12), and "Selected Statistical Indicators on Youth 1985" (wall chart), Series Y, No. 1, Add.1 (United Nations publication, Sales No. E.85.XVII.12A).

16/ See Report of the World Conference of the International Women's Year, Mexico City, 19 June-2 July 1975 (United Nations publication, Sales No. E.76.IV.1), chap. II, sect. h, paras. 161-173.

17/ Report of the World Conference of the United Nations Decade for Women: Equality, Development and Peace, Copenhagen, 14 to 30 July 1980 (United Nations publication, Sales No. E.80.IV.3 and corrigendum), chap. I, sect. A, paras. 257-263.

18/ Report of the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development and Peace (United Nations publication, Sales No. E.85.IV.10), paras. 58, 64, 120, 122, 130, 282, 312, 317, 333 and 351.

19/ See "Report of the Expert Group on Improving Statistics and Indicators on the Situation of Women", held in New York from 11 to 15 April 1983 (ESA/STAT/AC.17/9-INSTRAW/AC.1/9).

20/ Studies in Methods, Series F, No. 32 (United Nations publication, Sales No. E.84.XVII.2).

21/ Studies in Methods, Series F, No. 33 (United Nations publication, Sales No. E.84.XVII.3).

22/ See the report of the Expert Group on Measurement of Women's Income and Their Participation and Production in the Informal Sector, held in Santo Domingo from 13 to 17 October 1986 (ESA/STAT/AC.29/8-INSTRAW/AC.3/8), and Improving Statistics and Indicators on Women Using Household Surveys, Series F, No. 48 (United Nations publication, Sales No. E.88.XVII.11).

23/ United Nations Women's Indicators and Statistics Data Base (WISTAT) on microcomputer diskettes. For further information on the availability of the data base on diskettes and related technical documentation, contact the Statistical Office of the United Nations Secretariat.

24/ "Selected Indicators on the Situation of Women 1985" (United Nations publication, Sales No. E.85.XIII.6A).

25/ Adopted by the General Assembly in its resolution 37/52 of 3 December 1982.

26/ See the report of the Expert Group on Development of Statistics on Disabled Persons, held at Vienna from 2 to 6 April 1984 (ESA/STAT/AC.18/7).

27/ Series F, No. 38 (United Nations publication, Sales No. E.88.XVII.14).

28/ Series Y, No. 2 (United Nations publication, Sales No. E.86.XVII.17).

Notes (continued)

29/ See "Development of statistics and indicators for monitoring the implementation of the World Programme of Action concerning Disabled Persons", report of the Secretary-General to the Global Meeting of Experts to Review the Implementation of the World Programme of Action concerning Disabled Persons at the Mid-point of the United Nations Decade of Disabled Persons (CSD/UA/DDP/GME/4).

30/ United Nations Disability Statistics Data Base, 1975-1986: Technical Manual, Series Y, No. 3 (United Nations publication, Sales No. E.88.XVII.12).

31/ Official Records of the Economic and Social Council, 1987, Supplement No. 6 (E/1987/19), para. 132.

32/ United Nations, Administrative Committee on Co-ordination Task Force on Rural Development, Panel on Monitoring and Evaluation, Guiding Principles for the Design and Use of Monitoring and Evaluation in Rural Development Projects and Programmes (Rome, 1984). On the use of indicators for project and programme monitoring and evaluation, the preliminary guidelines on social indicators state, "Measurement of the ultimate impact on well-being of the social services involves showing a link between states of, or trends in, a given aspect of well-being and the output of the relevant social service(s). Great care must be taken to distinguish prior conditions and trends in well-being from those actually influenced by the service or programme in question. Account must be taken of other factors and circumstances possibly influencing the aspect of well-being in question to avoid establishing spurious correlations. Thus, in the formulation of social indicators, inputs and outputs of social services should be distinguished from each other and from the conditions of well-being they may be intended to influence."

33/ Report of the World Conference on Agrarian Reform and Rural Development, Rome, 12-20 July 1979 (Rome, FAO, July 1979).

34/ See "Regional summaries of country pilot studies on socio-economic indicators" (Rome, FAO, 1983) and "Consolidated report of the expert consultations on socio-economic indicators for monitoring and evaluation of agrarian reform for rural development for Asia and the South-West Pacific, Africa, Latin America and the Near East" (ESS:Misc/B2.3).

35/ "Provisional guidelines on some recommended indicators ...", and "Socio-economic Indicators to be Used in WCARRD Reporting to the FAO Conference in 1987" (Rome, FAO, 1986).

36/ Progress report on WCARRD Programme of Action" (C83/23); see "Second progress report on WCARRD ...".

37/ These are contained in "Common Framework and format for monitoring progress in implementing strategies for Health for All by the Year 2000" (DGO/d2.1).

38/ Development of Indicators for Monitoring Progress towards Health for All by the Year 2000 (Geneva, WHO, 1981).

39/ "Evaluation of the Strategy for Health for All, 1985-1985: Detailed Analysis of Global Indicators" (WHO/HST/87.2).

Notes (continued)

40/ Numerous examples in addition to those given in the text are listed in the progress reports to the Statistical Commission (see footnote 6/ above) and Studies in the Integration of Social Statistics. . .

41/ In Canada, see "General Social Survey; Features and Status Report" (Ottawa, Statistics Canada, April 1988) and the General Social Survey Analysis Series. In Sweden, see the series Living Conditions, for example Inequality in Sweden: Trends and Current Situation, report No. 58 (Stockholm, Statistics Sweden, 1988).

42/ See From Birth to Death: The First Report of the Social Monitoring Group (Wellington, New Zealand Planning Council, 1985).

43/ Austria and Czechoslovakia: A Socio-demographic Comparison (Austrian Central Statistical Office and Federal Statistical Office of Czechoslovakia, Vienna-Prague, 1987); Sozialstatistische Daten 1986 (Vienna, Austrian Central Statistical Office, 1986); and Wolfgang Zapf, Aufsätze zur Wohlfahrtstaforschung und zur Modernisierungstheorie (Berlin, WZB, 1987).

44/ Government of Jamaica, April 1988.

45/ Organisation for Economic Co-operation and Development, List of Social Concerns Common to Most OECD Countries (Paris, 1973).

46/ CMEA, The System of Basic Indicators. . .

47/ See A Framework for the Development of Environment Statistics, Series M, No. 78 (United Nations publication, Sales No. E.84.XVIII.12) and Concepts and Methods of Environment Statistics - A Technical Report - Vol. I: Human Settlements Statistics (United Nations publication, forthcoming).

48/ However, in the OECD programme see Subjective Elements of Well-Being (Paris, OECD, 1972).

49/ Series F, No. 38 (United Nations publication, Sales No. E.74.XVII.8).

50/ Series F, No. 24 (United Nations publication, Sales No. E.79.XVII.4).

51/ See Principles and Recommendations for Population and Housing Censuses, Series M, No. 67 (United Nations publications Sales No. E.80.XVII.8), chap. I.

52/ Ibid., chap. III.

53/ Series F, No. 31 (United Nations publication, Sales No. E.83.XVII.13).

54/ See, for example, "Measuring and Analyzing Levels of Living in Developing Countries: An Annotated Questionnaire", "The Côte d'Ivoire Living Standards Survey: Design and Implementation", "The Distribution of Welfare in the Republic of Côte d'Ivoire in 1985" and "Guidelines for Adapting the LSMS Living Standards Questionnaires to Local Conditions", Living Standards Measurement Study Working Papers No. 24, 26, 29 and 34 (Washington, D.C., World Bank, 1987).

Notes (continued)

55/ The Feasibility of Welfare-Oriented Measures to Supplement the National Accounts and Balances: A Technical Report, Series F, No. 22 (United Nations publication, Sales No. E.77.XVII.12) and Concepts and Methods for Integrating Social and Economic Statistics on Health, Education and Housing: A Technical Report, Series F., No. 40 (United Nations publication, Sales No. E.86.XVII.23).

56/ Central Statistical Office (London, Her Majesty's Stationery Office), published annually.

57/ U.S. Bureau of the Census (Washington, D.C., Government Printing Office, 1980).

58/ See, for example, Survey on Living Conditions 1978 (Helsinki, Central Statistical Office, 1979).

59/ See, for example, 1980 Survey of Level of Living (Oslo, Central Bureau of Statistics, 1980).

60/ United Nations publication, Sales No. E.74.XVII.8.

61/ Series M, No. 74 (United Nations publication, Sales No. E.82.XVII.5).

62/ Principles and Recommendations ... paras. 2.117-2.118.

63/ Ibid., paras. 2.54-2.51.

64/ See Compendium of Human Settlements Statistics 1983 (United Nations publication, Sales No. E/F.84.XVII.5), pp. x-xiii.

65/ Principles and Recommendations ... para. 2.53.

66/ Ibid., paras. 1.223-1.228 and 2.62-2.69.

67/ Recommendations for the 1990 Censuses of Population and Housing in the ECE Region: Regional aspect of the world recommendations for the 1990 round of population and housing censuses, Statistical Standards and Studies, No. 40 (United Nations publication, Sales No. E.87.11.E.38), paras. 13A-139.

68/ See Improving Statistics and Indicators on Women Using Household Surveys, Series F, No. 48 (United Nations publication, forthcoming), chap. IV.

69/ See, for example, Principles and Recommendations ... paras. 2.79-2.85.

70/ International Standard Classification of Education (ISCED), UNESCO document CO9/ST/ISCED (March 1976). An abridged edition, with the same title, has been issued as UNESCO document ED/BIE/CONFINTED.35/REF.8 (July 1975). See Principles and Recommendations ... paras 2.151-2.163.

71/ Ibid., 2.151-2.163.

Notes (continued)

72/ International Standard Classification of Occupations, Revised Edition 1968 (Geneva, International Labour Organisation, 1969) and "Revision of the International Standard Classification of Occupations," resolution of the Fourteenth International Conference of Labour (annex), held in Geneva 28 October-6 November 1987 (in the Report of the Conference, Part 99, D.13).

73/ Principles and Recommendations ..., paras. 2.206-2.207.

74/ See "Development of the United Nations System of National Accounts and related statistical classifications to take account of women's participation and production in the informal sector; project of the INSTRAW work programme on women and the informal sector of the economy; report and recommendations", working paper of the International Research and Training Institute for the Advancement of Women and the Statistical Office, Department of International Economic and Social Affairs of the United Nations Secretariat.

75/ A System of National Accounts, Series F, No. 2, Rev.3 (United Nations publication, Sales No. E.69.XVII.3), table 5.1.

76/ Recommendations for the 1990 Censuses of Population and Housing ..., paras. 107-112.

77/ A technical report on time use and valuation of informal economic and non-economic activities will be issued by the United Nations in 1988/89, based on a working paper prepared for the Expert Group Meeting on Measurement of Women's Income and Their Participation and Production in the informal Sector. See "Collection and compilation of time-use statistics to measure participation of women in the informal sector", part two of Methods of Measuring Women's Participation and Production in the Informal Sector - Technical Report (United Nations publication, forthcoming).

78/ International Standard Industrial Classification of All Economic Activities, Series M, No. 4, Rev. 2 (United Nations publication, Sales No. E.68.XVII.8).

79/ System of National Accounts ..., table 5.1.

80/ Classification of the Functions of Government, Series M, No. 70 (United Nations publication, Sales No. E.80.XVII.17).

81/ Concepts and Methods for Integrating Social and Economic Statistics ...

82/ United Nations publication, Sales No. E/F.84.XIII.1.

83/ See, for example, Compendium of Human Settlements Statistics, 1983 (United Nations publication, Sales No. E/F.84.XVII.5), preface, and report of the Expert-Group Meeting on Human Settlements Statistics, held in Nairobi 12-16 October 1987 (EHA/STAT/AC.31/1).

Notes (continued)

84/ See the report of the Meeting on Environmental Indicators convened by the Conference of European Statisticians, held in Geneva, 19-22 March 1984 (CES/AC.50/6), "Draft set of ECE environmental indicators" (CES/548/Add.6/Rev.1), Concepts and Methods of Environment Statistics ... and A Framework for the Development of Environment Statistics ....

85/ International Classification of Impairments, Disabilities and Handicaps; A Manual of Classification Relating to the Consequences of Disease (World Health Organization, Geneva, 1980). See also the citations in notes 25-29 above.

86/ See illustrative format 13 and Concepts and Methods for Internation...

87/ Series M, No. 61 (United Nations publication, Sales No. E.77.XVII.11).

**Annex I**

**ILLUSTRATIVE FORMATS FOR BASIC DATA TABLES FOR INDICATORS, WITH NOTES ON  
STATISTICAL CONCEPTS AND CLASSIFICATIONS AND APPLICATIONS IN DEVELOPING  
AND LEAST DEVELOPED COUNTRIES**

<u>Illustration</u>	<u>List of illustrative formats</u>	<u>Page</u>
1	Population by age group and sex, urban and rural .....	87
2	Population according to geographical areas and size of locality .....	89
3	Population of geographical areas by urban and rural and major cities, and by age group and sex .....	91
4	Land use .....	93
5	Population by type of living quarters and housing stock and its characteristics, and annual residential construction and its characteristics, urban and rural .....	96
6	Household size, composition and headship, urban and rural, and non-household population .....	102
7	Marital status and divorcees by age group and sex, urban and rural .....	105
8	Mortality by age group, sex and cause of death .....	109
9	Educational attainment and illiteracy, urban and rural, and post-secondary enrolment and attainment .....	112
10	Labour force participation by age group and sex, urban and rural .....	115
11	Labour force by branch of economic activity, status in employment, occupation and sex .....	117
12	Households by socio-economic group, urban and rural .....	122
13	Gross domestic product, current and constant prices, and household income and distribution of household income, urban and rural .....	125
14	Time use (hours per week), by age group and sex, urban and rural .....	129

**Illustration 1. Population by age group and sex, urban and rural**

Age group and sex	Total	1970		1975		1980		1985		
		Urban	Rural	Total		Urban	Rural	Total		
<b>Total</b>										
<b>Under 1</b>										
1-4										
5-14										
15-19										
20-24										
25-44										
45-59										
60-69										
70+										
<b>Male (10 rows)</b>										
<b>Female (10 rows)</b>										

**Notes to illustration 1**

**(a) Concepts and classifications**

Concepts and classifications concerning age group and sex and urban and rural areas are discussed in subsections III.C 1 and 3 of the text.

**(b) Applications in countries at different levels of development**

Series and classifications	Developed countries	Developing countries	Least developed countries
Total population	Annual estimates	Annual estimates	Annual estimates
Age group and sex	Population census and annual estimates	Population census and estimates every two or three years based on surveys	Population census and five-yearly estimates
Urban and rural	Population census and annual estimates	Population census and estimates every two or or three years based on surveys	Population census and five-yearly estimates

Data compiled on population by age group and sex and urban and rural should be compiled for indicators in all countries from population censuses and thus at least every ten years. These data are fundamental as benchmark data for the compilation and analysis of most social and economic data on the population. Population estimates by age and sex should also be prepared for intercensal periods, but these normally can not reliably be prepared in as much detail, especially by urban and rural.

In developing countries, between-census estimates can frequently draw on household surveys covering statistics of internal migration and international migration where the latter is a major factor affecting population size, composition and distribution. e/ In least developed countries, between-census estimates must usually be based on very partial evidence for age, sex, urban and rural areas; hence such estimates cannot be prepared as frequently and can only be used as rough approximations.

Illustration 2. Population according to geographical areas  
and size of locality

National (1970)

Size of locality	Number of localities	Population	Repeat for 1980
Each city or urban agglomeration 2 million population and shown to be shown separately			
Cities or urban agglomerations below 2 million to be grouped:			
1 up to 2 million			
500,000 up to 1 million			
100,000 up to 500,000			
10,000 up to 100,000			
1,000 up to 10,000			
Total			

Repeat for each geographical region

Notes to illustration 2

(a) Concepts and classifications

1. Locality and size class of localities

According to the United Nations population census recommendations, a locality is defined as a distinct population cluster (also designated as inhabited place, populated centre, settlement, etc.) in which the inhabitants live in neighbouring living quarters which has a name or a locally recognized status. b/ The classification of localities by size shown here is adapted from that used in the United Nations population census recommendations, Demographic Yearbook 1963 and Compendium of Human Settlements Statistics, 1963. c/ Relative to that classification, the one shown here (a) provides five classes rather than ten and (b) suggests breaking down the 500,000 and over class into less than one million, one million up to two million and for two million and over, showing each city or urban agglomeration separately. The specific classification adopted in any given country for this type of compilation must take into account the particular size and characteristics of population distribution in that country.

2. Cities and urban agglomerations

3. Geographical regions

These concepts and classifications are discussed in subsection III.C.3 of the text.

(h) Applications in countries at different levels of development

<u>Series and classifications</u>	<u>Developed countries</u>	<u>Developing countries</u>	<u>Least developed countries</u>
Cities or urban agglomerations	Population census and annual estimates	Population census and two- or three-yearly estimates based on surveys	Population census and five-yearly estimates
Localities under 2 million population aggregated into size classes	Population census and five yearly estimate	Population census and five-yearly estimate where data are available	Population census and occasional special studies
Each geographical area, as above	Population census and five-yearly estimate	Population census and five-yearly estimate where data are available	Population census and occasional special studies where desired

Between-census estimates on population in major cities or urban agglomerations and in larger geographical areas should be prepared at least every five years in all countries. Population distribution in smaller localities and geographical areas is much more difficult to estimate in developing and least developed countries and in general can be undertaken only in conjunction with special studies or where specific needs for such data have been identified. g/

**Illustration 3. Population of geographical regions by urban and rural and major cities, and by age group and sex**

Age group and sex	<u>National</u>		
	<u>1970</u>		
	<u>Repeat for 1980</u>		
	Each large city or urban agglomeration	Rural	
Total	Urban	Rural	

Total

0-14  
15-24  
25-59  
60+

Male (5 rows)

Female (5 rows)

Repeat for each geographical region

Notes to illustration 3

(a) Concepts and classifications

1. Age group and sex

2. Urban and rural areas; cities and urban agglomerations; geographical regions

These concepts and classifications as discussed in subsections III.C. 1 and 3 of the text.

3. Localities

See the notes to illustration 2.

(b) Applications in countries at different levels of development

Series and classifications	Developed countries	Developing countries	Least developed countries
Age group and sex by:	Population census and five-yearly estimate	Population census and five-yearly estimate where data are available from surveys	Population census and special studies where desired
Urban and rural areas			
Cities or urban agglomerations			
Geographical areas			

Statistics on population by age group and sex in urban and rural areas, cities or urban agglomerations and larger and smaller geographical areas should be prepared from every population census. Between-census estimates should be prepared in developing countries where available data from household surveys permit. In most least developed countries, it will only be possible to prepare such estimates on a very limited basis and in conjunction with special studies.

Illustration 4. Land use

	National	Repeat for each major geographical region (one column each)
Total surface area		
1. Agricultural land		
2. Forest and other wooded land		
3. Built-up and related land, of which:		
Areas of major cities and urban agglomerations (each separately)		
Recreational land		
4. Open lands		
5. Water		

Notes to illustration 4

(a) Concepts and classifications

1. Surface area and land use

Illustration 4 uses a short classification of surface area and land use based on the Standard International Classification of Land Use developed by ECE in co-operation with FAO and OECD. e/ The internationally-recommended definitions of the items in table 3 are as follows:

(a) "Surface area" (this concept is not used in the ECE classification but is found in the United Nations Demographic Yearbook as the total of the items b-f given below), comprises all land area, inland and internal waters (rivers, lakes and ponds including impounded waters, coastal lagoons and estuaries and other tidal waters lying along the coast) and excludes only polar regions and uninhabited islands;

(b) Agricultural land refers to the major classes of land use on agricultural holdings, namely arable land (land generally under rotation), land under permanent crops, land under permanent meadows and pastures, rough grazing and land under farm buildings, yards and their annexes. It also includes forest and other wooded land used primarily for agricultural purposes, such as grazing;

(c) Forest and other wooded land includes all land with a "forest cover" over at least 5 per cent of the area, including plantations used for forestry purposes and wet forest but excluding city parks and gardens;

(d) Built-up and related land (excluding farm buildings) covers all land which is occupied by houses, roads, mines and quarries and any other facilities, including their auxiliary spaces, deliberately installed for the pursuit of human activities. Included also are certain types of open land (non built-up land) which are closely related to these activities, such as waste tips, derelict land in built up areas, junk yards, city parks and gardens, and so on;

(e) Open lands comprises open wetlands (partial), temporarily or permanently water-logged, usually shallow), dry open land with low vegetation cover, and open land with little or no vegetation cover, including glacier, perpetual snow and sand lands;

(f) Water comprises all surface waters enclosed by inland borders and, if applicable, by the low water mark on the seaward side.

Within the category of built-up and related land, (d above), it is useful for indicators relating to human settlements to distinguish two sub-categories (which are not exhaustive of the category):

(a) Areas of major cities and urban agglomerations, as determined by administrative boundaries in the former and the population census in the latter (this category is not included in the international classification);

(b) Recreational land, that is land used for purposes of recreation, such as sports fields, gymnasiums, major playgrounds, major public parks and green areas, public beaches and swimming pools, camping sites and areas mainly occupied by major facilities for tourism, secondary residences or vacation houses.

## 2. Other concepts and classifications

Concerning the definition and classification of cities and urban agglomerations and geographical regions see subsection III.C.3 of the text.

(b) Applications in countries at different levels of development

Series and classifications	Developed countries	Developing countries	Least developed countries
Total surface area		When significant changes occur	--
Agricultural land	Decennial agricultural census and five-yearly estimate	Decennial agricultural census and special studies as feasible	
Forest and other wooded land	Five-yearly estimates and special studies	Special studies as feasible	
Built-up and related	-- Decennial estimates and special studies --		
Major cities and urban agglomerations	Population censuses and five-yearly estimate	Population censuses and special studies as feasible	
Recreational lands	Decennial estimates and special studies	Lower priority	
Open lands and water	--	When significant changes occur	--
Geographical areas	Decennial	Decennial	Decennial

Land-use statistics for social indicators should be compiled at least decennially in all countries in connection with the population census. In most developing countries key intercensal estimates should be compiled every five years but probably will not be available more frequently than that. Special studies may be available from time to time to meet special priorities concerning, for example, agriculture, forestry, desertification or density of population in major urban agglomerations. Very few land-use statistics are likely to be available for social indicators in least developed countries apart from those prepared for decennial population and agricultural censuses and special studies.

Illustration 5. Population by type of living quarters and housing stock and its characteristics, and annual residential construction and its characteristics, urban and rural

A. Living quarters and Housing stock

	Total	Urban	1970 Each large city or urban agglomeration	Rural	Repeat for 1980
Population by type of living quarters					
Conventional and mobile housing units					
Marginal housing units					
Subtotal					
Collective living quarters					
Homeless					
Total					
Stock and characteristics of housing units and living quarters					
Conventional and mobile housing units					
Average number of rooms					
Marginal housing units					
Average number of rooms					
Total housing units or living quarters					
Without piped water inside					
Without piped water within 300 metres					
Without own toilet					
Without electric lighting					
Households which are owner occupants					

**Illustration 5. Population by type of living quarters and housing stock and its characteristics, and annual residential construction and its characteristics, urban and rural (continued)**

**B. Residential construction**

		Repeat for
	1971-1975	1976-1980
Both large		
Other city or urban		
Total urban agglomeration Rural		

Average annual number of conventional dwellings constructed

**Characteristics**

Average number of rooms  
With piped water inside  
With toilet inside  
With electric lighting

**Notes to illustration 5**

(a) Concepts and classifications.

**I. Urban and rural areas; cities and urban agglomerations**

These concepts and classifications are discussed in subsection III.C.3 of the text.

**2. Living quarters and housing units**

The basic classification of population by type of living quarters and homeless shown in illustration 5 is based on the United Nations housing census recommendations. f/ In the classification shown here, the use of population as the statistical unit provides the most accurate picture of the housing situation of the population. However, if this type of tabulation is not available, the percentage distribution where household or housing unit is the statistical unit provides a reasonably close approximation which is frequently used.

The United Nations housing census recommendations define living quarters as structurally separate and independent places of abode. They may (a) have been constructed, built, converted or arranged for human habitation, provided that they are not at the time of the census used wholly for other purposes and that, in the case of mobile housing units, improvised housing units and collective living quarters, they are occupied at the time of the census, or (b) although not intended for habitation, actually be in use as such at the time of the census.

The essential features of living quarters are separateness and independence. An enclosure may be considered as separate if surrounded by walls, fences and the

like and covered by a roof so that a person or group of persons can isolate themselves from other persons in the community for the purposes of sleeping, preparing and taking their meals or protecting themselves from the hazards of climate and environment. Such an enclosure may be considered as independent when it has direct access from the street or from a public or communal staircase, passage, gallery or grounds, that is, when the occupants can come in or go out of their living quarters without passing through anybody else's premises.

For the purposes of social indicators, living quarters may be grouped into three types, defined in the census recommendations as follows:

(a) Conventional and mobile housing units: A conventional dwelling is a room or suite of rooms and its accessories in a permanent building or structurally separated part thereof, which by the way it has been built, rebuilt or converted, is intended for habitation by one household and is not, at the time of the census, used wholly for other purposes. It should have a separate access to a street (direct or via a garden or grounds) or to a common space within the building (staircase, passage, gallery and so on). Examples of dwellings are houses, flats, suites of rooms and apartments. A permanent building is understood to be a structure that may be expected to maintain its stability for 10 years or more. In some cases, it may be of greater significance nationally to apply the criteria of construction material and method of construction directly in order to establish whether or not the building containing the housing unit is of permanent construction rather than translating these criteria into a time period. A mobile housing unit is any type of living accommodation that has been made to be transported (such as a tent) or is a moving unit (such as a ship, boat, barge, vessel, railroad car, caravan, trailer or yacht) occupied as living quarters at the time of the census;

(b) Marginal housing units comprise three subgroups, namely, Improvised housing units, housing units in permanent buildings not intended for human habitation and other premises not intended for human habitation. These units are characterized by the fact that they are either makeshift shelters constructed of waste materials and generally considered unfit for habitation (squatters' huts, for example) or places that are not intended for human habitation although in use for the purpose at the time of the census (barns, warehouses, natural shelters, etc.). Under almost all circumstances such places of abode represent unacceptable housing conditions of the population for the purpose of estimating housing problems;

(c) Collective living quarters include structurally separate and independent places of abode intended for habitation by large groups of individuals or several households and occupied at the time of the census. Such quarters usually have certain common facilities, such as cooking and toilet installations, baths, lounge rooms or dormitories, which are shared by the occupants. They include hotels, rooming houses and other lodging houses, institutions and camps.

The census recommendations consider persons or households not occupying living quarters, that is, without structurally separate and independent places of abode according to the above definition, as homeless. The census recommendations thus define homeless as those without a shelter that would fall within the scope of living quarters as defined. They carry their few possessions with them, sleeping in the street, in doorways or on piers or in any other space on a more or less random basis.

### 3. Characteristics of living quarters and housing units

Definitions of the characteristics shown in this illustration as found in the United Nations census recommendations are given below. g/

A room is defined as a space in a housing unit or other living quarters enclosed by walls reaching from the floor to the ceiling or roof covering, or at least to a height of 2 metres, of a size large enough to hold a bed for an adult, that is, at least 4 square metres. The total number of rooms therefore includes bedrooms, dining-rooms, living-rooms, studies, habitable attics, servants' rooms, kitchens, rooms used for professional or business purposes and other separate spaces used or intended for dwelling purposes, so long as they meet the criteria of walls and floor space. Passageways, verandahs, lobbies, bathrooms, and toilet rooms are not to be counted as rooms even if they meet the criteria, but rooms used only for professional or business purposes should be included.

Living quarters may or may not have a piped-water installation, that is, water provided to the living quarters by pipes from a community wide system or an individual installation, such as a pressure tank or pump. Piped water outside is intended where the tap is within 100 metres from the door. A toilet is defined as an installation for the disposal of human excreta. Whether it is situated inside or outside the living quarters is of varying significance according to the type being considered.

Tenure refers to the arrangements under which the household occupies its living quarters. In the case of households which are owner occupants, a member of the household is the owner of the living quarters.

## (b) Applications in countries at different levels of development

Series and classifications	Developed countries	Developing countries	Least developed countries
Type of living quarters			
Conventional	Housing census and annual or biennial estimates	Housing census and five-yearly estimates	Housing census and special studies
Marginal	Housing census and five-yearly estimates based on household surveys	Housing census and five-yearly estimates	Housing census and special studies
Collective	--	Housing census and occasional estimates	Housing census
Homeless	--	Special studies	
Number of rooms by type of living quarters		Housing census and five-yearly estimates based on household surveys	Housing census and special studies
Water and sanitation	Lower priority	Housing census and five-yearly estimates based on household surveys	Housing census and special studies
Electric lighting	Lower priority	Housing census and five-yearly estimates based on household surveys	Housing census and special studies
Owner-occupants	Lower priority	Housing census and five-yearly estimates based on household surveys	Housing census and special studies
Conventional dwellings constructed and their characteristics	Annual	Annual or biennial estimates	Biennial or less frequent estimates

<u>Series and classifications</u>	<u>Developed countries</u>	<u>Developing countries</u>	<u>Least developed countries</u>
Urban and rural	Housing census and five-yearly estimates	Housing census and special surveys or studies	Housing census and special studies
Cities and urban agglomerations	Housing census and special surveys	Housing census and special surveys or studies	Housing census and special studies

Decennial housing censuses are the main source of statistics for indicators on housing in all countries, supplemented by construction statistics, household surveys and special studies. The choice and definition of housing characteristics for indicators will vary substantially among countries and even within countries to take into account different cultural practices, climate, construction techniques and so on. Most developed countries compile reliable construction data annually, and these provide a good basis for annual estimates and indicators of housing conditions and trends in those countries, supplemented by household surveys. In urban areas of developing countries, construction data on an annual or biennial basis provide important indicators of additions to conventional housing but provide a very incomplete picture of overall changes to housing stock. In both urban and rural areas, informal construction and the like must also be taken into account, and in rural areas these types of construction are likely to be predominant. Household surveys covering housing topics are thus of relatively great importance in most developing countries. In least developed countries, however, housing indicators must mainly be compiled from the housing census supplemented by special studies. Few other statistics are likely to be available regularly on a reliable basis.

Illustration 6. Household size, composition and headship, urban and rural, and non-household population

a. Illustrative data and format

Type of household	Number of households	1970			Average household size (5 cols.)
		15+	Population under 15	Total population	
Total living in households	100	250	200	450	4.5
One-person	10	10	---	10	1
male	7	7	---	7	1
Female	3	3	---	3	1
Two- or more-person	90	240	200	440	4.9
Without children under 15	35	90	---	90	2.6
male head	25	70	---	70	2.8
Female head	10	20	---	20	2.0
With children under 15	55	150	200	350	6.4
male head	40	25	150	265	6.6
Female head	15	35	50	85	5.7
Subtotal male head	65	180	150	335	5.2
Subtotal female head	25	60	50	105	4.2
Total male head*	72	187	150	342	4.0
Total female head*	28	63	50	100	3.9
Population not living in households (Local) of which:	---	3	1	4	----
in health and social welfare institutions	----	1	1	2	----
in criminal justice detention	----	1	0	1	----
Total population	----	253	201	454	----
Urban (19 rows)					
Rural (19 rows)					

Illustration 6. Household size, composition and headship, urban and rural, and non household population (continued)

B. Illustrative indicators on household size and sex of head based on A

Size of household and sex of head	Percentage distribution of households	Percentage distribution of population in households	Percentage distribution of population under age 15
<b>One person</b>			
male	7	2	---
female	3	1	---
Total	10	2	---
<b>Two-person or more</b>			
male head	65	73	75
female head	25	24	25
Total	90	98	100
Total male head*	72	76	75
Total female head*	28	24	25

Note: Percentages may not add to totals due to rounding.

\* Including one-person households.

Notes to illustration 6

(a) Concepts and classifications

1. Urban and rural areas

See subsection III.C.3 of the text.

2. Household and head of household

These concepts and classifications are discussed in subsection III.C.4 of the text.

3. Population not living in households

"Population not living in households" is defined in the United Nations population census recommendations as a residual category relative to persons living in households, that is, persons who do not make their own or common arrangements for food or other essentials of living. This category comprises mainly persons living in institutions, such as military barracks, correctional and penal institutions, dormitories of schools and universities and religious institutions. It does not include persons living in hotels or boarding houses or personnel of

institutions not living in dormitories or similar accommodations, where their living arrangements meet the criteria of households. b/

The two subgroups of population not living in households shown here, in the illustrative format, which are not exhaustive of this category, relate to two groups of population of particular interest for social policy studies, persons living in health and social welfare institutions and persons held by the criminal justice system.

Health and welfare institutions are defined in the United Nations International Standard Classification of All Economic Activities to include hospitals, sanatoria, and similar institutions and clinics, and institutions primarily engaged in providing social welfare services, such as orphanages, homes for the aged and homes for the blind. i/

The three characteristics shown here for illustrative purposes are sex of head of household, household size and number of children under age 15. The illustration shows how these characteristics, even when they are simplified as much as possible, nevertheless require a relatively complex tabulation but one which is of great usefulness for social policy analyses. Illustrative data are presented in this illustration to show the complex interpolation of the data, in which the figures in the body of the table are extremely sensitive to the marginal totals. Part B of this illustration shows some of the indicators which can be calculated from the data in part A. Other household characteristics could also be considered for tabulation, such as age of head, number of families present, number of non related persons present and number of generations.

(b) Applications in countries at different levels of development

Series and classifications	Developed countries	Developing countries	Least developed countries
Household size	Population census and annual estimates	Population census and five-yearly household survey	Population census and special studies
Sex of household head	Population census and biennial household surveys	Population census and five-yearly household survey	Population census and special studies
Children under age 15 in households	Population census and biennial surveys	Population census and five-yearly household survey	Population census and special studies
Population living in institutions	Population census and annual institutional surveys	Population census and biennial institutional surveys	Population census and special studies
Urban and rural	Population census and biennial household surveys	Population census and five-yearly household survey	Population census and special studies as feasible

Statistics for indicators on household size, headship and composition should be compiled for all countries from the population census supplemented by household surveys where feasible. Estimates for most series can be compiled annually or biennially in developed countries, but appropriate data from household surveys will be available much less frequently in developing countries. In least developed countries, between-census series are likely to be available only from ad hoc special studies covering selected areas.

Illustration 7. Marital status and divorces by age group and sex,  
urban and rural

	Total	Currently married	Divorced or separated	Not currently married	Never married	1970 (6 columns)	1980 (6 columns)
							Divorces
Total male							
15-19							
20-24							
25-44							
45-59							
60+							
Total female							
15-19							
20-24							
25-44							
45-59							
60+							
Urban							
Male (6 rows)							
Female (6 rows)							
Rural							
Male (6 rows)							
Female (6 rows)							
Major cities or urban agglomerations (each 12 rows)							

Notes to illustration 7

(a) Concepts and classifications

1. Age group and sex
2. Urban and rural, major cities and urban agglomerations

These concepts and classifications are discussed in subsection III.C.1 and 3 of the text.

3. Marital status

The United Nations population census recommendations define marital status as the personal status of each individual in relation to the marriage laws or customs of the country. The categories of marital status identified are single (i.e., never married), married, widowed and not remarried, divorced and not remarried and married but separated. Separated comprises both legally and *de facto* separated. In many countries customary unions which are legal and binding under customary law and extra-legal unions, the latter often known as *de facto* (consensual) unions, should be taken into account as currently married. j/

4. Divorce (for calculation of annual rates)

According to the United Nations definition, divorce is a final legal dissolution of a marriage, that is, that separation of husband and wife which confers on the parties the right to remarry under civil, religious and/or other provisions, according to the laws of each country. k/

(b) Applications in countries at different levels of development

<u>Series and classifications</u>	<u>Developed countries</u>	<u>Developing countries</u>	<u>Least developed countries</u>
Marital status by age group and sex	Population census and household surveys every three to five years	Population census and five-yearly household survey	Population census and special studies
Divorces	Annual	Every three to five years where feasible	Lower priority
Urban and rural or major geographical regions	Population census and estimates every two to five years	Population census and estimates every five years where feasible	Population census and special studies

Statistics for indicators on marital status should be compiled for all countries from the population census supplemented by household surveys where feasible. Statistics on divorce are available from civil registration annually in developed countries but are usually available less frequently and with much less comprehensive coverage in developing countries, particularly in rural areas. Between-census data on marital status in least developed countries will only be available for a few areas from ad hoc special studies. Divorce statistics for most least developed countries will be very incomplete and should be given lower priority for indicators.

Civil registration data are not normally classified by urban and rural. Thus divorce series will have to be classified by geographical areas and major cities.

Illustration 0. Mortality by age group, sex and cause of death

Cause of death	Total	Age groups, 1980						Female (8 columns) (B columns)	Male (8 columns) (B columns)	24 columns each column iconal year
		0-1	1-4	5-14	15-24	25-44	45-59			
<u>DISPOSED</u>										
Infectious and parasitic (I)										
endemic, nutriti- tional and metabolic										
Infect. IJT, 250, 261-263) f. Anamolae										
Infect. IV, 280-285) f. respiratory										
Infect. VIT, 440-493) f. perinatal										
conditions (IV)										
Malignant (II)										
Chromatery (VII)										
Maternal (X)										
All other diseases										
SUICIDE										
<u>EXTERNAL CAUSES</u>										
Motor vehicle accidents (F810-2819)										
Bullying (2850-999)										
Nonlethal (2860)										
Carcinogenic (E900-909)										
War (E910-999)										
All other external causes										
<u>Total</u>										
<u>Subtotal</u>										
Total, all causes										

Repeated for specific causes in major geographical  
areas and cities to extent feasible

Notes to illustration 8

(a) Concepts and classifications

1. Age group and sex

2. Cities and geographical regions

These concepts and classifications are discussed in subsections III.C.1 and 3 of the text.

3. Causes of death

The classification of causes of death shown here is based on the International Classification of Diseases and Causes of Death (ICD) of the World Health Organization (ninth revision).<sup>17</sup> It is intended to provide a basic summary of mortality data for social indicators purposes, not for health studies. The major groups of ICD are indicated with Roman numerals, three digit categories by Arabic digits, and external causes are preceded by an E. For a detailed description of the contents of each group, and category, the ICD Manual should be consulted.

(b) Applications in countries at different levels of development

Series and classifications*	Developed countries	Developing countries	Least developed countries
Cause of death:			
Diseases	Annual or biennial	Biennial	Special studies every two to three years
External causes	Annual	Annual or biennial	Every two or three years
Geographical areas and cities	Every two or three years	Every three to five years	Special studies as feasible

\* All series are from civil registration to the extent feasible except in least developed countries, where special studies are the more common source.

Cause of death data from civil registration are readily available annually in most developed countries but need not always be compiled for indicators on an annual basis where year to year changes are small. In developing countries the availability and reliability of these data is much more variable. Where data are seriously incomplete, it may be feasible and preferable to use them to develop indicators of major causes of death rather than rates. In general, deaths from external causes should be more accurately reported than deaths from diseases, and these data are very useful in their own right for indicators. In most least developed countries, reliable data can only be compiled in connection with special studies working with trained medical specialists. However, such studies should at least be useful in determining the main causes of death in those countries even in the absence of numerical estimates.

**Illustration 9. Educational attainment and illiteracy, urban and rural,  
and post-secondary enrolment and attainment**

**A. First and second level attainment, and illiteracy**

	1980					
	Total illiterate	No schooling	Completed primary	Entered secondary	Completed secondary	Each additional year (6 columns)
Total 15+						
15-24						
25-44						
45-59						
60+						
Male (5 rows)						
Female (5 rows)						
Urban (15 rows)						
Rural (15 rows)						

Repeat for each geographical region

**B. Post-secondary level**

1980	Enrolled at the third level			Completed third level		Each additional year (5 columns)
	1st stage (non-univ.)	1st stage (univ.)	2nd stage	1st stage	2nd stage	
Total 15+						
15-24						
25+						
Male (3 rows)						
Female (3 rows)						

Notes to illustration 9

(a) Concepts and classifications

1. Age group and sex
2. Urban and rural areas...geographical regions

These concepts and classifications are discussed in subsections III.C.1 and 3 of the text.

3. Illiteracy

The definition of illiteracy established by the United Nations Educational Scientific and Cultural Organization (UNESCO) states that a person is illiterate who cannot, with understanding, both read and write a short simple statement on his or her everyday life. Hence, a person capable of reading and writing only figures and his or her own name should be considered illiterate, as should a person who can read but not write and one who can read and write only a ritual phrase which has been memorized. The language or languages in which a person can read and write is not a factor in determining literacy. n/

4. Educational attainment and enrolment

Educational attainment and enrolment are classified by level of education. This classification is discussed in subsection III.C.5 of the text.

(b) Applications in countries at different levels of development

Series and classifications	Developed countries	Developing countries	Least developed countries
Illiteracy	Special studies	Population census and household surveys every two to three years	Population census and intercensal survey
Primary and secondary attainment	Population census and annual or biennial household survey	Population census and household surveys every two to three years	Population census and intercensal survey
Urban and rural	Population census and annual or biennial household survey	Population census and household surveys every two to three years	Population census and intercensal survey
Third level enrolment	Annual	Annual or biennial	Biennial
Third level attendance and attainment	Population census and household survey every two to three years	Population census and intercensal survey	Population census
Age group and sex	In all series where feasible	Population census and intercensal survey	Population census
Geographical regions	In all series where feasible	Population census and intercensal survey	Population census

Population censuses and to a lesser extent household surveys are the usual sources of statistics on illiteracy and educational attainment in most developing countries. However, many developed and developing countries where literacy has reached relatively high levels, say greater than 90 per cent, no longer include this topic in their censuses or surveys. In these cases, special studies are needed to determine the degree of literacy and numeracy skills over and above basic literacy as defined by UNESCO. In general, in most developing countries, series for indicators on attainment at first and second levels and literacy should be compiled from surveys every two to three years, in addition to the population census and in least developed countries at least once in the intercensal period, by age group and sex, urban and rural and geographical areas to the extent feasible. Series for indicators on attendance and attainment at the third level from census and surveys are needed much less frequently.

Statistics for indicators on enrolment at the third level should be compiled from institutions at least biennially.

Illustration 10. Labour force participation by age group and sex,  
urban and rural

		1980				Each additional year (6 columns)	
<u>Total</u>		<u>Urban</u>		<u>Rural</u>			
Econom- ically native	Not econ. active	Econom- ically active	Not econ. active	Econom- ically active	Not econ. active		
<b>Both sexes, total</b>							
15-19							
20-24							
25-44							
45-59							
60+							
<b>Male, total</b>							
15-19							
20-24							
25-44							
45-59							
60+							
<b>Female, total</b>							
15-19							
20-24							
25-44							
45-59							
60+							
<u>Repeat for each geographical region</u>							
<b>18 lines for each region</b>							

Notes to illustration 10

(a) Concepts and classifications

1. Age group and sex
2. Urban and rural areas, geographical regions
3. Economically active and not economically active

These concepts and classifications are discussed in subsections III.C.1 and 3 of the text.

For a discussion of the definitions of economically active and not economically active populations, see the text chapter IV, section F.

(b) Applications in countries at different levels of development

<u>Series and classifications</u>	<u>Developed countries</u>	<u>Developing countries</u>	<u>Least developed countries</u>
Economically active and not economically active	Population census and annual household surveys	Population census and annual or biennial household surveys	Population census and household survey every two to three years
Age group and sex	Population census and annual or biennial household surveys	Population census and annual or biennial household surveys	Population census and household survey every two to three years
Urban and rural and/or geographical areas	Population census and household surveys every two to three years	Population census and household surveys every two to three years	Population census and intercensal survey

In nearly all countries population censuses and household surveys are the usual sources of statistics on the labour force. They should be compiled for social indicators annually wherever possible and with disaggregation by age group, sex, urban and rural and geographical areas at least every two to three years. However, in least developed countries, comprehensive household survey data in sufficient detail are not likely to be available except from one or two intercensal surveys.

Illustration II. Labour Force by branch of economic activity, status in employment, occupation and sex

A. kind of economic activity and status in employment

Employers	1970						1980	
	Employees			Unpaid Family Account	Male (6 cols.)	Female (6 cols.)	Male (10 columns)	
	Gen'l. gov't.	Public ent.	Private ent.					
Agricultural and forestry production, and services (11)								
Forestry and fishing (12, 13)								
Mining and quarrying (2)								
Other industry (3, 4, 5, 7)								
Distributive trades (6)								
Economic services (8)								
Public administration and defence (91)								
Recreational and cultural services (94)								
Personal services (95)								
Subtotal								
Education services (911)								
Medical, dental, health services (9331)								
Other community and social services (92, 934, 935, 939)								
Extra-territorial bodies (96)								
Subtotal								
Total								
Urban (16 rows)								
Rural (16 rows)								

Illustration 11. Labour force by branch of economic activity,  
status in employment, occupation and sex  
(continued)

H. Occupation (1960 classification) and status of population  
not economically active

	1970			1980		
	Total	Male	Female	Total	Male	Female

Labour force

Professional/technical (0/1)  
Administrative, managerial (2)  
Clerical/sales/service (3, 4, 5)  
Agriculture, forestry, animal  
    husbandry and fishery workers  
    and hunters (6)  
Production workers (7/8/9)  
Other (X) and armed forces

Total

Subgroups of interest in  
specialized fields

Health services:  
    Medical/dental and related  
(0-5/7, exc. 0-65/66)

Criminal justice:  
    Jurists (1-2)  
    Policemen, detectives,  
        prison guards (5-82.20/30,  
        5-89.30)  
    Private guards and watchmen  
(5-82.40, 5-89.40)

Professional/technical workers  
in agriculture:  
    Agronomists and related  
    scientists, veterinarians  
    and assistants (0-53,  
    0-65/66)

Total

Population not economically active

Home-makers  
Students  
Income recipients  
Other

Total

Total population aged 15+

Illustration 11. Labour force by branch of economic activity, status in employment, occupation and sex (continued)

C. Occupation (1988 classification) and status of population not economically active

	1990 or later		
	Total	Male	Female
<b>Labour force</b>			
Professionals (2)			
Technicians and administrative associate professionals (3)			
Legislators, administrators and managers (1)			
Clerks, services and shop sales workers (4, 5, 9.1)			
Skilled agricultural and fishery workers and labourers (6.2, 9.2)			
Industrial workers and labourers (7, 8, 9.3)			
Armed forces (0)			
Total			
Subgroups of interest in specialized fields			
Health services:			
Medical professionals (2.2.2)			
Medical associate professionals (1.2.2/3/4)			
Criminal justice:			
Judges (2.4.2.2)			
Commissioned police officers and investigators (3.4.3.5)			
Police and prison guards (5.1.6.2/3)			
Private security guards (9.1.5.3)			
Professional and technical workers in agriculture:			
Veterinarians (2.2.2.3)			
Agronomists and related professionals (2.2.1.3)			
Agronomy, forestry and farming technicians and advisers (3.2.1.2/3)			
<u>Population not economically active</u>			
Home-makers			
Students			
Income recipients			
Other			
Total			
Total population aged 35+			

Notes to illustrations II

(a) Concepts and classifications

1. Urban and rural areas
2. Kind of economic activity (industry)
3. Status in employment
4. Employees by institutional sector
5. Occupation (1960 revision)
6. Occupation (1980 revision)

These concepts and classifications are discussed in subsections III.C.3, 6, 7 and 11 of the text.

7. Status of population not economically active

The following functional categories of the not economically active population are defined in the United Nations population census recommendations. 2/  
Home-makers are persons of either sex who are engaged in household duties in their own home - for example, spouses and other relatives responsible for the care of home and children, and who are not domestic employees working for pay; students are persons of either sex who attend any regular educational institution, public or private, for systematic instruction at any level of education; income recipients are persons of either sex who receive income from property or other investment royalties or pensions from former activities; others include persons of either sex who are receiving public aid or private support and all other persons not falling into any of the above categories, such as children not attending school.

In no case are persons who are economically active within the time-reference period adopted for the statistics to be counted in any of the functional categories of the not economically active population, even though they may be engaged in activities covered in one or more of these categories.

(b) Applications in countries at different levels of development

Series and classifications	Developed countries	Developing countries	Least developed countries
Branch of economic activity	Population census and annual or biennial from household surveys	Population census and every three to five years from household surveys	Population census and intercensal survey
Status in employment and institutional sector	Biennial from household surveys	Every three to five years from household surveys	Population census and intercensal survey, as feasible
Age group and sex	Population census and annual or biennial from household surveys	Population census and every three to five years from household surveys	Population census and intercensal survey
Urban and rural	Population census and every three years from household surveys	Population census and every three to five years from household surveys	Population census and intercensal survey
Population not economically active	Population census and biennial from household surveys	Population census and every two to three years from household surveys	Population census and intercensal survey

Population censuses and household surveys are the usual sources of statistics on the economically active and not economically active populations in nearly all countries. They should be compiled for social indicators every two to five years with disaggregation by branch of economic activity, status in employment and institutional sector where feasible, urban and rural, occupation, not economically active status where applicable and age group and sex.

In least developed countries, these data should be available on a five-yearly basis.

Illustration 12. Households by socio-economic group, urban and rural

A. Using 1968 classification of occupations

Households*	1970			1980		
	Total	Urban	Rural	Total	Urban	Rural
<b>Farmers (6-1):</b>						
1. Employers						
2. Own-account						
3. Employees in agriculture and animal husbandry (6-0 and 6-2)						
4. Forestry, fishing, hunting and related occupations (6-3, 6-4):**						
4a. Employers						
4b. Own-account						
4c. Employees						
5. Professional, technical managerial (0/1 and 2 all statuses) and non agricultural employers in clerical, sales, services and production (3, 4, 5, 7/8/9)						
6. Own account workers in clerical, sales, services and production (3, 4, 5, 7/8/9)						
7. Employees in clerical, sales, services (3, 4, 5)						
8. Employees in production (7/8/9)						
Total						

\* Classified according to the socio-economic group of head or other reference person.

\*\* If of minor importance, this group and subgroups may be included in groups 1, 2 and 3.

Illustration 12. Households by socio-economic group, urban and rural  
(continued)

R. Using 1980 classification of occupations

Households*	1990 or later		
	Total	Urban	Rural
<i>Agricultural and fishery workers and managing supervisors (6 and 1,3,1,1);</i>			
1. Employers			
2. Own-account			
3. Employees			
4. Professionals (2) and all employers excluding agriculture			
5. Managers (1), technicians and associate professionals (3) (employees)			
6. Craft operator, clerk and service employees (4, 5, 7, 8)			
7. Elementary occupation employees (9)			
8. Own-account workers (all groups except professionals and agriculture)			
<i>Total</i>			

\* Classified according to the socio-economic group of head or other reference person.

Notes in illustration 12

(a) Concepts and classification

1. Urban and rural

2. Socio-economic groups

These concepts and classifications are discussed in subsections III.C.3 and 4 of the text.

(b) Applications in countries at different levels of development

Series and classifications	Developed countries	Developing countries	Least developed countries
Socio-economic groups	Population census and three yearly based on household surveys	Population census and intercensal household survey	Population census and special studies
Urban and rural	Population census and three-yearly based on household surveys	Population census and intercensal household survey	Population census and special studies

Population censuses and household surveys are the usual sources of statistics on present or previous labour force status of household heads or other reference person by occupation and status in employment. Inasmuch as compilation of data according to socio-economic groups requires special analysis of the relevant classifications and retabulation in each country, series for social indicators would be prepared relatively infrequently, ranging from approximately three-yearly in developing countries to population census periods only in least developed countries.

Illustration 11. Gross domestic product, current and constant prices, and household income and distribution of household income, urban and rural

6. Gross domestic product and its composition, and household income

	Current prices				Constant prices			
	1970	1975	1980	1985	1970	1975	1980	1985
1. Gross domestic product								
1.1 Government final consumption expenditure								
Education								
Health								
Public order and safety								
Social security and welfare								
Housing and community amenities								
Recreational, cultural and religious								
Defence								
1.2 Private final consumption expenditure								
Food and non-alcoholic beverages								
Alcoholic beverages and tobacco								
Gross rent, fuel and power								
Household furnishings and operation								
Medical and health expenses								
Personal transport								
Purchased transport								
Communication, recreation, and culture								
Education								
Restaurants and cafes								
Hotels and lodging								
1.3 Gross fixed capital formation								
Residential construction								
2. Total household income of which:								
Current transfers and other benefits received								
Direct taxes paid								
Social security and pension fund contributions								
2.1 Total available household income								

**Illustration 13. Gross domestic product, current and constant prices, and household income and distribution of household income, urban and rural (continued)**

**B. Distribution of household income or consumption**

	Percentage of households (showing percentage distribution of total income or consumption)						Each additional year (6 columns)
	5	20	25	25	20	5	

Percentage distribution of total household income total available household income, or final consumption expenditure by quartiles of households

Total

Urban

Rural

**Notes to Illustration 13**

**(a) Concepts and classifications**

**1. Gross domestic product (GDP) and its composition**

The definition and classification of gross domestic product are based on the United Nations System of National Accounts (SNA). p/ In addition to government and private final consumption expenditure and gross fixed capital formation shown in part A of the illustration, total gross domestic product (GDP) includes the items increase in stocks and exports less imports of goods and services, which are not shown as they are not in themselves significant for social indicators. For items in addition to residential buildings included in gross fixed capital formation, the full classification in the SNA should be consulted. p/

**2. Government final consumption expenditure**

The items of government final consumption expenditure shown here are similarly classified in the SNA, the kind of economic activity classification (ISIC) and the United Nations Classification of the Functions of Government. p/ These concepts and classifications are discussed further in subsection III.C.11 of the text. The items shown in illustration 13 are those important for the development of social indicators. For additional items included in the total, the full classifications in the sources cited should be consulted.

**3. Private final consumption expenditure**

This classification is from the United Nations SNA classification of household goods and services. p/

#### 4. Household income

Definitions and classifications of total household income and total available household income and their components are provided in Provisional Guidelines on Statistics of the Distribution of Income, Consumption and Accumulation of Households.<sup>5/</sup> Only the main components of particular interest for general social indicators are shown here. Total available household income is equal to total household income less direct taxes and social security and pension fund contributions.

##### (b) Applications in countries at different levels of development

<u>Series and classifications</u>	<u>Developed countries</u>	<u>Developing countries</u>	<u>Least developed countries</u>
GDP and its major components	Annual	Biennial and annual estimates	Every three to five years and annual or biennial estimates
Government final consumption expenditure	Annual	Biennial and annual estimates	Every three to five years and annual or biennial estimates
Private final consumption expenditure	Every two or three years and annual estimates	Every five years and biennial estimates	Special studies
Gross fixed capital formation in residential construction	Every two or three years and annual estimates	Every five years and biennial estimates	Special studies
Total household income and total available household income	Every two or three years and annual estimates	Every five years and biennial estimates	Special studies
Transfers, benefits, taxes and related	Every two or three years and annual estimates	Every five years and biennial estimates	Special studies
Distribution of income or consumption by urban and rural	Every two or three years and annual estimates	Every five years and biennial estimates	Special studies

Statistics on gross domestic product or net material product are prepared by most countries every year, but the extent of estimation and degree of detail vary considerably among countries. In developed countries most basic aggregate series can be compiled annually for social indicators, but detailed statistics on income and consumption and their distribution must be collected in household surveys and are usually available less frequently. In many developing countries, only estimates are often available annually with underlying detail less frequently. Likewise comprehensive statistics on household income and expenditure in developing countries will normally only be available every five years or so. In the least developed countries, only the main aggregates and government consumption statistics are usually available on a regular basis.

Illustration 14. Time use (hours per week), by age group and sex, urban and rural

	Total	Both sexes				Male		Female		Each additional year	
		10-14	15-19	20-24	25-44	45-59	60+	(7 columns)	(7 columns)	(7 columns)	(121 columns)
<b>Total economic activity</b>											
Agro[icultural]											
As:											
Employee											
Employer											
Own account											
Unpaid family											
Non-agricultural											
As:											
Employee											
Employer											
Own-account											
Unpaid family											
Non-economic household work and obligations											
Houskeeping											
Child care											
Adult care											
Personal needs											
Education											
Social, cultural, leisure, political											
Total											
Urban	117 lines!										
Rural	117 lines!										

Notes on illustration 14

(a) Concepts and classifications

1. Urban and rural

2. Age group and sex

3. Time use

These concepts and classifications are discussed in subsections III.C.1, 3 and 10 of the text.

(b) Applications in countries at different levels of development

<u>Series and classifications</u>	<u>Developed countries</u>	<u>Developing countries</u>	<u>Least developed countries</u>
Time use in agricultural economic activity	Every two or three years	Every three or four years	Every five years
Time use in non agricultural economic activity	Every two or three years	Every three or four years	Every five years
Time use in non economic work and obligations	Every two or three years	Every three or four years	Every five years
Other time use	Every five years	Lower priority	Lower priority
Age group and sex	Every two to five years, as feasible	Every three or four years, as feasible	Every five years
Urban and rural	Every two to five years, as feasible	Every three or four years, as feasible	Every five years

Comprehensive time-use statistics are collected by many developed countries in their household survey programmes on a regular basis, most commonly every five years or so. In connection with labour force studies they may be collected more frequently. For the purpose of compiling indicators on women's and men's economic and non economic contribution in the informal sector, statistics on these activities should be compiled if possible for social indicators from labour force surveys every two to three years in developed countries, three to four years in developing countries and every five years in least developed countries. Statistics on other activities, such as leisure, are needed less frequently for indicators in developed countries, and in developing and least developed countries they are of much lower priority.

Notes

a/ For further discussion of these topics, see Statistics of Internal Migration: A Technical Report, Series F, No. 23 (United Nations publication, Sales No. E.78.XVII.13), Recommendations on Statistics of International Migration, Series M, No. 58 (United Nations publication, Sales No. E.79.XVII.18) and Handbook of Household Surveys (revised edition), Series F, No. 31 (United Nations publication, Sales No. E.83.XVII.13), chap. IX.

b/ Principles and Recommendations for Population and Housing Censuses, Series M, No. 57 (United Nations publication, Sales No. E.80.XVII.8), paras. 2.51-2.53.

c/ Ibid., illustration P2; Demographic Yearbook 1983 (United Nations publication, Sales No. E/F.84.XIII.1), table 35; and Compendium of Human Settlements Statistics 1983 (United Nations publication, Sales No. E/F.84.XVII.5), table 8.

d/ For examples of such studies, see The Prospects of World Urbanization, Revised ed. of 1984-85, Population Studies, Series A, No. 101 (United Nations publication, Sales No. E.87.XIII.3), "Migration, Population Growth and Employment in Metropolitan Areas of Selected Developing Countries" (ST/ESA/SER.R/No. 67) and the series Population Growth and Policies in Mega-Cities, United Nations Department of International and Economic Social Affairs, Population Policy Papers. For an analysis of data requirements for indicators in the field of human settlements, see the report of the Expert-Group Meeting on Human Settlements Statistics, held in Nairobi 12-16 October 1987 (ESA/STAT/AC.31/1).

e/ "Draft ECE Standard International Classification of Land Use" (CBS/548/Add.1).

f/ Principles and Recommendations ... paras. 3.41-3.79 and 1.227.

g/ Ibid., paras. 3.87-3.97 and 3.116-3.118.

h/ Ibid., paras. 1.229-1.230.

i/ International Standard Industrial Classification of All Economic Activities, Series M, No. 4, Rev.2 (United Nations publication, Sales No. E.68.XVII.8), groups 9331 and 9340.

j/ Principles and Recommendations ... paras. 2.97-2.104.

k/ Principles and Recommendations for a Vital Statistics System, Series M, No. 19, Rev.1 (United Nations publication, Sales No. E.73.XVII.9), para. 46, item b.

l/ Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death (1975 Revision), vol. 1 (World Health Organization, Geneva, 1977).

m/ For notes on the quality and coverage of civil registration data in each country see Demographic Yearbook 1985 (United Nations publication, Sales No. E/F.86.XIII.1), table 25.

Notes (continued)

- a/ As quoted in Principles and Recommendations ..., paras. 2.154-2.167.
- b/ Principles and Recommendations..., paras. 2.196-2.197.
- c/ A System of National Accounts, Series F, No. 2, Rev.3 (United Nations publication, Sales No. E.69.XVII.3). See account I.I for the classification of expenditure on the gross domestic product.
- d/ A System of National Accounts..., table 6.3.
- e/ Series M, No. 70 (United Nations publication, Sales No. E.80.XVII.17).
- f/ A System of National Accounts..., table 6.1.
- g/ Series M, No. 61 (United Nations publication, Sales No. E.77.XVII.11), table II.1 and paras. 2.2-2.8.

Annex II

EXCERPTS FROM INTERNATIONAL RECOMMENDATIONS ON STATISTICAL  
CLASSIFICATIONS IN SOCIAL AND RELATED ECONOMIC FIELDS

	<u>Page</u>
I. INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS (ISCO) .....	134
A. 1968 revision .....	134
B. 1988 revision .....	138
II. CLASSIFICATION OF HOUSEHOLD GOODS AND SERVICES FROM THE UNITED NATIONS SYSTEM OF NATIONAL ACCOUNTS (1968) .....	144
III. CLASSIFICATION OF INSTITUTIONAL SECTORS FROM THE UNITED NATIONS SYSTEM OF NATIONAL ACCOUNTS (1968) .....	145
IV. CLASSIFICATION OF THE FUNCTIONS OF GOVERNMENT (1990) .....	147
V. INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES (ISIC, 1968) .....	150
VI. INTERNATIONAL CLASSIFICATION OF DISEASES, INJURIES AND CAUSES OF DEATH (ICD, 1975 REVISION) .....	152

I. INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS (ISCO)

A. 1968 revision\*

MAJOR AND MINOR GROUPS

Major Group 0/L - Professional, technical and related workers

- 0-1 Physical scientists and related technicians
- 0-2/3 Architects, engineers and related technicians
- 0-4 Aircraft and ships' officers
- 0-5 Life scientists and related technicians
- 0-6/7 Medical, dental, veterinary and related workers
- 0-8 Statisticians, mathematicians, systems analysts and related technicians
- 0-9 Economists
- 1-1 Accountants
- 1-2 Jurists
- 1-3 Teachers
- 1-4 Workers in religion
- 1-5 Authors, journalists and related writers
- 1-6 Sculptors, painters, photographers and related creative artists
- 1-8 Athletes, sportsmen and related workers
- 1-9 Professional, technical and related workers not elsewhere classified

Major Group 2. - Administrative and managerial workers

- 2-0 Legislative officials and government administrators
- 2-1 Managers

Major Group 3. - Clerical and related workers

- 3-0 Clerical supervisors
- 3-1 Government executive officials

\* From International Standard Classification of Occupations, Revised Education (Geneva, International Labour Organisation, 1969).

- 3-2 Stenographers, typists and card- and tape-punching machine operators
- 3-3 Bookkeepers, cashiers and related workers
- 3-4 Computing machine operators
- 3-5 Transport and communications supervisors
- 3-6 Transport conductors
- 3-7 Mail distribution clerks
- 3-8 Telephone and telegraph operators
- 3-9 Clerical related workers not elsewhere classified

Major Group 4 - Sales workers

- 4-0 Managers (wholesale and retail trade)
- 4-1 Working proprietors (wholesale and retail trade)
- 4-2 Sales supervisors and buyers
- 4-3 Technical salesmen, commercial travellers and manufacturers' agents
- 4-4 Insurance, real estate, securities and business services salesmen and auctioneers
- 4-5 Salesmen, shop assistants and related workers
- 4-9 Sales workers not elsewhere classified

Major Group 5 - Service workers

- 5-0 Managers (catering and lodging services)
- 5-1 Working proprietors (catering and lodging services)
- 5-2 Housekeeping and related service supervisors
- 5-3 Cooks, waiters, bartenders and related workers
- 5-4 Maids and related housekeeping service workers not elsewhere classified
- 5-5 Building caretakers, charworkers, cleaners and related workers
- 5-6 Laundryers, dry-cleaners and pressers
- 5-7 Hairdressers, barbers, beauticians and related workers
- 5-8 Protective service workers
- 5-9 Service workers not elsewhere classified

Major Group 6. - Agriculture, animal husbandry and forestry workers, fishermen, and hunters

- 6-0 Farm managers and supervisors
- 6-1 Farmers
- 6-2 Agriculture and animal husbandry workers
- 6-3 Forestry workers
- 6-4 Fishermen, hunters and related workers

Major Group 7/4/0. - Production and related workers, transport equipment operators and labourers

- 7-0 Production supervisors and general foremen
- 7-1 Miners, quarrymen, well drillers and related workers
- 7-2 Metal processors
- 7-3 Wood preparation workers and papermakers
- 7-4 Chemical processors and related workers
- 7-5 Spinners, weavers, knitters, dyers and related workers
- 7-6 Tanners, fellmongers and pelt dressers
- 7-7 Food and beverage processors
- 7-8 Tobacco preparers and tobacco-product makers
- 7-9 Tailors, diessmakers, sewers, upholsterers and related workers
- 8-0 Shoemakers and leather-goods makers
- 8-1 Cabinetmakers and related woodworkers
- 8-2 Stone cutters and carvers
- 8-3 Blacksmiths, toolmakers and machine-tool operators
- 8-4 Machinery fitters, machine assemblers and precision-instrument makers (except electrical)
- 8-5 Electrical fitters and related electrical and electronic workers
- 8-6 Broadcast station and sound equipment operators and cinema projectionists
- 8-7 Plumbers, welders, sheet metal and structural metal preparers and erectors

- 8-8 Jewellery and precious metal workers
- 9-9 Glass formers, potters and related workers
- 9-0 Rubber and plastics product makers
- 9-1 Paper and paperboard product makers
- 9-2 Printers and related workers
- 9-3 Painters
- 9-4 Production and related workers not elsewhere classified
- 9-5 Bricklayers, carpenters and other construction workers
- 9-6 Stationary engine and related equipment operators
- 9-7 Material-handling and related equipment operators, dockers and freight handlers
- 9-8 Transport equipment operators
- 9-9 Labourers not elsewhere classified

Major Group X - Workers not classified by occupation

- X-1 New workers seeking employment
- X-2 Workers reporting occupations unidentifiable or inadequately described
- X-3 Workers not reporting any occupation

Armed Forces - Members of the armed forces

B. 1988 revision\*

MAJOR, SUB-MAJOR AND MINOR GROUPS

Major Group 1. - Legislators, administrators and managers

1.1 Legislators and administrators

1.1.1 Legislators

1.1.2 Senior government administrators

1.1.3 Traditional chiefs and heads of villages

1.1.4 Administrators of special interest organizations

1.2 Corporate managers

1.2.1 Chief executives and general managers

1.2.2 Specialized managers

1.3 Managing supervisors

1.3.1 Managing supervisors

Major Group 2. - Professionals

2.1 Physical, mathematical and engineering sciences professionals

2.1.1 Physical scientists and related professionals

2.1.2 Mathematicians and related professionals

2.1.3 Computing professionals

2.1.4 Building and engineering professionals

2.2 Life and medical science professionals

2.2.1 Life science professionals

2.2.2 Medical professionals

2.2.3 Nursing professionals

\* As contained in the report of the Fourteenth International Conference of Labour Statisticians, held in Geneva, 28 October-6 November 1997, annex to the resolution entitled "Revision of the International Standard Classification of Occupations" (D.13, Part II).

2.3 Teaching professionals

- 2.3.1 College, university or higher education teachers
- 2.3.2 Secondary education teachers
- 2.3.3 Primary and pre-primary education teaching professionals
- 2.3.4 Special education teachers
- 2.3.5 Education methods specialists and school inspectors

2.4 Other professionals

- 2.4.1 Business professionals
- 2.4.2 Legal professionals
- 2.4.3 Social and related science professionals
- 2.4.4 Archivists, librarians and other informational professionals
- 2.4.5 Artistic professionals
- 2.4.6 Religion professionals

Major Group 3. - Technicians and administrative associate professionals

3.1 Physical science and engineering associate professionals

- 3.1.1 Physical science and engineering technicians
- 3.1.2 Computing assistants and equipment controllers
- 3.1.3 Optical and electronic equipment controllers
- 3.1.4 Ship and aircraft controllers and technicians
- 3.1.5 Building, safety and health inspectors

3.2 Life science and medical associate professionals

- 3.2.1 Life sciences technicians and related workers
- 3.2.2 Nursing associate professionals
- 3.2.3 Other modern life science and medical associate professionals
- 3.2.4 Traditional medicine practitioners and faith healers

3.3 Teachers

3.3.1 Primary education teachers

3.3.2 Pre-primary education teachers

3.3.3 Special education teachers

3.4 Other associate professionals

3.4.1 Finance and sales associate professionals

3.4.2 Business services agents and trade brokers

3.4.3 Government associate professionals

3.4.4 Administrative associate professionals

3.4.5 Social advisers and helpers

3.4.6 Non-ordained religion associate professionals

3.4.7 Writers, artists, entertainment and sports associate professionals

Major Group 4. - Clerks

4.1 Office clerks

4.1.1 General secretaries and keyboard operating clerks

4.1.2 Numerical clerks

4.1.3 Material recording and transport clerks

4.1.4 Library, mail and related clerks

4.2 Customer service clerks

4.2.1 Cashiers, tellers and related clerks

4.2.2 Client information clerks

Major Group 5. - Service workers and shop sales workers

5.1 Personal and protective service workers

5.1.1 Travel attendants and guides

5.1.2 Housekeeping and restaurant services workers

5.1.3 Care workers

5.1.4 Other personal services workers

5.1.5 Astrologers, fortunetellers and related workers

5.1.6 Protective services workers

5.2 Sales persons, demonstrators and models

5.2.1 Shop sales persons and demonstrators

5.2.2 Stall and market sales persons

5.2.3 Fashion and other models

Major Group 6. Skilled agricultural and fishery workers

6.1 Market oriented skilled agricultural and fishery workers

6.1.1 Market farmers and crop growers

6.1.2 Market-oriented animal producers

6.1.3 Market-oriented crop and animal producers

6.1.4 Forestry and related workers

6.1.5 Fishery workers, hunters and trappers

6.2 Subsistence agricultural and fishery workers

6.2.1 Subsistence agricultural and fishery workers

Major Group 7. Craft and related workers

7.1 Extraction and building trades workers

7.1.1 Miners and blasters, stone cutters and carvers

7.1.2 Building cleaners, painters and related workers

7.1.3 Building finishers

7.1.4 Building frame and related trade workers

7.2 Metal and machinery trades workers

7.2.1 Metal moulders, welders, sheet-metal workers, structural metal preparers, and related workers

7.2.2 Blacksmiths, toolmakers and related workers

7.2.3 Machinery mechanics and fitters

7.2.4 Electrical and electronic instrument fitters and installers

7.3 Precision, handicraft, printing and related trades workers

7.3.1 Precision workers in metal and related materials

7.3.2 Potters, glass formers and related workers

7.3.3 Handicraft workers in wood, textile, leather and related materials

7.3.4 Printing and related trades workers

7.4 Other craft and related workers

7.4.1 Food-processing trades workers

7.4.2 Cabinet makers, wood treaters and related trades workers

7.4.3 Textile and garment trades workers

7.4.4 Felt, leather and shoemaking trades workers

Major Group 8.—Plant and machine operators and assemblers

8.1 Industrial plant operators

8.1.1 Mining and mineral-processing plant operators

8.1.2 Metal-processing plant operators

8.1.3 Glass and ceramics kiln and related plant operators

8.1.4 Wood-processing plant operators

8.1.5 Chemical processing plant operators

8.1.6 Power-generating and related plant operators

8.1.7 Automated assembly line and industrial robot operators

8.2 Stationary machine operators and assemblers

8.2.1 Metal and mineral products processing machine operators

8.2.2 Chemical products machine operators

8.2.3 Rubber and plastic products machine operators

8.2.4 Wood products machine operators

8.2.5 Printing, binding and paper products machine operators

8.2.6 Textile products machine operators

8.2.7 Food-processing machine operators

8.2.8 Assemblers

8.3 Drivers and mobile machinery operators

8.3.1 Railway engine drivers and related workers

8.3.2 Motor vehicle drivers

8.3.3 Agricultural, earthmoving, lifting and other mobile materials-handling equipment operators

8.3.4 Ships' deck crews and related workers

Major Group 9. Elementary occupations

9.1 Sales and service elementary occupations

9.1.1 Street vendors and related workers

9.1.2 Shoe cleaning and other personal street services elementary occupations

9.1.3 Domestic helpers and cleaners and related workers

9.1.4 Building caretakers and window cleaners

9.1.5 Messengers, watchers and security workers

9.1.6 Garbage collectors and related labourers

9.2 Agricultural, fishery and related labourers

9.2.1 Agricultural, fishery and related labourers

9.3 Labourers in mining, construction, manufacturing and transport

9.3.1 Mining and construction labourers

9.3.2 Manufacturing and transport labourers

Major Group G. Armed forces

0.1 Armed forces

0.1.1 Armed forces

II. CLASSIFICATION OF HOUSEHOLD GOODS AND SERVICES FROM THE  
UNITED NATIONS SYSTEM OF NATIONAL ACCOUNTS (1968)\*

1. Food, beverages and tobacco

1.1 Food

- 1.1.1 Breads and cereals
- 1.1.2 Meat
- 1.1.3 Fish
- 1.1.4 Milk, cheese and eggs
- 1.1.5 Oils and fats
- 1.1.6 Fruits and vegetables other than potatoes and similar tubers
- 1.1.7 Potatoes, manioc and other tubers
- 1.1.8 Sugar
- 1.1.9 Coffee, tea, cocoa
- 1.1.10 Other funds, including preserves and confectionery

1.2 Non-alcoholic beverages

1.3 Alcoholic beverages

1.4 Tobacco

2. Clothing and footwear

- 2.1 Clothing other than footwear, including repairs
- 2.2 Footwear, including repairs

3. Gross rent, fuel and power

- 3.1 Gross rents and water charges
- 3.2 Fuel and power

4. Furniture, furnishings, and household equipment and operation

- 4.1 Furniture, fixtures, carpets, other floor coverings and repairs
- 4.2 Household textiles, other furnishings and repairs

\* Contained in A System of National Accounts, Series F, No. 2, Rev. 3 (United Nations publication, Sales No. E.68.XVII.3), table 6.1.

4.3 Heating and cooking appliances, refrigerators, washing machines and similar major household appliances, including fittings and repairs

4.4 Glassware, tableware and household utensils, including repairs

4.5 Household operation except domestic services

4.6 Domestic services

5. Medical care and health expenses

5.1 Medical and pharmaceutical products

5.2 Therapeutic appliances and equipment

5.3 Services of physicians, nurses and related practitioners

5.4 Hospital care and the like

5.5 Service charges on accident and health insurance

6. Transport and communication

6.1 Personal transport equipment

6.2 Operation of personal transport equipment

6.3 Purchased transport

6.4 Communication

7. Recreation, entertainment, education and cultural services

7.1 Equipment and accessories, including repairs

7.2 Entertainment, recreational and cultural services, excluding hotels, restaurants and cafés

7.3 Books, newspapers and magazines

7.4 Education

8. Miscellaneous goods and services

8.1 Personal care and effects

8.2 Goods, n.e.c.

8.3 Expenditure in restaurants, cafés and hotels

8.4 Packaged tours

8.5 Financial services, n.e.c.

8.6 Services, n.e.c.

III. CLASSIFICATION OF INSTITUTIONAL SECTORS FROM THE UNITED NATIONS SYSTEM OF NATIONAL ACCOUNTS (1968)\*

1. Non-financial enterprises, corporate and quasi-corporate
  - (a) Private enterprises
  - (b) Public enterprises
2. Financial institutions
  - (a) The central bank
  - (b) Other monetary institutions
  - (c) Insurance companies and pension funds
  - (d) Other financial institutions
3. General government
  - (a) Central government
  - (b) State and local government
  - (c) Social security funds
4. Private non-profit institutions serving households
5. Households, including private non-financial unincorporated enterprises

\* Contained in A System of National Accounts, Series E, No. 2, Rev. 3 (United Nations Publication, Sales No. E.68.XVII.3), table 5.1.

IV. CLASSIFICATION OF THE FUNCTIONS OF GOVERNMENT (1980)\*

MAJOR GROUPS AND SELECTED GROUPS

01 GENERAL PUBLIC SERVICES

- 01.1 Executive and legislative organs, financial and fiscal affairs, external affairs other than foreign aid
- 01.2 Foreign economic aid
- 01.3 Fundamental research affairs and services
- 01.4 General services
- 01.5 General public services n.e.c.

02 DEFENCE AFFAIRS AND SERVICES

- 02.1 Military and civil defence administration and operation
- 02.2 Foreign military aid
- 02.3 Defence-related applied research and experimental development
- 02.4 Defence affairs n.e.c.

03 PUBLIC ORDER AND SAFETY AFFAIRS

- 03.1 Police and fire protection
- 03.2 Law courts
- 03.3 Prison administration and operation
- 03.4 Public order and safety affairs n.e.c.

04 EDUCATION AFFAIRS AND SERVICES

- 04.1 Pre-primary and primary education affairs and services (ISCED Levels 0 and 1)
- 04.2 Secondary education affairs and services (ISCED Levels 2 and 3)
- 04.3 Tertiary education affairs and services (ISCED Levels 5, 6 and 7)
- 04.4 Education services not definable by level (ISCED Level 0)

\* From Classification of the Functions of Government, Series M, No. 70 (United Nations publication, Sales No. E.80.XVII.17).

- 04.5 Subsidiary services to education
- 04.6 Education affairs and services n.e.c.
- 05 HEALTH AFFAIRS AND SERVICES
  - 05.1 Hospital affairs and services
  - 05.2 Clinics, and medical, dental and para-medical practitioners
  - 05.3 Public health affairs and services
  - 05.4 Medicaments, prostheses, medical equipment and appliances or other prescribed health-related products
  - 05.5 Applied research and experimental development related to the health and medical delivery system
  - 05.6 Health affairs and services n.e.c.
- 06 SOCIAL SECURITY AND WELFARE AFFAIRS AND SERVICES
  - 06.1 Social security affairs and services
  - 06.2 Welfare affairs and services
  - 06.3 Social security and welfare affairs n.e.c.
- 07 HOUSING AND COMMUNITY AMENITY AFFAIRS AND SERVICES
  - 07.1 Housing and community development
  - 07.2 Water supply affairs and services
  - 07.3 Sanitary affairs and services including pollution abatement and control
  - 07.4 Street lighting affairs and services
  - 07.5 Housing and community amenity affairs and services n.e.c.
- 08 RECREATIONAL, CULTURAL, AND RELIGIOUS AFFAIRS AND SERVICES
  - 08.0 Recreational, cultural and religious affairs and services
- 09 FUEL AND ENERGY AFFAIRS AND SERVICES
- 10 AGRICULTURE, FORESTRY, FISHING AND HUNTING AFFAIRS AND SERVICES
  - 10.1 Agriculture affairs and services
  - 10.2 Forestry affairs and services
  - 10.3 Fishing and hunting affairs and services

- 10.4 Agricultural research and experimental development n.e.c.
  - 10.5 Agriculture, forestry, fishing and hunting affairs and services n.e.c.
  - 11 MINING AND MINERAL RESOURCE AFFAIRS AND SERVICES, OTHER THAN FUELS;  
MANUFACTURING AFFAIRS AND SERVICES; AND CONSTRUCTION AFFAIRS AND SERVICES
  - 12 TRANSPORTATION AND COMMUNICATION AFFAIRS AND SERVICES
  - 13 OTHER ECONOMIC AFFAIRS AND SERVICES
  - 14 EXPENDITURES NOT CLASSIFIED BY MAJOR GROUP
- 14.0 Expenditures not classified by major group

V. INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES (ISIC, 1968)\*

MAJOR DIVISIONS AND SELECTED DIVISIONS AND CATEGORIES

1. Agriculture, hunting, forestry and fishing

Agriculture and hunting

111 Agriculture and livestock industries

112 Agricultural services

113 Hunting, trapping and game propagation

Forestry and logging

121 Forestry

122 Logging

Fishing

2. Mining and quarrying

3. Manufacturing

4. Electricity, gas and water

5. Construction

6. Wholesale and retail trade and restaurants and hotels

Wholesale trade

Retail trade

Restaurants and hotels

Restaurants, cafes and other eating and drinking places

Hotels, rooming houses, camps and other lodging places

7. Transport, storage and communication

8. Financing, insurance, real estate and business services

\* From International Standard Industrial Classification of All Economic Activities, Series N, No. 4, Rev.2 (United Nations publication, Sales No. E.68.XVII.8).

- 9. Community, social and personal services
  - 91. Public administration and defence
    - 1. General public services
    - 2. Defence
  - 92. Sanitary and similar services
  - 93. Social and related community services
    - 931. Education services
    - 932. Research and scientific institutes
    - 933. Medical, dental, other health and veterinary services
    - 934. Welfare institutions
    - 935. Business, professional and labour associates
    - 939. Other social and related community services
  - 94. Recreational and cultural services
    - 941. Motion picture and other entertainment services
    - 942. Libraries, museums, botanical and zoological gardens and other cultural services n.e.c.
    - 949. Amusement and recreational services n.e.c.
  - 95. Personal and household services
    - 951. Repair services not elsewhere classified
    - 952. Laundries, laundry services, and cleaning and dyeing plants
    - 953. Domestic services
    - 959. Miscellaneous personal services
  - 96. International and other extra-territorial bodies

VI. INTERNATIONAL CLASSIFICATION OF DISEASES, INJURIES  
AND CAUSES OF DEATH (ICD, 1975 REVISION)\*

ADAPTED MORTALITY LIST, NINTH REVISION

Infectious and parasitic diseases (I)

- AM 1 Cholera (001)
- AM 2 Typhoid fever (002.0)
- AM 3 Other intestinal infectious diseases (remainder of 001-009)
- AM 4 Tuberculosis (010-018)
- AM 5 Whooping cough (033)
- AM 6 Meningococcal infection (036)
- AM 7 Tetanus (037)
- AM 8 Septicæmia (038)
- AM 9 Smallpox (050)
- AM 10 Measles (055)
- AM 11 Malaria (084)
- AM 12 All other infectious and parasitic diseases

Neoplasms (III)

- AM 13 Malignant neoplasm of stomach (151)
- AM 14 Malignant neoplasm of colon (153)
- AM 15 Malignant neoplasm of rectum, rectosigmoid junction and anus (164)
- AM 16 Malignant neoplasm of trachea, bronchus and lung (168)
- AM 17 Malignant neoplasm of female breast (174)
- AM 18 Malignant neoplasm of cervix uteri (180)
- AM 19 Leukaemia (204-208)
- AM 20 All other malignant neoplasms (remainder of 140-208)

\* From Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, vol. 1 (Geneva, World Health Organization, 1977).

Selected endocrine, nutritional and metabolic diseases (part of III)

- AM 21 Diabetes mellitus (250)
- AM 22 Nutritional marasmus (251)
- AM 23 Other protein-calorie malnutrition (262, 263)

Anaemias (part of IV)

- AM 24 Anaemias (280-285)

Circulatory diseases (VII)

- AM 26 Acute rheumatic fever (390-392)
- AM 27 Chronic rheumatic heart disease (393-398)
- AM 28 Hypertensive disease (401-405)
- AM 29 Acute myocardial infarction (410)
- AM 30 Other ischaemic heart diseases (411-414)
- AM 31 Cerebrovascular disease (430-438)
- AM 32 Atherosclerosis (440)
- AM 33 Other diseases of circulatory system (remainder of 390-459)

Selected respiratory diseases (part of VII)

- AM 34 Pneumonia (480-486)
- AM 35 Influenza (487)
- AM 36 Bronchitis, emphysema and asthma (490-493)

Chronic liver disease and cirrhosis (571 in IX)

Perinatal conditions (xv)

- AM 46 Birth trauma (767)
- AM 47 Other conditions originating in the perinatal period

Other diseases

- AM 25 Meningitis (320-322)
- AM 37 Ulcer of stomach and duodenum (531-533)
- AM 38 Appendicitis (540-543)

AM 40 Nephritis, nephrotic syndrome and nephrosis (580-589)

AM 41 Hyperplasia of prostate (600)

AM 45 Congenital anomalies (740-759)

AM 46 Birth trauma (767)

AM 47 Other conditions originating in the perinatal period

AM 48 Signs, symptoms and ill-defined conditions (780-799)

AM 49 All other diseases (remainder of 001-700)

Motor vehicle accidents

AM 50 Motor vehicle traffic accidents (E810-E819)

Other accidents

AM 51 Accidental falls (E880-E889)

AM 52 All other accidents, and adverse effects (remainder of E800-E819)

Suicide

AM 53 Suicide and self-inflicted injury (E950-E959)

Homicide

AM 54 Homicide and injury purposely inflicted by other persons (E960-E969)

Other violence

AM 55 Other violence (E970-E999)



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