The employment situation of people with disabilities:

Towards improved statistical information
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In recent years, many countries have made significant efforts to improve statistics on their labour markets. Regular labour force surveys have been set up and the use of international standards and definitions has been intensified. As a result, accurate and up-to-date labour market information is now available for many regions of the world. Yet, comprehensive, reliable statistical information on the employment situation of people with disability is rarely available, especially in developing countries. Furthermore, international comparability is lacking in the field of disability statistics since definitions of disability are mostly based on individual national regulations rather than international standards.

In 2001, the Washington Group was set up by the United Nations Statistical Commission to address these questions and promote the development of disability measures suitable for censuses and national surveys. The Bureau of Statistics of the International Labour Office (ILO) took part in the Washington Group deliberations, with a specific focus on developing employment-related measures. The ILO’s work in this is linked to and has been supported by an ILO technical cooperation project Promoting the employability and employment of people with disabilities through effective legislation, funded by the Government of Ireland, which recognizes the importance of reliable statistical data on the employment of persons with disabilities in monitoring the implementation of legislation. This point is underscored by provisions in the UN Convention on the Rights of Persons with Disabilities, adopted in 2006.

This guide highlights basic knowledge from the fields of labour and disability statistics which has to be combined for a comprehensive description of the employment situation of people with disabilities. It complements an earlier compendium of national statistical methodologies, ‘Statistics on the employment situation of people with disabilities’, and will be of great relevance to countries around the world as they work to promote and monitor equal employment opportunities for disabled persons.
Preface

Ferdinand Lepper of the Bureau of Statistics represented the ILO in the Washington Group and was responsible for preparing this guide. Barbara Murray, ILO Skills and Employability Department, worked with Mr Lepper in ensuring that disability considerations were accurately reflected.

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During the last decades of the twentieth century and continuing into the twenty-first, many governments in the world have undertaken efforts to promote employment opportunities for people with disabilities. Legislation of different types has been introduced and ILO has given information and advice to governments (ILO 2004a), as well as employers’ and workers’ organizations (ILO 2002).

In examining the provisions of the different types of legislation, it is important to focus on how they are implemented and the effects they have on the implementation of these and their effects on employment opportunities for people with disabilities. This question is central to the broader social and political rights of disabled people, which are closely linked to their economic empowerment. The Convention on the Rights of Persons with Disabilities (UN 2006), adopted by the General Assembly of the United Nations (UN) in December 2006, clearly states their right to work (article 27) and includes provisions for the collection of statistical data (article 31).

While statistics on people with disabilities are available in a number of countries, mainly through population censuses, special ad hoc surveys, household surveys, or as a by-product of administrative systems, these data tend to vary greatly in many respects. There are wide differences between countries and data sources as to the concept and definition of “disability”, the terminology used, the coverage of the data sources, the classifications used, periodicity of data collection and reference period. In addition, it is not always possible to identify those people with...
disabilities who are working or not working but would like to work and are able to work.

Useful data on the employment situation of this population group is rarely available at the required level of detail and periodicity and in a number of countries there are currently no data at all on employment status in conjunction with disability (see section 2.2). Countries mainly rely on population censuses and household surveys to compile these statistics, which means that information is generally collected at 5- or 10-yearly intervals or at one point in time only. These sources provide detailed data on employment status, and generally take into account the relevant international standards dealing with employment and unemployment statistics. Definitions of disability come from national legislation or have been developed by national statistical offices, ministries and/or non-governmental organizations (NGOs) concerned with disability; less than 50 per cent of the countries use international standards on disability.

In recent years significant resources related to the improvement of disability statistics have been made available to countries by international institutions. In particular, the 2001 UN guidelines and principles for the development of disability statistics (UN 2001) provide assistance on the collection, compilation and dissemination of such statistics and include examples from developing as well as developed countries (see section 4.3).

In 2001, the World Health Organization (WHO) adopted the International Classification of Functioning, Disability and Health (ICF), (WHO 2001), which has been endorsed by 191 Member States. The ICF uses a definition of disability that is based on activity limitation and participation restrictions rather than on physical attributes. It is the revision of the International Classification of Impairments, Disabilities, and Handicaps (ICIDH), first published by WHO for trial purposes in 1980.

Also in 2001, the UN Statistical Commission authorized the formation of the Washington Group (see section 4.2) to develop disability measures suitable for censuses and national surveys. The Group decided to produce small and extended sets of such measures for use in different statistical
formats, which will be accompanied by descriptions of their technical properties and methodological guidance for implementation. Questions for the short set on disability have been developed and comprehensive testing was carried out in 2006 (see section 4.3.2). The ICF has been accepted as the basic framework for the development of the sets.

In preparation of the 2010 census round, the UN Statistical Commission, at its session in March 2007, has adopted the global *UN principles and recommendations for population and housing censuses* (UN 2007). It contains recommendations with regard to concepts, definitions and classifications on disability, taking into consideration the work of the Washington Group (see section 4.3).

**Purpose of this guide**

This guide provides information on current standards and definitions in the fields of employment and disability, as well as descriptions of good practices related to the compilation of statistics on the employment situation of people with disabilities, so that better data on this topic can be produced. It is directed to countries wishing to gather or improve such statistics in order to meet policy needs and it is an attempt to bring together all relevant information in this field.

The main objective of this guide is to inform users about the following areas:

- current state of national methodologies for the compilation of statistics on the employment situation of people with disabilities;
- standards and definitions for the measurement of the different sub-groups of the economically active population;
- concepts and methods for the measurement of disability;
- useful sources and survey questions on disability.

Information on these topics has been drawn from various sources, each giving detailed analysis and description of its specific area. These sources should be consulted for in-depth studies; they are cited in the appropriate sections and listed in the bibliography.
Outline of guide

Section 1 draws on the ILO concept of decent work as a basis for the definition of some major indicators that could be employed to describe the employment situation of people with disabilities, and describes the necessary content of labour statistics from which these indicators could be derived.

Section 2 examines the current state of national methodologies related to the field of statistics on the employment situation of people with disabilities and partly is an excerpt from a working paper prepared by the ILO Bureau of Statistics (ILO 2004b).

Section 3 provides a summary of all relevant standards and definitions for the measurement of the economically-active population, employment and unemployment and gives references to the most important documents in this field (ILO 2004b).

Section 4 outlines the recent international initiatives aiming to improve the measurement of disability. It covers the work that has been done so far by the UN Statistics Division (UNSD), the WHO and the Washington Group on Disability Statistics.
A central objective of the International Labour Organization (ILO) is the promotion of decent work for all, which is described as “productive work in which rights are protected, which generates an adequate income, with adequate social protection.” (ILO 1999). Decent work is a crucial element of the quality of life; it should provide people with a reasonable income, social integration and make them feel their own worth. Furthermore, it stands for an effective means to reduce poverty and to contribute to sustainable development.

1.1 The decent work concept

The concept of decent work is defined by the following six dimensions:

- **Opportunities for work**: all persons who want work should be able to find work.
- **Work in conditions of freedom**: it should be freely chosen; bonded labour and slave labour should be eliminated and workers may join workers’ organizations.
- **Productive work**: adequate earnings for workers.
- **Equity in work**: no discrimination at work and in finding work.
- **Security at work**: safeguard health, pensions and livelihoods, provide adequate protection in case of loss of work and livelihood.
- **Dignity at work**: respectful treatment of workers.

These six dimensions of decent work are relevant for everybody and in particular the poorest and most vulnerable groups. There is no doubt that most disabled people are disadvantaged on the labour market and that their employment prospects should be improved. Disabled persons should enjoy equality of opportunity and treatment in respect of access to, retention of and advancement in employment which, wherever possible, corresponds to their own choice and takes account of their individual suitability for such employment (ILO 1983). Hence, statistical indicators must depict the employment situation of people with disabilities in the same way as for the general labour force and also reflect special provisions being made for this particular subgroup.
1.2 Measuring decent work with statistical indicators

The Statistical Development and Analysis Unit of the ILO Policy Integration Department has developed a set of indicators for the measurement of the six dimensions of decent work (Anker et al. 2002). These indicators were first presented to the 17th International Conference of Labour Statisticians (ICLS) in Geneva, November 2003 (ILO 2003a).

The proposed set comprises in total 47 statistical indicators, which would be applied in the measurement of decent work. In order to cover all aspects of the six decent work dimensions, these indicators are grouped into 11 general categories of the labour market:

1. employment opportunities;
2. unacceptable work;
3. adequate earnings and productive work;
4. decent hours;
5. stability and security of work;
6. combining work and family life;
7. fair treatment in employment;
8. safe work environment;
9. social protection;
10. social dialogue and workplace relations;
11. economic and social context of decent work.

Since the concept of decent work is also concerned with improving the situation of working people, it is important to measure changes over time. This implies that statistics should be compiled with a certain periodicity ensuring a reasonable degree of intertemporal comparability.

For the evaluation of the employment situation of people with disabilities, two dimensions of decent work are of particular relevance: opportunities for work and adequate (equal) earnings. Although other indicators listed in the working paper on “Measuring decent work with statistical...
indicators” (Anker et al. 2002) may also be important, it appears convenient to concentrate on indicators which, to a certain extent, are already available for the general labour force and are likely to be implemented for the group of people with disabilities. Six indicators have been selected from the whole set mentioned above for a further discussion:

1. The **labour force participation rate** measures the extent to which a country’s working-age population in total (in this case, the sub-group of people with disabilities) is economically active. It is calculated by dividing the labour force (comprising the employed and the unemployed) by the working age population.

2. The **employment-population ratio** measures the proportion of the working-age population (in this case, the sub-group of people with disabilities) that is employed. It provides information on the extent to which an economy generates work for all as well as for the subgroup of people with disabilities.

3. The **unemployment rate** measures the number of unemployed people as a percentage of the labour force. Persons (in this case, people with disabilities) of working age are classified as unemployed if they were not employed or had not worked for even one hour in any economic activity (paid employment, self-employment or unpaid work for a family business or farm), were available for work, and had taken active steps to seek work during a specified recent period (in general the past four weeks) (ILO 1982).

4. **Time-related underemployment rate** is the number of all employed persons (in this case, employed people with disabilities), who worked less than a specified number of hours during the reference period and are willing and available to work more hours, divided by the number of all employed persons (all employed people with disabilities). The term “time-related underemployment” describes a situation where a sufficient number of hours cannot be worked and so earnings may not be adequate (ILO 1998).

5. The **low pay rate** measures the percentage of the employed population (in this case, employed people with disabilities) whose average hourly earnings is below either a certain percentage of the median of the distribution or an absolute minimum. The indicator is defined as
rate of gross earning (ILO 1973) for one hour of work in order to distinguish between the rate of pay and the amount of work performed. The percentage cut-off of the median has to be defined; it varies from 25 per cent to 50 per cent in OECD countries, where minimum wage rates have been established.

6. **Average earnings in selected occupations or economic activities** can particularly be useful to compare wage differentials between different categories of workers, for example, between employed persons in general and those with disabilities in particular. However, these comparisons can only be made if they are based on the same number of hours worked. The selection of these specific occupations or economic activities should align with those areas where people with disabilities are predominantly employed. The comparisons also should take into account that different skill-levels of workers have a significant impact on wage categories.

For the evaluation of the employment situation of people with disabilities each of these indicators has to be compiled for this particular group and then be compared with the indicator for the total labour force. However, it might be improper to compare these indicators without taking into account the structural differences between the two basic totalities – the general labour force and its subgroup of people with disabilities. Comparability can only be established by including statistical information about these differences. Therefore, the compilation of statistics on the employment situation of people with disabilities should also include such characteristics, which depict the special situation and constraints of this group (for example, level of education, training and special needs with view to employability).

With regard to these comparisons and for the provision of information needed for planning and evaluation purposes, it is essential to also measure the characteristics of the disabled labour force in certain detail. This goes beyond simply knowing whether somebody is disabled or not. In addition to variables collected for the general labour force, it is also essential to collect information on such variables as:
• type of disability;
• severity of disability / level of support needs;
• aids or support needed to improve/establish employability.

Sections 3 and 4 of this guide focus on the extent to which and how this information can be collected. For the purpose of evaluating the employment situation of people with disabilities, it is indispensable that variables of the two areas – employment and disability – can be cross-classified. This implies that all information should be taken from the same source.

As already mentioned above for the decent work concept in general, indicators should not only help to analyse the current situation but also measure changes over time. This implies that statistics should be compiled with a certain periodicity ensuring a reasonable degree of comparability over time. For the evaluation of the employment situation of people with disabilities, against the background of labour market development in general, it would be sufficient to compile such statistics in intervals of several years since the main characteristics (such as indicators 1 to 6) of the labour force do not change at short notice.1 The European Union (EU) has envisaged asking questions on disability every five years in the labour force surveys of its Member States (see “survey” section in section 4.2).

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1 Seasonal fluctuations can be neglected in the context of this guide.
2.1 Statistics on the total labour force

The vast majority of countries compile labour force statistics that allow calculation of indicators 1, 2 and 3 for the total labour force as described in section 1:

- labour force participation rate;
- employment to population ratio;
- unemployment rate.

This information can be disaggregated by characteristics such as sex, age, occupation, and economic activity so that employment and unemployment situation of a country’s population can be analysed for various sub-groups. It can be obtained in all countries that conduct labour force surveys and/or population censuses. The measurement of changes over time is possible if such data collection exercises are repeated, preferably at regular intervals.

However, in many countries, data sources for measuring the total labour force do not provide sufficient information to calculate indicators relating to underemployment and earnings (indicators 4, 5 and 6). The availability and reliability of data for these indicators is significantly limited in current surveys for various reasons.

- Only few countries currently compile information on the availability for and willingness to work additional hours (the criteria for the definition of time-related underemployment) (ILO 1998).
- Workers often have more than one job and in this case measurement of time-related underemployment and adequate income is difficult in many regular labour force surveys or population censuses, which sometimes collect information on the characteristics of the main job only.
- Many people are reserved or even hold back information if they are asked to answer questions on income and earnings, which has a major impact on the reliability and completeness of the data collected. Proxy response in household surveys is another source of inaccurate information.
The measurement of earnings is often limited to employees in labour force surveys as the accurate determination of hourly earnings is difficult for self-employed persons and family workers.

In order to compile data that would allow the easy determination of indicators 4 to 6 (time-related underemployment and earnings), it would be necessary to develop appropriate questions and integrate these into existing household surveys for measuring the total labour force. The problems of enlarging existing household surveys can be minimized by running additional modules on specific issues on a rotational basis. Nevertheless, to include additional questions on time-related underemployment and earnings would involve competing for limited household survey resources. Such questions would not realistically be included in a population census.

The concept of measuring decent work has only recently been proposed, and consequently many of its indicators still need additional conceptual and measurement development, including the design, testing and calibration of suitable survey questions.

2.2 Statistics on the employment situation of people with disabilities

As mentioned above, compiling statistical information on the employment situation of people with disabilities requires cross-classification of both employment and disability variables, which implies that all information should be taken from the same source. The problem of limited resources for household surveys and population censuses is a constraint here, too.

In order to analyze the different approaches currently used in this field of statistics the ILO Bureau of Statistics, in collaboration with the ILO Skills and Employability Department, has reviewed national practices throughout the world and compiled a compendium of national methodologies (ILO 2004b). A questionnaire was sent to ministries of labour and national statistics offices in early 2003 aimed at collecting information about the availability of statistics on disabled persons, especially about their
employment situation, and the methods used by countries to compile them. In completing the questionnaire, addressees were requested to consider involving other national bodies that might compile statistics and/or carry out research on the employment situation of persons with disabilities, such as ministries of health or education and training. In some cases, the addressees asked these other agencies to complete the questionnaire themselves. Only a few respondents forwarded the questionnaire to national employment services, which often compile statistics on unemployed persons with disabilities.

Questionnaires were sent to ministries of labour and to national statistical offices in 217 countries and regions. By the end of October 2003, the Bureau of Statistics had received answers from 111 countries, a response rate of more than 50 per cent. Of these, 16 countries indicated that they did not have statistics on the employment situation of people with disabilities, while 12 countries completed questionnaires describing their plans to establish such data collection.

The information supplied by countries was used to compile the methodological descriptions presented in the ILO compendium. It was also analyzed to determine the different types of approaches used by countries, and used in developing this ILO guide for countries setting up or improving their statistics in this field. Information on 130 national sources was published in the compendium. Statistics are available from 118 of these, covering 83 countries.

The experience of the ILO Bureau of Statistics in similar exercises to collect methodological information from countries has shown that a response rate of about 50 per cent can be regarded as reasonable. Nevertheless, half of the countries to which questionnaires were sent did not respond, while others described only one of several data sources. Consequently, the analysis is only partially representative of the current situation throughout the world. Results for the main aspects of methodology are summarized in the following sections.
2.2.1 Data sources

Two types of data sources are predominantly used by countries to compile statistics on the employment situation of people with disabilities: population censuses and household surveys. Other sources are establishment surveys and administrative registers.

Population census

Commonly, population censuses (30 per cent of the descriptions received) are employed to gather information on the employment situation of people with disabilities; in developing countries this is very often the only available source. This type of data source normally covers the total population but is only carried out at intervals of ten and more years.

Household survey

The most frequently used type of source is a household survey. These surveys (40 per cent of the descriptions received) mostly target the labour force (Labour force surveys - LFS) and are conducted at yearly or even shorter intervals. Questions on disability are not a regular part of these surveys but are often concentrated in a module that is attached to the survey. As a result, information on the employment situation of people with disabilities is very often compiled by such LFS only once every five years or at irregular intervals.

Some of the countries (10 per cent of the descriptions received) reported on special household surveys on disability. This type of source contains very detailed questions related to health and disability but it seems that the employment information is not usually sufficient for determining the employment situation of disabled persons. Furthermore, most of these special surveys are conducted only at very long and differing intervals, or are only once-off surveys.

Establishment survey

Only nine national responses were related to establishment surveys. Since some countries described only the main source of their available data, this type of source may in reality be employed more frequently. The information received indicates that establishment surveys are used as a
monitoring tool in countries that have established quota legislation for the employment of people with disabilities. These surveys are only directed to establishments exceeding a certain size (in terms of the number of employees), which is laid down in the quota legislation and, therefore, do not cover the whole labour market.

**Administrative sources**

Sixteen per cent of the descriptions related to administrative records as a source to compile statistics on the employment situation of people with disabilities. Again, this low frequency probably may not reflect the real availability of this source of information since some countries only mentioned the main data source on disability. The information obtained is generally based on administrative registers that are operated by public employment services (disabled jobseekers) and administrations that are responsible for disability benefits (pensioners, veterans, and so forth). These data compilations are based on regulations in countries where a person’s reduced ability to work is officially certified.

The periodicities of the different sources vary from ten years (population censuses) to monthly intervals (statistics on jobseekers compiled by public employment services). Labour force surveys, the main source of data on employment status in the majority of reporting countries, generally collect data on people with disabilities at intervals of more than one year (often five years).

### 2.2.2 Coverage

Nearly 40 per cent of the sources (population censuses) cover the total population of all age groups. Other sources such as labour force surveys often cover persons of working age only and do not cover the institutional population. Inclusion of the latter group was only mentioned in three cases. The percentage of the total population covered by the source was only specified for censuses (nearly 100 per cent) and labour force surveys (between 60 and 70 per cent).

Most (88 per cent) of the sources cover the whole country. The geographical coverage of a source is limited if regions are remote and sparsely set-
tled so that results for these regions are very expensive to obtain and on the other hand only have a minor impact on any aggregate statistics.

The question on the coverage of all types and sizes of establishments was answered positively by nearly 70 per cent of the countries. However, the question only really applies to establishment surveys, since the nature of population censuses and household surveys implies the inclusion of employment in all establishments.

### 2.2.3 Disability information

In order to collect information on the coverage of different types of disabilities, the questionnaire provided the WHO’s ICIDH categories. Most of the descriptions (56 per cent) stated that all these types of disabilities were covered by the respective sources. Nevertheless, many countries collect their data on the basis of differing classification schemes. Questions in the sources are mainly targeted at physical impairments (blind, mute, deaf, loss of limbs, etc.) rather than at activity limitations as defined by the ICF. Learning and behavioural difficulties are mostly summarized under “mental problems”. Very few countries specifically address personal care difficulties.

In some cases, it was stated that it was difficult to obtain exact data on people with disabilities due to differences in interpretation of the term “disability”. Moreover, problems arise from the fact that disability is stigmatized in some countries and therefore people are reluctant to admit that there may be disabled family members.

According to country replies, 78 per cent of the sources use the term “disability” (or the appropriate word in the respective national languages) to denote “disability”. The terms “illness” or “health problems” are used for this purpose in 25 per cent of the sources, whereas “activity limitations” occur in only 8 per cent. Frequently, more than one of these terms is used.
The survey showed great variation in the definitions of disability used:

- 38 per cent use the ICIDH (ICF is only used in four sources);
- 31 per cent derived from national law or regulations;
- 13 per cent developed for statistical use by national statistical offices;
- 8 per cent have been developed by ministries of health and/or NGOs;
- 5 per cent are based on the UN Principles and Recommendations for housing and population censuses (UN 1997).

Questions used to identify persons with disabilities can be grouped into three types as follows:

- 52 per cent of the sources use questions that directly ask whether a person is disabled (for example, “Do you have any longstanding health problem or disability?”);
- 17 per cent identify disabled persons by asking for a disability certificate issued by a medical doctor;
- 15 per cent ask whether a person has difficulties in performing daily activities.

In 16 per cent of the cases, no answer was given or the answer was not relevant.

In more than 50 per cent of the sources reported, no minimum duration of disability was specified for the person to be included in the statistics. Many (44 per cent) of the responses identified a minimum duration of disability, which in most cases is six months. Only few countries have stipulated other minimum durations, such as one year or three months.
2.2.4 Employment information

The majority of available statistics on the employment situation of people with disabilities use all classifications related to the field of employment, such as:

- employment situation;
- status in employment;
- occupation;
- economic activity.

In general, sources cover all categories of the variables related to the employment situation and the status in employment. Limitations of the coverage only occur when statistics are related to special target groups (for example, jobseekers). Most (89 per cent) of the sources cover all economic activities; the remaining 11 per cent often exclude private households and/or extra-territorial organizations (foreign military, international organizations, diplomatic services).

2.3 Conclusions

The results of the 2003 review of national methodologies show that countries mainly rely on population censuses and household surveys to compile statistics on the employment situation of people with disabilities. This means that information is generally collected at 5- or 10-yearly intervals or at one point in time only. According to the country replies, these sources provide detailed data on employment status, and generally take into account the relevant international standards dealing with employment and unemployment statistics. With regard to disability, sources usually use definitions that come from national legislation or that have been developed for statistical purposes; less than 50 per cent of the countries are using the relevant international standard ICF or its predecessor ICIDH (see section 4.1.1).

Cross-classification of the two variables “disability” and “employment” is the fundamental basis for the compilation of statistics on the
employment of disabled persons. It can be stated that, for the employment component, sources predominantly provide suitable data to determine indicators 1 to 3 as defined in section 1. For the determination of indicators 4 to 6, these sources currently do not provide all information needed; further enlargement of labour force surveys would be necessary to make this possible. With view to measuring employment, this guide will, therefore, concentrate on definitions and classifications that are related to those indicators, for which suitable data is available from current labour force surveys and - to a certain extent - from population censuses (see section 3).

Section 4 is dedicated to the question of compiling information on the population subgroup of people with disabilities.
This section gives an overview of the main concepts and standards for the measurement of the economically-active population - employment and unemployment. It also describes international standards which should be applied for the compilation of labour force statistics. It draws largely on an ILO manual (Hussmanns et al. 1990) that has been issued to provide advice on the design and redesign of labour force surveys. Sections of this manual will be referred to whenever their importance for the employment situation of people with disability is evident and/or special arrangements for the measurement of the group of people with disabilities have to be made.

The ILO manual on measuring employment was completed and published before the 1993 review of the System of National Accounts (SNA), and therefore does not include amendments arising from the changes to the SNA production boundary. A paper summarising the effect of these changes has been published (Hussmanns 2007). No additional major changes are expected as a result of the 2007 review of the SNA.

The ICLS, which has been held every five years since 1923, is the major forum for the discussion and adoption of international standards and definitions in labour statistics. Its resolutions are related to various aspects of labour and have been applied in national labour force surveys by most countries, (ILO 2000). With regard to measuring the employment situation of people with disabilities, a resolution of the 13th ICLS (1982) concerning statistics of the economically-active population, employment, unemployment and underemployment (ILO 1982) defines the basic concept for the compilation of labour force statistics and is the underlying document for sections 3.1 to 3.4.

### 3.1 The economically-active population

The economically-active population comprises all persons of either sex who furnish the supply of labour for the production of goods and services.

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2 The documents for ISCO and ICSE are available at http://www.ilo.org/public/english/bureau/stat/class/index.htm
as defined by the UN SNA\textsuperscript{3} during a specified time-reference period (resolution of the 13\textsuperscript{th} ICLS, paragraph 5). These persons are either employed or unemployed as defined in further paragraphs (see sections 3.2. and 3.3).

The resolution distinguishes the usually active and the currently active population. The major difference between the two is determined by the specification of the period during which a person fulfils the criteria on being classified as employed or unemployed.

<table>
<thead>
<tr>
<th>Usually active population:</th>
<th>Currently active population:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria fulfilled during a long reference period (for example, preceding 12 months)</td>
<td>Criteria fulfilled during a short reference period (for example, one week or day)</td>
</tr>
</tbody>
</table>

The currently active population is also denominated as the labour force.\textsuperscript{4}

Most labour force surveys use the concept of ‘current economic activity’, relating to activities in a short period of time such as a day or a week. However, for the compilation of statistics on the employment situation of people with disabilities, it may be worth considering use of the concept of the ‘usual economic activity’, since a longer reference period could better depict the activity status of this population sub-group. For various reasons, including some health-related matters, many people with disabilities tend to have more and longer periods of inactivity, so that their economic activities would not be captured by a brief reference period.

The implementation of the concept of the ‘usually active population’ has limitations, however, because of its retrospective measurement over a long period such as a year (see chapter 4, paragraph 2, of the ILO manual cited above). The concept mostly measured in labour force surveys is that of the currently active population. Even then, an additional question with a longer reference period could be asked of those persons who have been identified as disabled.

\textsuperscript{3} see UN 1993. The SNA 1993 is currently being updated by the Intersecretariat Working Group on National Accounts.

\textsuperscript{4} For more details see chapters 3 and 4 of Hussmanns et al. (1990).
3.1.1 Scope of the population

Measuring the status of the economic activity (employed, unemployed, not economically active) of the population should, in principle, cover the entire population irrespective of sex, age, ethnic group, and so forth. In practice, however, many countries make certain restrictions in their labour force surveys. Some considerations on the scope of the survey population as well as the scope of the population of interest should be taken into account when planning data collection on the employment of people with disabilities:

- total or civilian population;
- including or excluding the institutional population;
- setting age limits;
- including or excluding particular population groups (for example, categories of disabled people).

**Total or civilian population**

Armed forces are often excluded from the scope of the survey population since information on this group is often regarded as secret and, moreover, the bulk of its members live in barracks or military zones, locations which are often excluded from the scope of the survey for practical reasons. As the employment rate of people with disabilities in armed forces can be assumed to be negligible, the exclusion of armed forces from a survey can be regarded as irrelevant in the context of this paper. The employment situation of people with disabilities can be most easily analyzed on the basis of statistics on the civilian population.

**Including or excluding the institutional population**

The exclusion of the institutional population in many surveys is basically due to technical considerations of the sampling design and its impact on the size of the total economically-active population should not be significant for most countries. The number of inmates of institutions who are engaged in economic activities is generally small. But in the case of economically-active people with disabilities the share of those living in institutions may be significant. If the institutional population is not covered by a survey, information should be gathered from agencies
concerned in order to complement the figures for the population with disabilities (economically active and not active). This procedure can be deemed as more appropriate than changing the whole scope of the survey.

**Setting age limits**

The international standards do refer to a minimum age limit for the measurement of the economically-active population, though a particular value is not specified. The minimum age limit in surveys varies among countries; the majority of them, however, use 15 years as the minimum age limit. The UN principles and recommendations for population and housing censuses (UN 1997) specify that the minimum age limit should never be higher than 15 years. In order to permit international comparisons, it is recommended that any tabulations should at least distinguish between persons under 15 years of age and those 15 years of age and over. It is suggested that people with disabilities younger than 15 should not be included in the measurement of the economically-active population in the present context.

A maximum age limit is not recommended, thus, not used by most of the countries. Nevertheless, some countries have set an upper limit for counting persons as part of the economically-active population or inquiring about the economic characteristics of people older than 64 years. It is suggested that persons with disabilities older than 64 years should not be included in the economically-active population in the present context.

Setting the age limits 15 and 64 for the determination of indicators on the employment situation of people with disabilities would not interfere with standards in current surveys.

**Including or excluding particular population groups**

Particular population groups are excluded generally due to practical reasons of sampling. It is often too costly to include population groups which do not have a significant impact on the total economically-active population. In order to depict the situation of people with disabilities accurately, efforts should be made to include as many population groups as possible. As already mentioned for the institutional population, this can also be achieved by adding information from other sources (for example, administrative records, statistics of welfare organizations).
In many labour force surveys, filter questions are constructed in a form that may exclude people with disabilities from further questioning on employment and unemployment. For example, the list of main reasons for not having worked during the reference period contains “disability” at the same level as “unemployed” or “at school” and the questionnaire then skips to the end of the employment section. As a result, disabled workers without work during the reference period are automatically assigned to the “not economically-active” population. It is suggested that such filter questions should, therefore, be changed accordingly.

3.1.2 Scope of economic activity

In the international SNA 1993 (UN 1993), the concept of economic activity is defined as production of goods and certain services. Accordingly, persons should be counted as economically active if they contribute or are available to contribute to this production. Specifications of the SNA 1993 for economic activity comprise:

- the production of goods and services that can be sold in markets or at least be capable of being provided by one institutional unit to another, with or without charge. Institutional units are corporations, government units, non-profit institutions and households.
- the production of goods or services provided free to individual households or collectively to the community by government units or non-profit institutions serving households.
- the production of all goods and certain services that could have been supplied to others on the market but are actually retained by their producers for their own use, such as:
  - agricultural goods by household enterprises for own final consumption;
  - other goods for own final use by households: the construction of dwellings, the production of foodstuffs and clothing, and so forth;
  - services for own final consumption by owner occupiers;
  - domestic and personal services for consumption within the same household, if provided by paid domestic workers.
Measuring the economically-active population

Since people with disabilities are often working in households, it is important to refer to these descriptions to assign the appropriate activity status (for example, a disabled worker in a household should be counted as economically active if he/she is helping in gathering berries, but not be counted if he/she is helping in the preparation and serving of meals).

3.1.3 Measurement issues

Even if the SNA concept of economic activity is complex, measurement of the economically-active population should not be difficult in the case of persons working in regular full-time paid employment or self employment. Any of the conventional questions on “work” or “economic activity” in a survey will lead to accurate responses from persons with these “core” employment characteristics. But the more the work situation deviates from this, the more economic activities (such as casual work, home-based work, unpaid family labour and non-market production) may remain unreported, if this is the only question asked.

The share of people with disabilities working in less regular employment situations can definitively be assumed higher than the total labour force. Underreporting of this employment group would, therefore heavily distort the analysis of the employment situation of people with disabilities. The measures to be taken to reduce such underreporting will depend on national conditions, in particular, on the extent and nature of non-core employment situations prevailing in the country, especially for people with disabilities. Where these situations are widespread and various, probes formulated in the form of a list of such activities may be useful.

3.2 Employment

The labour force framework is described in terms of employment, unemployment and economic inactivity. The labour force consists of all those who are employed or unemployed. Persons not in the labour force are classified as not economically active. In this framework, employment is measured with respect to a short reference period (one week or one day) on the basis of the concept of current activity. Employment includes all
persons at work (even if only for one hour) and also persons temporarily absent from work.

3.2.1 Definition

The detailed definition of employment has been laid down in a resolution of the 13th ICLS (ILO 1982, para. 9) as “persons above a specific age who during a specified brief period (one week or one day) were in paid employment or self-employment”. Persons in paid employment may be either “at work” (perform some work for a wage or salary during the reference period) or “with a job but not at work” (had already worked in their present job, were temporarily not at work during the reference period and had a formal attachment to their job). Persons in self-employment may be either “at work” (perform some work for profit or family gain) or “with an enterprise but not at work” (for any specific reason).

Persons temporarily not at work for various reasons (illness, vacation, strike, training, maternity leave etc.) should be considered as employed.

The following persons should be considered as self-employed:

- employers;
- own account workers;
- members of producers’ co-operatives;
- unpaid family workers at work;
- persons engaged in the production of goods for own or household consumption.

3.2.2 The one hour criterion

The resolution states that for operational purposes, the notion of “some work” may be interpreted as work for at least one hour and the reference period to which this criterion is applied can be one day or one week. Thus, the one hour criterion can mean one hour per day or one hour per week. The one hour criterion is applied by a vast majority of countries in their labour force surveys. With a view to measuring employment within
the group of people with disabilities, it is recommended to apply the one hour criterion to the reference period of one week, since this particular group may have a higher proportion of persons working only a few hours per week.

3.2.3 Particular groups

International standards on employment statistics make explicit reference to particular groups of workers which need special attention in surveys: contributing family workers, persons engaged in non-market production, apprentices, working students, and members of the armed forces. The latter has already been discussed in section 3.1.1 and for the measurement of working students and apprentices no special procedures are deemed necessary in relation to disabled persons. Further discussion is needed, however, for disabled contributing family workers and disabled persons engaged in production for own final use.

Disabled contributing family workers

A contributing family worker is a person who works without pay in an enterprise operated by a related person living in the same household. They are considered as employed if they are at work, irrespective of the number of hours worked. However, according to international standards, contributing family workers cannot be considered as being temporarily absent from work when not at work. They are therefore not considered as employed if not at work.

This definition may produce misleading results if it is applied to contributing family workers with disabilities. People with disabilities often find some work only in the framework of the economic enterprise operated by their family and will, in periods of interruptions of the production (for example, for seasonal or economic reasons), still regard themselves as being employed. In this case, the use of the concept of the usually active population would better depict the dominant pattern of activities of these people over the year. Again, additional questions with a longer reference period could be asked to contributing family workers who have been identified as disabled (see section 3.1).
Nevertheless, people can only be classified as employed if they objectively satisfy the criteria of the employment definition, irrespective of how they regard themselves subjectively. In this sense, special questions to disabled contributing family workers can provide information for the analysis of this special group, but not for any comparisons between the general employment situation and that of people with disabilities.

**Disabled persons engaged in production for own final use**

As opposed to contributing family workers participating in the activities of a market-oriented enterprise, these are persons engaged in the production of goods for own or household consumption as described in section 3.1.2 (3rd hyphen). It can be assumed that people with disabilities comprise a considerable proportion of this group. International standards specify that persons engaged in production for own final use should be counted as employed if “such production comprises an important contribution to the total consumption of the household” (ILO 1982, para. 9(6)). An exact determination of the “important contribution” provision is not an easy task. However, for disabled workers the threshold should not be established too high and, perhaps the one hour criterion can be seen as an orientation mark. Again, this can help to analyse the special situation of this group. Comparisons with the employment situation of the general labour force have to be based on the same thresholds for disabled and non-disabled persons.

**3.2.4 Measurement of hours of work**

The term “some work”, in the international definition of employment (see above), is to be interpreted as “work for at least one hour” during the reference period and the 14th ICLS emphasized that employment data should be classified by hours of work (ILO 1987, annex of ch. 4). Information on hours of work allows to distinguish between full-time and part-time employment and to identify short-time work.

There are two relevant concepts of hours of work: actual hours worked and usual hours of work. The former is related to the number of hours worked during the reference period (one week or one day) of the survey and is usually associated with the labour force framework. The latter refers to a
normal period rather than to a specific reference period and is associated with the usual activity framework.

With regard to the employment situation of people with disabilities, the measurement of hours of work should preferably be based on a concept that corresponds to the more frequent but irregular employment patterns of this group. Since the concept of hours actually worked is only a snapshot picture for a certain (short) period, the usual hours worked can better meet these needs. As already outlined above for the currently and usually active population, this does not necessarily mean that existing surveys, which employ the concept of actual hours worked, have to be changed. Again, this can be solved by asking an additional question on usual hours of work to people who have been identified as disabled. However, it has to be taken into account that people with irregular employment often cannot provide information on usual hours.

3.3 Unemployment

In the labour force framework, unemployment is regarded as a situation of total lack of work at a given point of time. It complements the measurement of employment and together, these two concepts make up the labour force. The number of unemployed persons measured in relation to the total labour force is called the unemployment rate and represents a global indicator of economic performance and of the labour market situation.

There are different sources for the measurement of unemployment - household surveys, unemployment insurance records and employment exchange registers. Household surveys are the only data source which allows joint measurement of employment and unemployment. Administrative records are based on legal regulations in a respective country and therefore, often do not comply with the international standards. As a result, these records do not cover all groups of the economically-active population and international comparability is limited.
3.3.1 Definition

Unemployment is defined as “persons above a specific age who during the reference period (one week or one day) were “without work” (not in paid employment or self-employment), “currently available for work” (during the reference period) and “seeking work” (had taken specific steps in a specific recent period to seek paid employment or self-employment) (ILO 1982, see para. 10 (1)).

The resolution does not make reference to institutional or legal provisions, such as receipt of unemployment insurance benefits or registration at a public employment exchange; it merely refers to the person’s activities during the short reference period. Since unemployment is defined as a total lack of work, a person is considered “without work” if he or she did not work at all during the short reference period (not even for one hour) nor was temporarily absent from work (see definition of employment in section 3.2.1). Thus, employment and unemployment are mutually exclusive. Persons who were involved in some casual work while seeking employment should be classified as employed.

The availability criterion serves as a test of the current readiness to start work: a person should be able and ready to work if a work opportunity is given. It also serves to exclude people who cannot take up work due to certain impediments such as illness, which would imply that people with disabilities could not be considered as unemployed if their current health status would not allow them to work. The availability criterion is defined in the resolution as availability during the reference period (one week or one day). In practice, however, this period is slightly extended by some countries, taking into consideration that often work cannot be taken up during the reference period for certain reasons (temporary illness, removal, contractual regulations etc.).

The “seeking work” criterion is defined as having taken steps to seek any type of work considered as economic activity by the international standards (see section 3.1.2). The criterion is formulated in terms of active search: a person must have actually done something specific to obtain work. Examples of active steps of seeking work are listed in point (c), paragraph 19 of the resolution. The period of seeking does not need
to be the same as the basic reference period of one day or one week - it may be longer. This is to take account of the time-lags which often follow initial steps to obtain work.

Persons engaged in non-economic activities who satisfy the criteria of unemployment “should be regarded as unemployed on the same basis as other categories of unemployed persons and be identified separately, where possible”. For this group, the resolution enumerates students, homemakers and others. People with disabilities could also be included in this group, if appropriate.

3.3.2 Relaxation of the standard definition

There may be situations in which particular groups of workers do not actively seek work because they believe that no work corresponding to their skill and needs is available (regional ties, time available, particular working hours, transportation restrictions). To capture the prevailing employment situation in many countries, the unemployment definition provides for the relaxation of the “seeking work” criterion in certain situations (ILO 1982, see paras. 10(1) - 10(2)). In this case it is recommended to test the current availability for work. “Such tests may be based on notions such as present desire for work and previous work experience, willingness to take up work for wage or salary ...”

The particular labour market conditions for people with disabilities and their increased difficulties in finding a job make it obvious that a relaxation of the “seeking work” criterion could better depict their employment status. Assuming that many of them cannot or no longer look for work but would definitely be willing to take up work, this group should be considered as unemployed and not seen as outside the labour force.

One particular group of people with disabilities, for whom the “seeking work” criterion should be relaxed, are those belonging to the group of discouraged workers. These are persons with and without disabilities who want work and are currently available but have given up any active search because they believe that they cannot find a job. This group represents unutilized labour resources and should, therefore, be measured
separately, either as part of unemployment under a relaxed definition, or as part of the “not economically-active” population. In the case of people with disabilities, the definition of “discouraged workers” should not be restricted to the labour market situation (strong belief that there is no suitable job available) but also to personal factors such as the belief that they lack qualifications, have limited work capacities, that employers are reluctant to employ disabled persons. The international standards suggest that this group should be classified separately as persons marginally attached to the labour force.

3.3.3 Measurement

Measurement of unemployment is as complex as the definition of its concept and is in principle based on measuring the three criteria. The “without work” criterion is the counterpart to the definition of employment and is, therefore, implicit in the measurement of the latter, which has already been discussed in section 3.2.4. The remaining two criteria are “seeking work” and “currently available for work”.

Seeking work

Measuring the “seeking work” criterion can be achieved by at least two questions, of which the first should assess in general whether the respondent is seeking work or looking for self-employment, and the second should ask about specific steps which have been undertaken. Answering categories for the second question can be taken from the list of examples provided in the resolution (ILO 1982, point (c), para. 10(1)):

- registration at a public or private employment exchange;
- application to employers;
- checking at worksites, farms, factory gates, market or other assembly places;
- placing or answering newspaper advertisements;
- seeking assistance of friends or relatives;
- looking for land, building, machinery or equipment to establish own enterprise;
- arranging for financial resources;
applying for permits and licences;
• other steps (for example, searching the internet).

This list should be adapted to national circumstances and additional categories may be useful with a view to offering particular labour exchange services for people with disabilities.

**Current availability for work**

The availability criterion is probably the most difficult to measure, especially for people with disabilities. As stated above, the time reference (current) in this criterion is often extended to more than one week for several reasons: this would also be adequate to take into consideration the delicate health condition of some disabled persons. When the “seeking work” criterion is relaxed, as described in section 3.3.2, the international standards suggest that questions should be formulated to investigate “desire for work and previous work experience”. The time reference used should be adapted to national circumstances (last four weeks for some countries, or last week plus the following two weeks in others).

### 3.4 Major economic classifications

There are four major standard classifications for employment characteristics of the economically-active population:

• Resolution of 14th ICLS (1987) concerning the International Standard Classification of Occupations (ISCO-88) (ILO 1987b);

• Resolution of 15th ICLS (1993) concerning the International Classification of Status in Employment (ICSE-93) (ILO 1993);

• International Standard Industrial Classification of all Economic Activities (ISIC-Rev.3) (UNSD 1988);


The ILO is the custodian of two of them (ISCO and ICSE) and necessary revisions have been adopted by the ICLS. The other two are under the responsibility of the UNSD (ISIC) and UNESCO (ISCED).
**Occupation**

Occupation refers to the kind of work done during the reference period or previously, if unemployed. The numerous occupations in a country require a classification system that groups together occupations of a similar kind in a hierarchical order. ISCO-88 is the third revision of the ISCO and groups occupations into four levels of aggregation: ten major groups subdivided into sub-major groups, minor groups and unit groups, which mostly consist of a number of detailed occupations. Altogether the classification, which is available in English, French and Spanish, comprises more than 5,000 occupations. The grouping of occupations in ISCO-88 is mainly based on the similarity of skills and the ISCED (see below) has been used to define four broad categories of skill level.

Following a resolution of the 17th ICLS (2003) concerning the revision of ISCO-88 (ILO 2003b, para. 40), the ILO Bureau of Statistics is currently developing an update of ISCO-88 through extensive consultation with experts at country and international levels. This revision will mainly deal with the changes in occupations during the last 20 years (for example, in the information technology sector) and it is not intended to fundamentally change the structure of the classification. It is planned to approve the new ISCO-08 in due time for the 2010 census round.

**Status in employment**

Data on the economically-active population classified by status in employment are collected in almost all national labour force surveys. The current version of ICSE, ICSE-93, defines six categories with reference to the distinction between paid employment and self-employment. Persons in paid employment have an employment contract, receive remuneration not directly dependent upon the revenue of the unit they work for, and may work under direct supervision. In self-employment the remuneration is dependent upon the profit from the goods or services produced and the incumbents make the operational decisions affecting the enterprise. The categories are defined as follows:

- employees work in paid employment;
• employers work on their own account or with one or few partners, hold a type of job defined as self-employment and on a continuous basis have engaged one or more persons to work for them;

• own-account workers work on their own account, hold a type of job defined as self-employment and have not engaged any employees on a continuous basis;

• members of producers’ cooperatives hold a self-employment job in a cooperative, in which each member takes part on equal footing;

• contributing family workers hold a self-employment job in a market-oriented establishment operated by a related person living in the same household;

• workers not classifiable.

**Branch of economic activity**

Industry refers to the activity of the establishment in which an employed person worked during the reference period or previously, if unemployed. The branch of economic activity of a person does not depend on specific duties or functions, but on the characteristics of the unit in which he or she works. Thus, two persons working in the same economic unit have the same economic activity, no matter what their occupations are.

The 4th revision of the International Standard Industrial Classification of all Economic Activities (ISIC-Rev.4) was approved by the UN Statistical Commission in March 2006 (see UNSD 2007). The currently most used (3rd) version of this classification (ISIC-Rev.3) is constructed at four levels: 17 categories subdivided in divisions, groups and classes; in total it comprises 292 different economic activities. Each country will generally have its own national industrial classification corresponding to its individual conditions but the ISIC serves to produce statistics which are internationally comparable.

**Level of education**

The International Standard Classification of Education, first published in 1970, has been revised in 1997 and is, therefore, denominated as ISCED-97 (UNESCO 1997). It provides a statistical framework for the
collection and reporting of internationally comparable education statistics. Furthermore, a methodology is provided that translates national educational programmes into an internationally comparable set of categories for the levels of education and the fields of education.

The levels of education are the following:

- **level 0:** Pre-primary education;
- **level 1:** Primary education, first stage of basic education;
- **level 2:** Lower secondary education, second stage of basic education;
- **level 3:** (Upper) secondary education;
- **level 4:** Post-secondary non-tertiary education;
- **level 5:** First stage of tertiary education (not leading directly to an advanced research qualification);
- **level 6:** Second stage of tertiary education (leading to an advanced research qualification).

3.5 Conclusions

As already stated in section 1, the statistical framework for the determination of indicators 1 to 3 (labour force participation rate, employment to population ratio and unemployment rate) is well established by international standards. Many countries compile these statistics for the general labour force on the basis of regular household surveys. In several developing countries, these data are at least available from population censuses every ten years. In order to determine the indicators also for the group of people with disabilities, it is necessary to enlarge these data sources by suitable questions on disability (see section 4) and, thereby, enable cross-classification of the variables employment and disability.

A few additional items may be introduced into the employment part of this exercise in order to capture more precisely those people with disabilities who are economically active:

- consider the use of the concept of the “usually active population”
• include the population living in institutions as far as employment measures for people with disabilities are concerned
• investigate the nature of non-core employment situations prevailing in the respective country, especially for contributing family workers
• apply the one hour criterion to the reference period of one week and apply it also to disabled persons engaged in production for own final use
• apply the concept of “usual hours of work”
• relax the “seeking work” criterion (unemployment) or classify the ‘discouraged workers’ as marginally attached to the labour force (inactive).

All these items should not necessarily result in changes to the general design of a labour force survey but could be introduced by asking some additional questions to those persons who have been identified as disabled. However, special questions addressed to disabled persons can provide information for the analysis of this group but not for any comparisons between the general employment situation and that of people with disabilities.

It has to be taken into consideration, however, that the compilation of additional information on a sub-group of the population has implications for the determination of the sample size of a household survey. In this case, the sample must be large enough to produce information that has sufficient precision and that suits the needs of the analysis envisaged. One major determinant for this is the degree of substantive detail for the economically-active population (age, sex, status in employment, industry or occupational classification, and so forth.) and for the disabled labour force (for example, type and severity of disability, see section 4). Moreover, the sample size required may be substantially larger in a situation where changes in a small category such as people with disabilities is to be monitored.
Measuring disability would require about the same methodological and technical efforts as measuring employment, if there was one definition of disability, one set of questions that operationalized that definition and one data collection methodology that could be used to collect the information from survey respondents. As it has been stated in section 2, the situation is more difficult than in the measurement of employment, where international standards and definitions for all major aspects are available and employed in the majority of existing labour force surveys and population censuses.

Currently, the term “disability” is interpreted in different ways, a variety of questions to operationalize these different definitions are in use, and numerous collection methodologies are employed. Each choice of definition, questions and collection methodology has implications for the results. Moreover, the measurement of disability is an exercise that is not only bound to a definition but also to the cultural circumstances of a given country. The set of questions used to measure disability in one country may or may not be completely applicable in other countries because they are designed to operationalize a specific definition of disability within a specific context (for example, specific culture, values and norms).

This section will first give a short description of the conceptual framework on disability, which has been developed by the WHO. More practical aspects for the design and compilation of statistics on disability will then be provided on the basis of the work that has been done by the UNSD. Finally, the work of the Washington Group will be described, which has built on this WHO framework and already yielded results for practical use.

A “Disability statistics training manual” (WHO/UNESCAP 2007) has been developed collaboratively by the WHO and the UN Economic and Social Commission for Asia and the Pacific (UNESCAP). This manual contains detailed information on the subject of measuring disability and can be used as a comprehensive source of information on disability statistics. It does not, however, discuss special conditions and needs of measuring the employment situation of people with disabilities, which are the main subject of this paper.
4.1 Conceptual framework of the WHO

The coding of information about health is defined in a family of international classifications, developed by the WHO and endorsed by the World Health Assembly. The ICF (WHO 2001) provides a framework for the description of health and health-related states and forms the basis of all provisions for the measurement of disability. This section gives an overview of the main principles and elements of this classification. Furthermore, this section contains some general facts of the WHO Disability Assessment Schedule II and the World Health Survey, which are closely linked to the ICF.

4.1.1 The International Classification of Functioning, Disability and Health (ICF)

The ICF is the latest revision of the International Classification of Impairments, Disabilities and Handicaps (ICIDH) and was endorsed by the 54th World Health Assembly in May 2001. Instead of the terms ‘impairment’, ‘disability’ and ‘handicap’, this new classification uses more positive expressions to describe health and health-related states.

The classification structures information on human functioning and its restrictions: functioning serves as an umbrella term for all body functions, activities and participation, whereas disability is used to refer to impairments, activity limitations and participation restrictions. The ICF is composed of health and health-related domains, which are described in two basic lists: Body Functions and Structures; and Activities and Participation. A second part of the classification contains components of contextual factors in the form of a list of environmental factors. Personal factors are also part of these contextual factors, but are not classified in the ICF due to the considerable variations in social and cultural background.

Health domains include seeing, hearing, speaking and mental functions, and health-related domains comprise transportation, education and social interactions. The list of environmental factors includes domains such as characteristics of the natural environment, specific support and relationships, special services and systems.
Table 1. Overview of ICF:

<table>
<thead>
<tr>
<th>Components</th>
<th>Part 1: Functioning and Disability</th>
<th>Part 2: Contextual Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domains</strong></td>
<td>Body functions and structures</td>
<td>Activities and participation</td>
</tr>
<tr>
<td>Body functions (tasks, actions)</td>
<td>Environmental factors</td>
<td></td>
</tr>
<tr>
<td>Body structures</td>
<td>Personal factors</td>
<td></td>
</tr>
<tr>
<td><strong>Constructs</strong></td>
<td>Change in body functions (physiological)</td>
<td>Capacity</td>
</tr>
<tr>
<td>Change in body structures (anatomical)</td>
<td>Executing tasks in a standard environment</td>
<td></td>
</tr>
<tr>
<td>Performance Executing tasks in the current environment</td>
<td>Facilitating or hindering impact of features of the physical, social and attitudinal world</td>
<td></td>
</tr>
<tr>
<td><strong>Positive aspect</strong></td>
<td>Functional and structures</td>
<td>Activities Participation</td>
</tr>
<tr>
<td></td>
<td>Facilitators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td><strong>Negative aspect</strong></td>
<td>Impairment</td>
<td>Activity limitation Participation restriction</td>
</tr>
<tr>
<td></td>
<td>Barriers/ hindrances</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

Source: WHO 2001, p. 11.
Components have various domains, which are subdivided in categories, the basic units of classification. The health or health-related state of an individual is denominated by the appropriate category and a qualifier that specifies the degree of the functioning or disability.

The interactions between the parts and components of the ICF are shown in the chart below:

![Diagram of the Interaction of Concepts](image_url)

**Source:** WHO 2001, p. 18.

The functioning of an individual in a specific domain is an interaction between the health condition and contextual factors. “The unit of classification in ICF is categories within health and health-related domains. It is important to note, therefore, that in ICF persons are not the units of classification; that is, ICF does not classify people, but describes the situation of each person within an array of health or health-related domains. Moreover, the description is always made within the context of environmental and personal factors (WHO 2001, p. 8).”
The full version of ICF provides classification at different levels of detail:

- The highest level is represented by 30 chapter headings for body functions, body structures, activities and participation and environmental factors; for example, voice and speech functions, structures related to movement, communication and attitudes.
- The second level of the classification expands these chapters into subheadings at the first branching level; for example, voice functions, articulation functions, fluency and rhythm of speech functions.
- The lowest level contains all basic categories within the classification with their definitions, inclusions and exclusions; for example, production of voice and quality of voice.

The detailed version of the ICF is recommended for use in specialist services, whereas the classification at the second level can be used for surveys. The ICF is recommended as standard classification for the collection of data on functioning and disability. In the view of the WHO, it provides a unified and standard language and framework for the description of health and health-related states. It is employed in many national surveys for disability data collection.

### 4.1.2 WHO health measures

Based on the ICF, the WHO has developed a Disability Assessment Schedule (WHODAS II) (WHO 2000) that provides question batteries on six domains, which correlate directly with the activity and participation classification of ICF:

- understanding and communicating (cognition);
- moving and getting around (mobility);
- self care (hygiene, dressing, eating, staying alone);
- getting along with people (interpersonal interactions);
- life activities (domestic responsibilities, leisure, work);
- participation in society (joining in community activities).
In its primary structure the WHO DAS II provides 36 questions on these six domains in several versions which can be self-administered, interviewer administered, or answered by proxy informant. The measure has been shortened to a 12-item questionnaire and a six-item version is also available. The questionnaire asks respondents to think back over the last 30 days and offers five different categories for answering the questions: none; mild; moderate; severe; extreme/cannot do.

WHODAS II is available in 16 languages and has undergone intensive testing. Its questions form a general health assessment measure for use in health-related surveys and can provide information that is internationally comparable. With view to measuring the employment situation of people with disabilities, however, it lacks a direct question on the functioning of the upper limbs, which can be an essential reason for a person’s difficulties at work. People with such difficulties can only be identified to a certain degree through the questions on self care provided by WHODAS II.

Within its framework of health measurement instruments WHO has developed the World Health Survey (WHO 2002). The main objective of this survey is the “compilation of comprehensive baseline information on the health of populations” and its health module is also based on ICF. In addition to its detailed questions related to health, the survey provides three questions on the employment situation of the respondent by asking for his/her current job, main occupation and main reasons for not working. Information on the employment situation of people with disabilities can therefore be derived from data compiled by this survey. This information cannot depict the situation in a comprehensive way, however, since – as in WHODAS II – questions of the health module do not ask for limitations in upper body functioning. Furthermore, the response categories of the questions on employment do not all comply with the international standards cited in section 3 of this guide.
4.2 UN guidelines and recommendations on disability statistics

In 2001, the UNSD published its “Guidelines and principles for the development of disability statistics” (UN 2001). This publication also refers to the WHO classifications on disability and health (see section 4.1) as a basic framework for the measurement of disability. Since the ICF had not yet been finalized at that time, the UN Guidelines could not fully deal with the implementation of ICF and are, therefore, limited regarding their discussion of appropriate disability measures for censuses and surveys. In the meantime, on the basis of the ICF, the Washington Group has developed a short set of questions suitable for censuses and national surveys; this is discussed in section 4.3 below. Further to these guidelines, the UN principles and recommendations for population and housing censuses (UN 1997) contain a separate section on disability statistics, which has been completely revised and was endorsed by the UN Statistical Commission in March 2007.

4.2.1 Guidelines and principles for the development of disability statistics

The UN Guidelines provide detailed information on general issues of planning and organizing data collection on disability as well as on the different sources. Dissemination and use of disability data are further topics covered, including recommendations for tabulations, reports and publications as well as the discussion of certain indicators of disability. In compiling statistics on the employment situation of people with disabilities, several aspects of this information are particularly relevant.

General issues of planning and organizing

- Users of the statistics should be involved in the planning process at all stages, especially in the determination of the overall goals of the data collection. In general, the group of users should comprise government officials, politicians, researchers and NGOs representing people with disabilities, as well as employers’ and workers’ organizations. The process of planning statistics on the employment situation of people with disabilities should, however, also include specialists from employment offices as well as public and private institutions providing employment to people with disabilities.
The definition of the population with disabilities is a key element and should be based on international standards (see section 4.1), while also taking into account the special cultural situation in a country as well as legislation and special administrative structures that have been established for people with disabilities. Two particular groups of this population (children and elderly persons) may be excluded from the reference population for two reasons. Measuring disability for these groups often creates additional methodological and technical problems. Also, some types of sources, for example, labour force surveys, exclude persons younger than 15 and those older than 65 (or 75) years.

The choice of the respondent is difficult in questions on disability and may often create a dilemma since on one hand a proxy respondent might not be best informed about a disabled member of the household; on the other hand, the disabled person might not be able to respond because of communication difficulties. Furthermore, certain modes of data collection like telephone interviews and self-enumeration may not be adequate tools to collect information on disability. These problems should be taken into account if it is planned to integrate questions on disability into existing surveys (for example, labour force surveys) that use such data collection techniques.

Different data sources on disability

Population census

In many countries, the population census is the only source of information on people with disability (see section 2). Since questions on socio-economic situation are standard elements of census questionnaires, cross-tabulations on the employment situation of people with disabilities can easily be processed when questions on disability are asked. It is therefore desirable to include questions on disability in the census even though adding questions is an issue, since census questionnaires have to avoid overburdening the respondents. One possibility of overcoming this problem, as recommended in the UN Guidelines, is by using two census questionnaires: one short questionnaire containing the main census questions asked to the whole population, (and) a second longer questionnaire asking additional questions on special topics, such as disability, on a sample enumeration basis.
A population census allows detailed cross-tabulations (for example, for small geographical areas) that are not subject to sampling errors and may also provide information on the institutional population. It has to be taken into consideration, however, that a population census – beside its costs – is only done at a low frequency of usually ten years and that this format does not provide much space to explore complex phenomena, such as disability. The UN Statistics Commission has authorized the Washington Group to look for a solution to this problem (see section 4.3) and has also reviewed its principles and recommendations for censuses (see section 4.2.2).

Survey

For the compilation of data on disability by means of a survey, the UN Guidelines propose two possibilities: “a national disability survey or the attachment of a special disability module onto a household survey focused on another specific topic, such as labour force, health and medical care, etc.”. Both methods can be employed to compile information on the employment situation of people with disabilities, but it is important to ensure that results can be used to compare the population with disabilities to the non-disabled population.

When a national disability survey (or health survey containing detailed questions on disability) is used to collect information on the employment situation of people with disability, questions on the work situation have to be incorporated. The survey questionnaire section on employment should be designed in accordance with the current international definitions and classifications (see section 3.4) and it should, as far as enough space is available, at least contain questions on:

- economic activity status (employed, unemployed, inactive);
- status in employment (ICSE-93);
- occupation (ISCO-88);
- economic activity (ISIC-Rev.3);
- education (ISCED-97).

Together with the detailed information on disability, such employment-related questions could enable a disability survey to compile data that
can be cross-tabulated to depict the employment situation of people with disabilities.

In recent years, more and more countries have established labour force surveys, which are processed annually or even on a continuous basis. In many countries, this type of survey has become the most comprehensive source of annual statistics on the labour market. For the assessment of the employment situation of people with disabilities it is, therefore, most appropriate to add a disability module to such a survey.

The 2002 labour force survey round in 25 European countries, for example, contained an additional module with 11 questions on disability (EC 2001) and it is planned to run this module every five years. The module consists of a general question on a longstanding health problem or disability, followed by a list of 15 possible types of this health problem or disability (including “other”). Further questions are related to:

- onset and cause of the problem;
- sheltered employment;
- restrictions in kind and amount of work;
- restrictions in mobility;
- need for and provision of assistance and type of this assistance.

The list of possible health problems or disabilities contains elements from different levels of the ICF and is adapted to the particular needs of the working environment, especially in that it has a category for upper body functioning. But in Germany, four of the questions have been optional because it was felt there that the national labour force survey is already overloaded and could not take on so many additional questions. As this may also be the case in many other countries, a more compact battery of questions would make it easier to add such a module to an existing labour force survey. Section 4.3.2 describes the question set that has been developed by the Washington Group in order to meet this requirement.

**Administrative registers**

Additional information on people with disabilities can be obtained from registers that have been set up by administrations providing services to
people with disabilities. These are data collections on occupational injuries and rehabilitation programmes, registries of the social security system (for example, employment services) and other organizations. These data are generally not collected for statistical reasons and may not be compatible with data compiled through censuses or surveys, especially as regards the coverage (for example, administrative records of social security systems only exist for insured persons), characteristics (records only contain characteristics necessary for the purpose of the administration that collects the data) and the classifications employed. Furthermore, the use of administrative registers can be limited by legal restrictions.

Such data can be useful, though, in filling information gaps of other data collections. If, for example, a labour force survey does not cover the institutional population, some information can be taken from statistics on people with disabilities living in care homes and working in sheltered workshops or other employment initiatives. Even if these figures should not be added to the estimates of the labour force survey, since they come from a different data source, this additional information can be very useful in depicting the employment situation of people with disabilities in a more comprehensive way.

**Dissemination and use of disability data**

The UN Guidelines also provide information for the analysis and publication of disability data that has been collected and give examples of the content of tabulations and reports as well as of the different indicators that can be developed. It is emphasized that analysis should cover the socio-economic profile of people with disabilities and that comparisons between people with and without disabilities are made. Appropriate indicators relevant to the topic of this guide have been discussed in section 1.

**4.2.2 Principles and recommendations for population and housing censuses**

As mentioned above, the *UN principles and recommendations for population and housing censuses* (UN 1997) contain a separate section on disability statistics. This section was completely rewritten in 2005/2006, when the principles and recommendations were revised; it is now based
on the current WHO disability framework as described in section 4.1.1 and on the findings of the Washington Group (see following section 4.3).

Since a census format only provides limited space for questions on disability, it is recommended to focus on four core domains of the ICF: walking, seeing, hearing and cognition. Two further domains - self care and communication - should be added, if possible (see paragraph 2.343 of the Principles and recommendations).

Upper body functioning is mentioned as a further domain that could be included in the set of questions asked in a census and the proposed tabulations (see annex 1 of the principles and guidelines) are shown in table P8.7 where the variables ‘type of disability’ and ‘economic activity status’ are cross-classified and disaggregated by age and sex. This table depicts the general employment situation of people with and without disabilities in a country and thus allows the development of some indicators for the assessment of equalisation of opportunities. For this table, however, the question on upper body functioning is more likely to produce suitable information for the labour market rather than the question on self-care.

Special attention should be paid to the design of the census questions (paragraph 2.364 of the Recommendations). In particular:

- one separate question should be included for each domain;
- clear, unambiguous and simple language should be used;
- no negative terms should be used (for example, ‘disability’);
- proxy respondent should be provided for, if a family member is incapacitated;
- each family member should be accounted for individually, and no blanket question should be used;
- scaled response categories should be employed.

Since the limited format of a census does not allow for questions on all domains, the resulting information cannot capture all persons with limitations in basic activity functioning. Nevertheless, questions on the proposed domains can yield information that represents a large proportion of
the disabled population across a country. A comprehensive description of disability can only be achieved by means of a large national sample survey or administrative data.

4.3 The work of the Washington Group

The Washington Group⁵ was established by the UN in 2001 to promote and coordinate international cooperation in the area of health statistics by focusing on disability measures suitable for censuses and national surveys. City Groups are informal groups of experts primarily from national statistical agencies; the name is determined by the city where the group first met.

At its first meeting in February, 2002, the Washington Group clarified the main objectives of its work as:

(a) development of a short set or sets of disability measures, suitable for censuses and sample based national surveys;
(b) recommendation of one or more extended sets of survey items;
(c) discussion and clarification of methodological issues;
(d) use of the ICF as a framework for the development of disability measures.

4.3.1 Basic principles and recommendations

The Group agreed that it is important and possible to craft internationally comparable disability measures that can be used in censuses (UN 2003). In later meetings, it was acknowledged that the need for internationally comparable measures, appropriate for use in census would probably imply that it would not be possible to capture the whole disabled population. The activity dimension of ICF (see section 4.1) should be an initial focus for internationally comparable indicators.

⁵ A City Group is an informal, temporary organizational format that allows representatives from national statistical agencies to come together to address selected problems in statistical methods. City Groups are established by the UN Statistical Commission and are named after the location of the first meeting. See Washington Group website http://www.cdc.gov/nchs/citygroup.htm
The selection (see UN 2004) of a purpose for the general disability measure was based on two criteria:

- Relevance with respect to policy: is the purpose a central theme across countries?
- Feasibility: is it possible to collect the information, using a small set of questions suitable for censuses and national surveys.

Three major classes of purpose for measuring the disabled population were identified:

- **Provision of services**: Identification of persons who need rehabilitation or other services (for example, the provision of tools and aids) to change their life.
- **Level of functioning in the population**: Identification of persons with a reduced level of functioning in the community. This measurement encompasses the ICF domains of body functions and structures while focusing more on activities and participation (see section 4.1).
- **Equalization of opportunities**: Identification of persons who are at a greater risk than the general population of experiencing restrictions in performing specific tasks or participating in activities.

The identification of persons needing special services or assistance is very difficult using only a small set of questions, which has to be the case in a census format or in those of national household surveys. Also, monitoring the level of functioning is a complicated process that would require more than a few questions. Persons with impairments may not experience limitations in labour market participation if they have successfully adapted to the requirements of their workplace (for example, with the help of technical aids and/or adapted equipment at work). It would, therefore, not be possible to distinguish them from other persons without impairments unless additional questions about medical aids or special workplace equipment could be asked.

Thus, given that the census format could only include a few questions, the group opted for a short disability measure, based only on assessment...
of equalization of opportunities. The decision was based on the fact that
the equalization of opportunities of people with disabilities could be
measured using a small set of questions.

In the context of the selected purpose (assessment of equalization of
opportunities) the Washington Group focused on six functional domains
as the basis of the disability measure, designating the first four domains
as core domains:

- walking;
- seeing;
- hearing;
- cognition;
- self-care;
- communication.

It should be mentioned at this point that the direct measurement of
upper limb functioning is necessary for the compilation of statistics on
the employment situation of people with disabilities. Questions on upper
body functions are not easily formulated, however. Thus it was argued
that parts of this subgroup of the disabled population could also be cap-
tured by a question on self-care. But nevertheless, in the context of
labour, it may be useful to replace the self-care question by a specific
question on the upper limb functioning. This point will be discussed in
detail in section 4.3.2.

As already mentioned, the Washington Group judged the ability of a ques-
tion set to produce cross-nationally comparable data to be of higher prior-
ity than the ability to capture every person with a disability in a
population. It was also felt that it would not be possible to capture the
whole population given the small number of questions that would be
included in censuses. The focus then was on developing a measure that
would provide comparable information on persons with similar types and
levels of limitations in basic activities. More comprehensive statistics on
people with disabilities can be compiled from large national surveys or
administrative data.
Given the limitations of a census format, the questions are expected to provide information on:

- the majority, but not all disabled persons with limitations in basic activities;
- the most commonly occurring disability domains in any country;
- persons with similar problems across countries.

On the basis of this information, levels of participation in activities can be compared for people with and without disabilities, whenever data on participation are compiled through the same source. Participation in employment activities can then be determined by those indicators, which have been described in section 1.2. It should be noted that absolute figures could underestimate the subpopulation of people with disabilities, since this short set of questions does not capture everyone in this group. This should not, however, significantly influence the comparability of indicators that are developed from these data.

4.3.2 Questions on disability

The way questions on disability are asked can have a massive impact on the statistics obtained from censuses and surveys. The following example highlights this:

An independent research organization from Norway (SINTEF Group6) analyzed censuses and surveys in the framework of a research project on disability in Zambia. Comparisons of the censuses in 1990 and 2000 and the Living Conditions Survey in 2006 yielded the following results for the prevalence rate of disability in this country:

- Census questions 1990 asked whether someone is blind, deaf, dumb, and so forth (the “what’s wrong with you?” approach): the resulting prevalence rate was 0.9 per cent.

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6 see: http://www.sintef.no/default_490.aspx
• Census questions 2000 asked whether “a person is limited in the kind or amount of activities that he or she can do because of ongoing difficulties due to long term physical, mental or health problems”: the resulting prevalence rate was 2.7 per cent.

• Questions of the 2006 Living Conditions Survey asked people whether they had “difficulties in seeing, hearing, walking, remembering, self-care, communication” and offered five categories for the answer (no, slight, moderate, severe difficulty, unable to do): the resulting prevalence rate was 13.3 per cent.

The questions used in the 2006 Living Conditions Survey were developed on the basis of the Washington Group’s short disability measure, which contains a question for each of the six domains described in section 4.3.1, using the principles and recommendations formulated by the Group. The Group’s questions are as follows:

**Washington Group short measurement set on disability**

**Introductory phrase:**
The next questions ask about difficulties you may have doing certain activities because of a HEALTH PROBLEM.

**Core Questions:**

1. Do you have difficulty seeing, even if wearing glasses?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

2. Do you have difficulty hearing, even if using a hearing aid?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all
Measuring disability

3. Do you have difficulty walking or climbing steps?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

4. Do you have difficulty remembering or concentrating?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

Additional questions:
5. Do you have difficulty (with self-care such as) washing all over or dressing?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

6. Using your usual (customary) language, do you have difficulty communicating, for example understanding others or others understanding you?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all.
Standardized pre-testing of the Washington Group question set has been completed in 17 countries, primarily in Africa, Asia and South America. A standardized cognitive testing protocol was developed to determine if the short set of questions was capturing information as intended and in a consistent way across countries. The cognitive tests also included more detailed questions on the same health domain. The main results of the cognitive testing show that the Washington Group’s short set of questions can produce good results for the domains. They were in general understood easily by the test persons and largely capture the target population.

Field test results were somewhat more ambiguous and will need further analysis. The test compared the results of the six questions to a longer set of questions taken from WHO instruments (World Health Survey, WHODAS II) and yielded quite satisfactory results in some countries. The Living Conditions Survey 2006 in Zambia was used as such a field test. A second part of its questionnaire was designed as a detailed disability survey and additional questions were asked on 44 activities out of nine health domains of the ICF. Results have shown that the six questions of the main questionnaire (identical to the Washington Group question set) captured more or less the same population subgroup as this detailed question set.

Test results in other countries produced some contradictory results. Initial analyses of field tests in the UNESCAP region suggested that the Washington Group questions were less sensitive than the more detailed WHO questions. This analysis assumed that the WHO questions represented a gold standard, that is, the population identified using these questions is the ‘true’ population; but no such gold standard exists in the area of disability statistics. In addition, the analyses are complicated due to the different number of response categories used in the Washington Group and WHO questions. This makes the results very sensitive to the cut-points chosen. The more detailed functioning questions were included in the cognitive and field tests to increase understanding of the operational characteristics of the Washington Group questions and analyses of all test results is continuing. It is important to better understand which subgroups are missed by the Washington Group questions so that this information can be provided to data users and be used to improve the questions in the future.
Measuring disability

The Washington Group endorsed the use of the questions of the short set as they have been tested with some minor changes:

• The first two core domains (seeing and hearing) measure functioning with the use of assistive technology. This decision was made because of the widespread and successful use of glasses to correct vision impairments. If persons using glasses were included in the disabled population, that population would not only be very large but also extremely heterogeneous and not of policy interest. The same decision concerning the use of assistive technology was made for hearing although the situation in this case is quite different. Testing showed that the phrases ‘even when wearing glasses’ and ‘even when wearing hearing aids’ caused some difficulty. Since much of this difficulty was related to translation, the Washington Group recommendation is for countries to translate the phrase in a way that is culturally appropriate and that will capture the intent of the instruction, rather than to attempt a literal translation.

• Question 6 (communication) was reformulated in order to be shorter and easier to understand.

As already outlined above, the question on self care may not capture all people with limitations in upper body functioning, yet information on this subgroup is important in order to obtain a comprehensive picture of the employment situation of people with disabilities. At the request of the ILO, the Washington Group asked its working group for the short disability measure to develop a separate question on this subject. This question is optional and should replace the self-care question, if special emphasis is put on the collection of employment-related information. An example of an upper body function question is:

5a. Do you have difficulty using your arms, hands and fingers (lifting, holding, gripping)?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all.
It should be noted that this question has not yet undergone testing and the Washington Group is working on refining a question to be presented at its seventh annual meeting in September 2007. Appropriate tests should, therefore, be organised at national level if it is planned to make use of this question in a survey. The question has been developed for this special requirement; it will not be part of the short disability measure the Washington Group will recommend for use in population censuses.

The Washington Group discussed whether or not the introduction to the question set should refer to the duration of the health problem or disability in order to avoid the inclusion of impairments that would heal (for example, a broken arm/leg). Concern was raised that such a fixed duration might confuse respondents and would not necessarily result in higher quality data. It was also argued that people with a temporary impairment would only have ‘some’ difficulties in only one domain and would, therefore, not be identified as disabled. Following the discussions, the Group recommended having no fixed clause on the duration of impairments.

Further discussions related to the fact that the size of population censuses already has reached a volume where additional questions can hardly be added; this also applies to many national sample surveys. It is, therefore, very difficult to add disability as a new topic if this would require that six further questions be added to the questionnaire. Nevertheless, the Washington Group clearly stipulated that disability as a new topic should not be included if only one question would be agreed to. Even two or three questions would not be enough to collect appropriate information on the disabled population and to provide reliable information as a basis for the design of specialized programmes or the development of legislation. A census questionnaire should at least contain the questions on the four core domains; whenever possible, questions on the two additional domains should be added.
4.4 Conclusions

In planning to gather statistical data on the employment situation of the particular subgroup of disabled persons, special attention should be paid to the points mentioned above, and in particular the following:

• questionnaires on disability should at least contain questions on the six domains selected by the Washington Group, with the question on self care being replaced, if possible, by a question on upper body functioning,

• whatever format is chosen for the questionnaire, it should contain at least one question that allows the identification of people with limitations in the upper body functioning; in certain cases it may be necessary to derive this information from the self care question;

• special problems related to the definition of disability within the age-groups of children and elderly people can be disregarded for the purposes of collecting employment data;

• questions on difficulties in seeing and hearing should refer to the use of assistive technology.
In principle, there are two different ways of measuring disability in censuses and nationwide surveys. Questionnaires used in health surveys or special disability surveys provide enough space for detailed questions on the issue of health-related problems and/or disability and therefore facilitate an exact analysis of this complex phenomenon as well as a clear distinction between the disabled and non-disabled population. Examples of such questionnaires can be found in the World health survey (WHO 2002) and the WHODAS (WHO 2000). Questionnaires used in population censuses and nationwide surveys on other topics (for example, labour force) can provide space for, at most, only few questions on disability. These formats can provide information on the main characteristics of disability and for certain health domains might not capture the disabled population precisely.

First of all, the selection of a source depends on whether such appropriate data sources already exist in a country or, if not, what resources are available to set up such sources. Another point is that changing or extending existing censuses or nationwide surveys requires significant efforts and may often end only in a compromise.

- A population census is the most common type of data source and in developing countries it very often is the only one. The measurement of employment is generally available and very often complies with the international standards and definitions; disability is not always a topic in censuses, however, and there are currently numerous different ways of measuring it. The short set of questions developed by the Washington Group can help to overcome these problems since it is based on international standards and consists of only a few questions. For the analysis of the employment situation of people with disabilities it would, however, be necessary to derive information on upper body functioning from the self care question. This would result in a certain inaccuracy and the analysis could be incomplete if only the four core questions of the set were asked.
Final remarks

- As already outlined, a labour force survey can be regarded as the best source of information on the employment situation of people with disabilities. This format provides comprehensive information on the economically-active population, employment and unemployment and could enable the development of suitable indicators, if an appropriate module on disability were attached to such a survey. This module on disability should be based on the modified question set of the Washington Group, with the question on self care replaced by a question on upper body functioning.

- Finally, health or special disability surveys can also be employed to compile information that allows analysis of the employment situation of people with disabilities. The questionnaires of such surveys provide detailed questions on health and disability which are often based on the framework of the ICF (for example, World health survey and WHODAS II). Given the topic of this guide, questions on upper body functioning should also be asked. Data on disability could then be cross-classified with data compiled through a suitable set of questions on employment, which should be designed on the basis of existing international standards and definitions.
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Activity status
Three mutually exclusive and exhaustive categories: employed, unemployed and not in the labour force.

Actual hours worked
Hours actually worked during a normal work period including overtime and times spent at the workplace for maintenance, repair, stand-by, and so forth.

Administrative registers
Data collections processed by public administrations in order to fulfil legal obligations such as payment of benefits, registration of population subgroups, and so forth.

Availability criterion
Given a work opportunity, an unemployed person should be able and ready to take up this work.

Civilian population
Total population except armed forces.

Classifications
Schemes that use a standardized notation to distribute things into classes or categories of the same type.

Coverage of data sources
Extent to which a data source compiles information on the population of a country. Whereas censuses normally cover the whole population, other sources leave out certain population subgroups or do not comprise all regions of a country.

Currently active population
All persons of either sex involved in the production of goods and services measured in relation to a short reference period (one week or one day), also called “the labour force”.

Decent work
Productive work in which rights are protected, which generates an adequate income, with adequate social protection.

Disability
Umbrella term for impairments, activity limitations or participation restrictions.
**Discouraged workers**
Persons who want a job and are currently available for work but who have given up any active search for work because they believe that they cannot find it.

**Economic activity**
Any activity spent on the production of goods and services falling within the production boundary of the UN SNA. It covers all market production and certain types of non-market production, including production and processing of primary products for own consumption, own-account construction and other production of fixed assets for own use. It excludes activities such as unpaid domestic activities and volunteer community services.

**Economically-active population**
All persons who are economically active, including those who are available to become economically active.

**Employed**
All persons above a specific age who during the reference period performed some work ("at work") for wage or salary or had a formal job attachment ("with a job but not at work"). The notion of "some work" may be interpreted as work for at least one hour. The definition also comprises self-employed persons "at work" or "with an enterprise but not at work".

**Employee**
Person who works for a public or private employer and receives remuneration in wages, salary commission, tips, piece-rates or pay in kind.

**Employer**
Person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires one or more employees.

**Employment to population ratio**
Proportion of the working-age population that is employed.

**Environmental factors**
External influences on functioning and disability, which have a facilitating or hindering impact on features of the physical, social, and attitudinal world.

**Establishment survey**
Data collection exercise that uses establishments (enterprises) as measurement
unit. These surveys can be more specifically focussed, hence more precise and economical, but at the same time they can be more limited in coverage and content. Often they are confined to large establishments employing more than a certain number of persons.

**Filter question**
Central question of a survey questionnaire which ramifies into different sections.

**Functioning**
Umbrella term encompassing all body functions, activities and participation.

**Health (and health-related) domains**
Set of related physiological functions, anatomical structures, tasks or areas of life. Domains make up the different sections and blocks within each component of the ICF.

**Household survey**
Sample survey that uses households as measurement unit and allows for the joint measurement of the employed, unemployed and not economically active.

**ICF**
International Classification of Functioning, Disability and Health.

**ICIDH**
International Classification of Impairments, Disabilities and Handicaps, predecessor of ICF.

**Institutional population**
Persons who are not members of ordinary households, living in military installations, correctional and penal institutions, dormitories of schools, religious institutions, hospitals, and so forth.

**ICSE**
International Classification of Status in Employment.

**ISCED**
International Standard Classification of Education.

**ISCO**
International Standard Classification of Occupations.
ISIC
International Standard Industrial Classification.

Labour force participation rate
Proportion of the working-age population that is economically active.

One-hour criterion
Fundamental in defining unemployment as a situation of total lack of work.

Own account worker
Person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires no employees.

Periodicity of data collections
Sufficiently frequent (fixed) intervals at which data collection exercises are processed.

Population census
Enumeration of the whole population obtaining brief but complete information on basic characteristics.

Production for own and household consumption
Can be regarded as economic activity as far as it comprises primary products and commodities as well as fixed assets for own use.

Reference period
Short time span to which survey questions are related.

“Seeking work” criterion
Unemployed persons have to take active steps in a recent period to obtain paid employment or self-employment in the sense of an economic activity.

Self-employed
All persons above a specific age who during the reference period performed some work (“at work”) for profit or family gain, in cash or in kind.

Statistical indicators
Quantitative data that provide evidence about the quality or standard of a system (for example, labour market). Unlike raw statistics, indicators can assist with making comparisons between characteristics and states of different population sub-groups.
Unemployed
All persons above a specific age who during the reference period were without work, currently available for work and seeking work.

Unemployment rate
Proportion of the working-age population that is unemployed.

Unpaid family worker
Person who works without pay in an economic enterprise operated by a related person living in the same household.

Usual hours worked
Hours worked during a typical week or day (rather than a reference period).

Usually active population
All persons of either sex involved in the production of goods and services measured in relation to a long reference period such as a year.

Washington Group
Focuses on the development of disability measures suitable for censuses and national surveys. City Groups are established by the UN Statistical Commission and take their name from the city of their first meeting (Washington, Feb. 2002).

Without work criterion
Unemployed persons who were not in paid employment or self-employment during the reference period.
The short question set of the Washington Group on Disability Statistics, its rationale and context

A. The short question set of the Washington Group

B. Introductory phrase
   The next questions ask about difficulties you may have doing certain activities because of a HEALTH PROBLEM.

Core questions
1. Do you have difficulty seeing, even if wearing glasses?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

2. Do you have difficulty hearing, even if using a hearing aid?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

3. Do you have difficulty walking or climbing steps?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

4. Do you have difficulty remembering or concentrating?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all
Additional questions:

5. Do you have difficulty (with self-care such as) washing all over or dressing?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

6. Because of a physical, mental or emotional health condition, do you have difficulty communicating (for example, understanding others or others understanding you)?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all

For use in employment-related data collection formats, it is recommended by the ILO to replace question 5 (self care) by the following question on upper body functioning:

5a. Do you have difficulty using your arms, hands and fingers (lifting, holding, gripping)?
   a. No – no difficulty
   b. Yes – some difficulty
   c. Yes – a lot of difficulty
   d. Cannot do at all
B. Statement of rationale for the short question set

1. “Disability” is an umbrella term that generally refers to the negative aspects of functioning, such as impairments, activity limitations or participation restrictions. While it is important to collect information on all aspects of the disablement process, it is not possible to do so in censuses. However, important information on selected aspects of disability can be obtained from censuses.

2. In their ongoing deliberations, the Washington Group has agreed that measurement of disability is associated with a variety of purposes, which relate to different dimensions of disability or different conceptual components of disability models. A fundamental agreement of the Group was the need for a clear link between the purpose of measurement and the operationalization of indicators of disability. Equalization of opportunities was agreed upon and selected as the purpose for the development of an internationally comparable short set of questions. This purpose was chosen because:

   (a) It was relevant (of high importance across countries with respect to policy);

   (b) It was feasible (it is possible to collect the proposed information using an internationally comparable short set of questions on censuses or surveys).

3. In order to address that purpose, questions were developed to identify persons who are at greater risk than the general population of experiencing restrictions in performing tasks (such as activities of daily living) or participating in roles (such as working). In particular, the goal was to gather information about limitations in basic activity functioning (i.e. functional activities such as walking, remembering, seeing, hearing). The “at risk” population captured by the short set of questions will include persons with limitations in basic activities who may or may not also experience limitations in more complex activities and/or restrictions in participation depending in some instances on whether or not they use assistive devices, have a supportive environment or have plentiful resources.
4. The questions were designed to provide comparable data cross-nationally for populations living in a great variety of cultures with varying economic resources. The objective was to identify persons with similar types and levels of limitation in basic activity functioning regardless of nationality or culture. It was not our purpose to identify every person with a disability within every community.

5. The census format requires that a limited number of questions be devoted to any one statistic that needs to be produced. For reasons of simplicity, brevity and comparability, the choice was made to identify limitations in domains of basic activity functioning that are found universally, are most closely associated with social exclusion and occur most frequently. The information that results from the use of these questions is expected:

(a) to represent the majority of but not all persons with limitation in basic activity functioning in any one nation;
(b) to represent the most commonly occurring limitations in basic activity functioning within any country;
(c) to capture persons with similar problems across countries.

6. The proposed questions identify the population with functional limitations that have the potential to limit independent participation in society. The intended use of these data is to compare levels of participation in employment, education and family life for those with disability versus those without disability and to assess whether persons with disability have achieved social inclusion. In addition, the data can be used to monitor prevalence trends for persons with limitations in the specific basic activity domains.

7. The Washington Group recognizes that the short set of questions for censuses may not meet all the needs for disability statistics, nor will it replicate an evaluation of the population across a wider range of disability domains. A more comprehensive evaluation would be possible in other forms of data collection or in administrative data. The population captured by the short set will not represent the total population with limitations, nor will it necessarily represent the “true”
population with disability, which would require measuring limitation in all domains and a much more extensive set of questions.

C. **Context of the work of the Washington Group**

8. The finalization of the short question set will facilitate the inclusion of the questions in the 2010 census round. The questions were developed according to the Fundamental Principles of Official Statistics (UN 1994, ch. V, para. 59) and are consistent with the ICF. Most importantly, however, the endorsed questions support the Convention of the Rights of Persons with Disabilities recently adopted by the General Assembly of the UN (UN 2006). The short set addresses equalization of opportunities for persons with disabilities, which is one of the general principles listed in article 3 (General principles) and the focus of article 5 (Equality and non-discrimination) of the Convention. It is also particularly relevant to the collection of data for policy purposes outlined in article 31 (Statistics and data collection) and will facilitate the monitoring of participation in cultural life, leisure, recreation, work and employment that is called for in articles 27 (Work and employment) and 30 (Participation in cultural life, recreation, leisure and sport) .
### Tables for the tabulation of Indicators

#### Table 1  Labour force participation rate

<table>
<thead>
<tr>
<th>Age (in years)</th>
<th>People without disabilities</th>
<th>People with disabilities</th>
<th>Difference in per cent</th>
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#### Table 2  Employment to population ratio

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