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*Draft Gender Statistics Manual :
Outline and selected sections
(Revision 23 September 2011)*

Prepared by

United Nations Statistics Division

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Outline and selected sections
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OUTLINE

Introduction

Purpose of the manual (target group: NSO statisticians); organization of the manual

Chapter 1 – Overview of gender statistics

- 1.1 What are gender statistics
- 1.2 Importance of gender statistics
- 1.3 Mainstreaming gender in national statistics

Chapter 2 – From gender issues to gender statistics: identifying data gaps

Introduction:

- What is achieved during this stage of gender mainstreaming: a) relevant gender issues are considered and needed statistics are identified; b) an assessment of statistics already collected in regular programmes is done; c) decision on better dissemination of statistics, improvement in the methodology of existing data collections, and/or new data collections. The end result: main directions in development of gender statistics within the national statistical system.
- Organization of the chapter by topic. Within each topic: relevant gender issues; statistics needed; sources of data; conceptual and measurement issues.

Topics covered: education; work; poverty; power and decision-making; population, household and family; health; violence against women; environment; migration, refugees and displaced people; human trafficking.

Chapter 3 – Integrating a gender perspective into data collection

Introduction

- Why this stage of gender mainstreaming is important and what it entails.
- Organization of the chapter by data collections.

Topics covered: population and housing census; labour force survey; demographic and health surveys; agricultural censuses and surveys; household income and expenditure

surveys; time use surveys; violence against women surveys; establishment surveys; administrative sources.

Chapter 4 – Delivering gender statistics

Introduction

- Why this stage of gender mainstreaming is important (need to improve the analysis and use of statistics). What it involves.
- Types of dissemination products.

4.1 Data processing and analysis

- General information on proportions and shares, rates, ratios, measures of central tendency with some examples of gender indicators (from list developed by IAEG + possibility to include the whole minimal list of indicators).
- Calculating gender gaps
- Breakdown by various characteristics. Special population sub-groups discussed.

4.2 Data presentation

- Tables and charts with a simple clear message. Examples from World's Women and some national statistical publications – both “women and men” type of publication and regular statistical publications (census or survey reports).

4.3 Use of gender-sensitive indicators in designing/monitoring policies or measures

- Criteria in selection of gender-sensitive indicators: a) policy goals; and b) quality standards in statistics.
- The example of gender-sensitive indicators used to monitor MDGs.
- Use of gender-sensitive indicators in national policy documents - PRSPs or other national policy documents on poverty/education/work/health.
- Use of qualitative indicators (OECD indicators on property rights, for example; but it could be gender stereotypes in the school books).
- Use of indicators on budgeting for gender.

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Chapter 1 Overview of gender statistics

[Some points on gender statistics and gender mainstreaming in national statistics – as preliminary info for what will follow in chapters 2 and 3]

Gender statistics are not reduced to data disaggregated by sex. They “should adequately reflect problems, issues and questions related to women and men in society” (Beijing Platform for Action; para 206(a)). Although very important in obtaining gender statistics, disaggregation of statistics by sex is only one of the means to integrate a gender perspective in statistics. Several factors are particularly important. First, the concepts, definitions and measurement used should allow an adequate reflection of women’s and men’s status, gender roles and relations in society. Second, data collection tools should take into account stereotypes and social and cultural factors that might induce gender bias into data. Third, analyses and presentation of data should reveal meaningful differences and similarities between women and men.

Finally, another factor, essential in linking gender statistics with policy making, needs to be considered. It is recommended that the production of gender statistics cover underlying causes and consequences in the framework for analysis. Once gender differences and inequalities are documented, it may be useful to attempt a deeper analysis that looks at causes and implications of these differences and inequalities. At the final stage of data production, it should be ensured that the results of the analysis are presented with clear messages that highlight gender-based causes and consequences and their policy implications.

Gender mainstreaming in national statistics means that all these factors are systematically taken into account in the production of all official statistics. It entails that gender issues relevant for a particular society and the statistics needed to address them are identified and data gaps in terms of availability and quality are detected based on an assessment of existing data sources. [These stages of gender mainstreaming are covered in chapter 2]. Following the outcome of the assessment, the development of gender statistics may involve the improvement of methodologies of existing data collections; new data collections; and/or better presentation and dissemination. [These stages of gender mainstreaming are covered in chapters 3 and 4]. As a result of gender mainstreaming, statistics not only become more adequate in reflecting gender concerns but they also become more complete, of better quality, and benefitting all users.

References

Hedman, Birgitta, Francesca Perucci and Pehr Sundström, 1996. *Engendering Statistics. A Tool for Change*. Statistics Sweden.

United Nations, 1995. *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995*.

United Nations, 2002. *Gender mainstreaming. An Overview*. DESA, Office of the Special Adviser on Gender Issues, New York.

United Nations, 2005. *The World's Women 2005. Progress in Statistics*.

Chapter 2 From gender issues to gender statistics: identifying data gaps

Introduction

Some gender statistics are produced by all national statistical systems. Some data are already collected for women and men, but often only part of them are processed and disseminated, and only part of them are adequate to reflect gender issues in society. Furthermore, some gender issues considered important by policy makers or planners in a particular country may not be addressed at all by the data currently produced by the national statistical system. As part of the overall gender mainstreaming in national statistics, the gap between the statistics needed to address nationally-defined gender issues and statistics currently produced should be identified and used as a basis for further development in gender statistics.

Setting the priorities in terms of gender issues and gender statistics needed depends on current policy goals and plans and current standards in statistical concepts and measurement methods. With regard to gender issues that need to be taken into account, there are models provided at global or regional level. For example, the Beijing Platform for Action identified several critical areas of concern: poverty, education and training, health, violence against women, armed conflict, economy, power and decision-making, human rights of women, media, environment, and the girl child. At regional level, priority areas for actions on gender equality may also be outlined (see for example the European Union's roadmap on gender equality) (UNECE and World Bank Institute, 2010).

Although most areas of concern outlined in the Beijing Platform for Action are rather common for all the countries in the world, societies may have specific priorities in addressing gender issues. It is important that these priorities are made clear during consultations between statisticians and the main users of statistics. The national priorities in gender issues along with the desired depth of analysis become the basis of an inventory of needed gender statistics in a particular country. It is important to decide whether causes or consequences of issues in question are among the priorities because these aspects will influence the choice of statistics and methods of data collection.

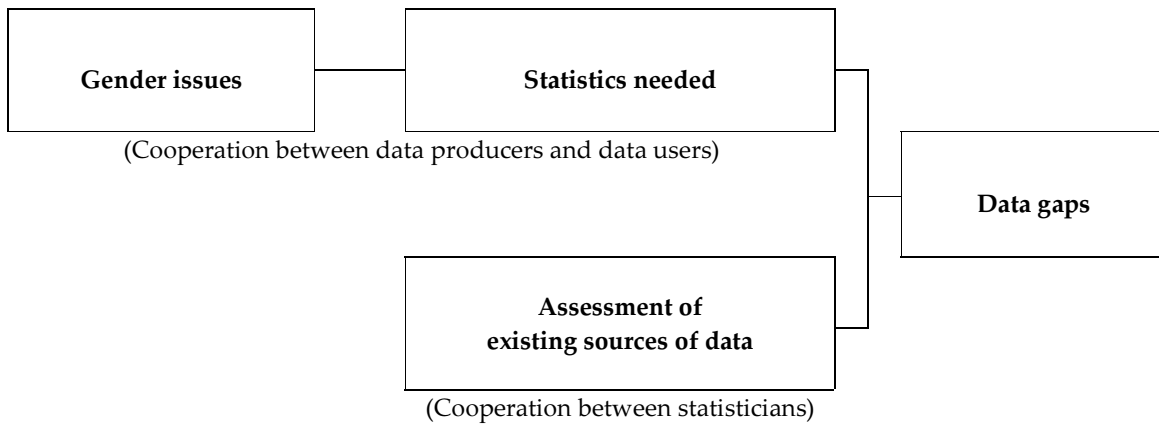
After the gender issues and the needed statistics have been identified, it is the task of the statistical producers to assess existing sources in terms of data availability and quality, including the use of concepts, definitions, and classifications that would allow an adequate reflection of women's and men's status in a particular area. At this stage, consultations between statisticians involved in regular data production and gender statistics specialists are crucial. Gender statistics come from different statistical fields, such as labour force statistics, demographic statistics, social statistics, education or health statistics. Those fields as well as

specific stages of data collection, processing and dissemination are the responsibility of different offices or units within the statistical system.

Based on the assessment of existing sources of data and the inventory of needed gender statistics set at the earlier stage, the statistical producers can identify data gaps and decide whether (a) existing data need to be better presented and disseminated; (b) improvement in the methodology of existing data collections is necessary; or (c) new data collection is needed – either a completely new instrument or additions to existing data collections. Priorities in developing gender statistics on those three dimensions should be set based on available human and economic resources.

Following the steps described above, this chapter presents the main elements taken into account in identifying gender statistics gaps related to several subject-matter topics. For this purpose, a list of topics was selected having as starting point the main areas of concern outlined in the 1995 Beijing Platform for Action. For each topic there are shown: relevant gender issues; statistics needed to address them; main data sources; and main conceptual and measurement issues that may affect the adequacy of gender statistics.

Chart 2. 1 From gender issues to gender statistics: identifying data gaps



Education

Gender issues

Girls and boys do not always have equal access to basic education. Gender gaps in primary and secondary education have narrowed in most regions of the world. However, some countries from the less developed regions have not yet achieved gender parity at the primary and secondary levels of education. At the secondary level, the gender disparity is wider and it occurs in more countries. While the participation rates in primary or secondary education are in general lower for girls than for boys, there are a number of countries where the participation rates are lower for boys than for girls. The gender disparity in the disadvantage of boys may be the combined result of increasing participation rates for girls and declining participation rates for boys. (UNESCO Institute for Statistics, 2010a; United Nations, 2010)

Poverty may keep more girls than boys out of school. Children from poor households are more likely to be out of school than their peers in the rest of the population. When the burden of schooling rests with the family and not the government, poor families may consider that their limited resources are better invested in sons' education than daughters' education. Thus, poor girls may be less likely to be in school than poor boys, especially at the post-compulsory levels of education.

Different types of work affect girls' and boys' school attendance. Long hours of work affect children's school attendance, especially girls' (United Nations, 2010). Both girls and boys may be engaged in work activities, but boys are more likely to be employed, while girls are more likely to do unpaid housework. The total burden of work is generally higher for girls, especially older girls. There are countries where, however, boys have higher rates of child labour in rural areas and in poor households and therefore boys' school attendance may be lower than girls' (UNESCO Institute for Statistics, 2010a).

Teaching and learning environment itself may reinforce gender roles and exacerbate gender stereotypes. Textbooks and other teaching materials may contain gender-based biases (UNESCO Institute for Statistics, 2010a). In some textbooks, girls and women are portrayed stereotypically or in a demeaning manner, and the roles and contributions by women in society are misrepresented. In addition, female gender roles in the secondary and higher levels of education become scarcer as female teachers are fewer. Other factors such as lack of separate toilets for girls and boys, potential threats and physical and sexual abuse by other students or teachers and lack of adequate transportation may also keep girls out of school.

In many countries more women than men may pursue higher education. The number of female students in tertiary institutions has been growing and in many regions of the world women enrolment rates in tertiary education have surpassed male enrolment rates. This progress has happened mostly in countries from the developed regions, although lately it has been

observed in countries from the less developed regions as well. Still, there are countries in the less developed regions where women continue to be disadvantaged.

Women and men may have different opportunities on the labour market due to inequality in education. In many countries young women are less likely than young men to enrol in vocational education and thus they are less likely to acquire the practical skills, know-how and understanding necessary for employment in particular occupations or trades. When enrolled in tertiary education, female students are more likely to be trained in the fields of education or social sciences, and less likely in the fields of science, engineering or manufacturing (United Nations, 2010). Gender inequality in education leads to gender inequality in opportunities to employment, certain occupations, earnings, career and positions of power and decision-making. Gender disparities in access to information and knowledge may continue in the adult life, in areas such as access to internet, training on the job, or access to agricultural information and technology.

Women's lack of education has significant impact on their family well-being. Women's education is an important factor in marriage and fertility patterns. Low level of education for women is often associated with early marriage and high fertility. It may also be associated with poor health status for the women and other members of their household, particularly the health of their children. Immunization, child nutrition and child survival may be significantly improved when the mother has a higher level of education.

Statistics needed and sources of data

Table 2.1 shows the statistics needed for each of the gender issues presented above, along with the disaggregation required (sex and other characteristics), and the corresponding sources of data. The gender statistics in education refer to school enrolment and repetition; number of teachers; school attendance; literacy and educational attainment; researchers; access to internet and computers; access to adult education and training. They are collected mainly through (a) school administrative records gathered annually by the school systems and reported to ministries of education; (b) household surveys; and (c) population censuses.

School administrative records are the source of data for gender statistics on school enrolment, new entrants, repeaters, graduates of tertiary education, and number of teachers. Other information available through the school administrative sources may also be relevant from a gender point of view. This information may refer, for example, to the overall education system, compulsory education, or basic-services available to school facilities (including the availability of separate toilets for girls and boys).

Household surveys can be used to collect data on school attendance, literacy and educational attainment. Among the international surveys regularly collecting such data are Demographic and Health Survey (DHS), Multiple Indicator Cluster Survey (MICS), Core Welfare Indicators Questionnaires (CWIQ), and Living Standards Measurement Study (LSMS). Some labour force surveys may also collect education data. For example, the

European Union Labour Force Survey is an important source of data on educational attainment in the European countries.

Household surveys are particularly important because they can collect additional data on individual and household characteristics that can be used to explain gender differences in education. They can accommodate detailed questions on topics such as wealth status of child's household, education of parents, reasons for not attending school or dropping out, involvement in unpaid household work, or expenditure on education.

Some surveys may be specialized on particular education-related topics. For example, there are dedicated literacy surveys that can measure in-depth basic reading and writing skills, or, in some contexts, functional literacy. Child labour surveys collect information on involvement of girls and boys in employment or household chores at the same time with school attendance and other individual and household characteristics. There are also surveys that collect data on transition from school to work. For example, in the less developed regions, surveys on child labour and youth employment include a module on transition from education to work. In European countries, the European Union Labour Force Survey ad hoc module on transition from school to work (conducted in 2000 and 2009) provides a framework for the analysis of the effects of education on the labour market.

[Box: ISTAT Education-to-work transition Survey System

ISTAT currently conducts three surveys on post-compulsory school and university graduates, in order to study the participation of different educational levels in the labour market. The three surveys belong to an integrated system: they use questionnaires similar in structure and content and they are based on the same methodological approach. They are carried out every three years on a single graduates cohort (upper secondary school graduates; university graduates; PhD graduates) and three years after graduation. The variety of information about respondents' curriculum and work allows a detailed analysis of the differences between young highly educated women and men in terms of social and economic return of education in Italy.]

Access of adults to education, information, knowledge or life skills may also be addressed through surveys. ICT surveys are a source of information on access of women and men to telecommunication services, internet and computers in both developed and developing countries. In a number of developed countries, other surveys on access of adults to education and training may be available, such as the Eurostat Adult Education Survey and the European enterprise survey on Continuing Vocational Training.

Population censuses collect data on school attendance, literacy and educational attainment, along with other demographic and economic characteristics of the individuals and their living conditions. Although conducted only every 10 years or even less frequently, population censuses are essential sources of benchmark statistics on education.

Conceptual and measurement issues

Enrolment statistics may over-represent girls or boys in educational participation. Enrolment refers to the number of pupils or students officially enrolled or registered in a given grade or level of education. Children who are enrolled but who are not attending school are included in enrolment statistics. In that regard, enrolment captures the intent to participate in education rather than the participation itself (UNESCO Institute for Statistics, 2010b). Depending on the country and level of education, more girls or more boys may be enrolled and not attending school.

Literacy statistics based on indirect assessments may increase artificially the rates for children, women and dependents. A literate person is one who can, with understanding, both read and write a short simple statement on his or her everyday life. The definition of literacy sometimes extends to basic arithmetic and other life skills. Literacy data are only in some cases based on tested literacy. When literacy data is collected for all the household members, for example, one person may respond on behalf of everyone in the household without any testing of the skills. This type of indirect assessment by individuals themselves or by somebody else in the household tends to give higher rates than when literacy is measured by direct assessment. (UNESCO Institute for Statistics, 2008)

Some groups of population with potential distinct gender patterns in educational participation may not be covered in statistics on enrolment or school attendance. On one side, statistics collected from administrative sources, such as enrolment or number of teachers are focused on the regular education system. Students and teachers in private schools not dependent on the national budget, and in certain religious schools or in flexible forms of education (such as evening school or distance learning programmes) are sometimes excluded from official counts (United Nations, 2005). On the other side, statistics on school attendance collected through household surveys may not cover well certain populations such as homeless population or children living in institutions (UNESCO Institute for Statistics, 2010b). Such excluded groups, in both types of statistics, may have different educational participation rates and distinct gender patterns.

Table 2. 1 Gender statistics: Education

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Gender inequality in educational participation in primary and secondary education			
Educational participation	Enrolment in primary education	Level of education, grade, sex and age	School administrative sources
	Enrolment in secondary education	Level of education, grade, sex and age	
	Repetition in primary and secondary education	Level of education, grade and sex	
	School attendance in primary education School attendance in secondary education	Level of education, sex and age. <i>Additional breakdowns:</i> urban/rural areas; geographic areas; ethnicity; wealth status of the household	Household surveys
Causes of low educational participation: family factors	School attendance	Sex, age and level of education, further disaggregated by: urban /rural areas; wealth status of child's household; education of mother; child's employment status; number of hours worked by child as employed or doing household chores	Household surveys
	Education expenditure	Sex of the child	Household surveys
	Qualitative information on reasons for not attending school or dropping out	Sex and level of education.	Household surveys
Schooling environment	Number of teachers	Sex and level of education	School administrative sources
	Qualitative information on curricula content		Content analysis of school books
	Availability of transportation		Household or community surveys, administrative sources
	Availability of separate toilets for girls and boys		Administrative sources

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Unequal participation and segregation in higher education			
Participation in tertiary education	Enrolment in tertiary education	Sex	School administrative sources
Educational segregation	Enrolment in secondary education	Sex and type of programme	School administrative sources
	Enrolment in tertiary education Tertiary graduates	Sex and field of study	School administrative sources
Gender inequality in access to adult education			
Access to information and communication technology	Access to internet, access to computers	Sex and age	Household surveys
Access to adult education and training	Participation in education and training	Sex and age	Household surveys
	Participation in informal learning	Sex and age	Household surveys
	Participation in job-related non-formal education and training	Sex and age	Household surveys
	Participants in continuing vocational training in enterprises	Sex and age	Enterprise surveys
	Access to agricultural information and extension services	Sex	Household surveys or registers
Outcome of gender inequality in education			
Educational outcome	Literacy	Sex and age. <i>Additional breakdowns: urban/rural areas; migration status; ethnicity</i>	Household surveys, population censuses
	Educational attainment	Sex and age. <i>Additional breakdowns: urban/rural areas; migration status; ethnicity</i>	
Participation in research and development	Researchers	Sex, age and field of science	Administrative sources
Labour force participation	Labour force participation, employment, unemployment, occupation	Sex, age and educational attainment	Household surveys or population censuses

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Implications of low education for women			
Marriage and fertility patterns	Women's age at first marriage, women's age at first child	Literacy or educational attainment	Household surveys, population censuses, civil registration
Children's health	Children ever born and children surviving	Age and literacy or educational attainment of the mother	Household surveys or population censuses
	Child deaths in the last 12 months	Literacy or educational attainment of the mother	
	Births	Age and educational attainment of the mother	Civil registration
	Child deaths	Educational attainment of the mother	

Table 2. 2 Identifying data gaps in gender statistics: Education

Sources of data	Are these statistics collected?	Are these conceptual and measurement issues taken into account?
School administrative sources	<ul style="list-style-type: none"> -Enrolment in primary education by grade of education, sex and age -Enrolment in secondary education by grade of education, sex and age -Repeaters by grade and sex -Enrolment in secondary education by sex and type of programme -Enrolment in tertiary education by sex and field of study -Graduates of tertiary education by sex and field of study -Number of teachers by sex -Availability of separate toilets for girls and boys 	-Students and teachers in private schools not dependent on the national budget, and in certain religious schools or in flexible forms of education (such as evening school or distance learning programmes) may be excluded from official counts
Other administrative sources (universities, governmental research facilities, etc.)	-Researchers by sex, age and field of science	

Sources of data	Are these statistics collected?	Are these conceptual and measurement issues taken into account?
Household surveys - focus on children	-School attendance by level of education, sex and age. <i>Additional breakdowns:</i> urban/rural; geographic areas; household wealth status; employment status; number of hours worked -Reasons for not attending school or dropping out by sex and level of education -Literacy by sex and age	-Statistics collected through household surveys may not cover well certain populations such as homeless population, population living in areas to which access is difficult, or children living in institutions - Literacy statistics based on indirect assessments may increase artificially the rates for children, women and dependents.
- focus on adults	-Literacy by sex and age -Educational attainment by sex and age. <i>Additional breakdowns:</i> urban/rural; geographic areas; migration status; ethnicity -Access to internet and access to computers by sex and age -Participation in adult education and training by sex, age and type of education/training -Access to agricultural information and extension services	
- focus on expenditures	-Education expenditure by sex of the child	
Population censuses	-School attendance of children by level of education, sex and age. <i>Additional breakdowns:</i> urban/rural; geographic areas; household wealth status; employment status; number of hours worked -Literacy by sex and age -Educational attainment of adults by sex and age. <i>Additional breakdowns:</i> urban/rural; geographic areas; migration status; ethnicity	- Literacy statistics based on indirect assessments may increase artificially the rates for children, women and dependents.

References

Hedman, Birgitta, Francesca Perucci and Pehr Sundström, 1996. *Engendering Statistics. A Tool for Change*. Statistics Sweden.

UNESCO, 1997. *Gender-sensitive Education Statistics and Indicators. A Practical Guide*. Division of Statistics.

UNESCO, 2010. *EFA Global Monitoring Report. Reaching the marginalized*. Oxford University Press.

UNESCO Institute for Statistics, 2008. *International Literacy Statistics: A Review of Concepts, Methodology and Current Data*. Montreal.

UNESCO Institute for Statistics, 2010a. *Global Education Digest 2010. Comparing Education Statistics Across the World. Special Focus on Gender*. Montreal.

UNESCO Institute for Statistics, 2010b. *Measuring Educational Participation. Analysis of Data Quality and Methodology Based on Ten Studies*. Technical Paper no.4. Montreal.

United Nations, 2005. *The World's Women 2005. Progress in Statistics*. New York.

United Nations, 2010. *The World's Women 2010. Trends and Statistics*. New York.

United Nations Economic Commission for Europe and World Bank Institute, 2010. *Developing Gender Statistics: A Practical Tool*. Geneva.

Work

Gender issues

Women and men have different levels and trends of labour force participation. Labour force participation rates are lower for women than for men and the share of women in the labour force is still far from parity in most of the countries. Different trends may be observed for women and men. For example, in the last two decades, men's labour force participation declined in most of the world (United Nations, 2010). Women's participation remained steady at the global level, however, it increased in some countries, while in others it declined. The gender differences in labour force participation tend to vary by age group. Of particular interest are the age groups corresponding to the entrance to or the exit from the labour market, and the peaks of reproductive interval for women. Changes towards more family-friendly policies, in particular employment protection during pregnancies, childbirth and maternity leave, as well as increased education for women, declining fertility levels and increased life expectancy, may be reflected in changes in the sex and age patterns of labour force participation.

Women are less likely than men to be employed, and when they are employed, they have different working conditions and different opportunities for career advancement. In most of the countries the employment is lower for women than for men, while the unemployment is higher for women than for men. Women may also be found more often than men among the underemployed, working less hours than desired or working in jobs that are inadequate. Women are usually overrepresented in the agricultural sector and low-paid occupations. In contrast, managerial positions and other positions of decision-making are less accessible to women. When it comes to status in employment, women are less likely than men to have regular jobs with stable contract. Instead, they are more likely than men to be in vulnerable employment as contributing family workers and own account workers, with insecure employment, low earnings and low productivity.

Women are overrepresented in informal employment. Women tend to work more often than men in unregulated or unprotected employment, with no written contracts, social protection or benefits. Women may turn to informal employment for different reasons than men. The working conditions – status in employment and income, in particular – may also be different. In addition, women in informal employment may have an increased risk of being exposed to violence and harassment (United Nations Statistics Division, 2001).

Women tend to earn less than men. Women's income tends to be lower than men's income because women are less often employed and, when they are employed, they tend to be more often engaged in unremunerated work. When working in paid employment, women may receive lower wages than men, reflecting differences in occupation, number of hours worked, or gender inequalities in payment for the same job. Women's access to income has

important effects at individual and family level. It increases women's economic autonomy and women's control over the allocation of resources within the household. As a result more income is generally allocated to the education and health of children. Economically independent women also tend to have more decision power on their own spending and to be less often victims of violence by intimate partner.

Women and men have different family constraints in participating on the labour market. Women tend to withdraw temporarily from the labour force and to seek short hours or other flexible working arrangements during childbearing and first years of life of their children. Although many countries have policies on employment protection during pregnancies, childbirth and maternity, women working in atypical forms of work are usually not covered. Maternity leave is widely granted across countries but often inadequate in terms of length and pay. Paternity leave has become more common only recently and only in some countries. Balancing work and family is particularly challenging for employed parents with young children. Child care services may not be available or may be expensive. When family-friendly working arrangements such as flexible hours, part-time work, job-sharing and work from home are not available, one member of the couple, usually the woman, may be forced to stay out of employment.

Caring for children and other dependent household members, preparing meals, cleaning or repairing are disproportionately beared by women (United Nations, 2010). In many countries, more than half of women's total work time is spent on unpaid domestic work. When time used for paid employment and unpaid domestic work is summed up, women work longer hours than men. Women's increased participation in paid employment has not been accompanied by an increase in men's participation in unpaid domestic work. However, the sharing of domestic tasks between the sexes is becoming more equitable in countries from the most developed regions (United Nations, 2010).

Similar to their adult counterparts, girls and boys are involved in different types of work. Boys are more likely to be employed and to work in hazardous conditions (United Nations, 2010). However, girls are more likely than boys to do unpaid domestic work. Long hours of work affect children's ability to participate fully in education and develop the basic skills necessary as adults to participate fully in society. When the time spent on household chores is very high, the school attendance of girls, especially older girls, is more affected than the school attendance of boys.

Statistics needed and sources of data

Table 2.3 shows the statistics needed for each of the gender issues presented above, along with the disaggregation required (sex and other characteristics), and the corresponding sources of data. In summary, labour force participation is captured through statistics on economically active population, employment and unemployment. Some working conditions are measured by statistics on economic activity disaggregated by industry, institutional sector of employment, occupation, and status in employment. Other working conditions are

given by statistics on underemployment, informal employment, and on wages and earnings. All these statistics on labour force have as basis the concept of economic activity as defined by the general production boundary of the System of National Accounts (SNA) (see the section on conceptual and measurement issues for further details). Work activities that are beyond the production boundary of the SNA (as well as work activities within the production boundary of SNA) can be captured through time use statistics. Child labour statistics are especially needed in countries where a significant number of children are working in contravention of agreed international labour standards and national legislation safeguarding the interest and welfare of children (International Labour Office, 2008).

Statistic on work are mainly collected through (a) labour force surveys or labour force modules attached to other household surveys; (b) population censuses; (c) establishment censuses or surveys; (d) administrative records, such as employment exchange registers, unemployment registers, public sector payrolls; (e) time use surveys; and (f) child labour surveys.

Labour force surveys usually collect data on economically active, employed and unemployed populations, and on the detailed distribution of those populations by industry, occupation and by status in employment. Labour force surveys may also collect data on underemployment, employment-related income, informal employment, and time use. In some countries, labour force surveys may collect information on employment and household work for children over 10 years old.

Labour force surveys or multi-purpose household surveys may provide information necessary to understand women's and men's position on the labour market and the work-family balance. This information may refer to individual's education and work history, or it may refer to the family background - marital status, fertility, and demographic and economic composition of the household. When possible, other useful information may be collected on the distribution of gender roles within the household – responsibilities and/or time spent caring for children, ill, disabled or older household members, or for other domestic work.

Population censuses usually collect data on economic activity status, industry, occupation and status in employment. Some of the censuses may also collect data on employment-related income and time worked.

Establishment censuses or surveys are a source of data on paid employment by industry and status in employment, formal hours of work, and earning or wages. Some establishment surveys may also collect data on child labour.

Administrative records are a source of data on selected groups of employed, registered unemployment, and earning or wages in the public sector.

Time use surveys provide data on time-use allocation for all activities and specifically for paid and unpaid work, along with contextual information necessary to distinguish between paid

and various types of unpaid activities, and background information at individual and household levels. These data are input for (a) identification of time-use patterns; (b) measuring and valuing unpaid domestic and volunteer work; (c) improving estimates of standard labour-force statistics, including time spent on informal sector activities and unpaid productive activities (United Nations, 2005a). Modules on time use may be attached to labour force surveys, living conditions surveys or other multi-purpose surveys. Most often these modules involve a set of questions targeted to some activities of concern, for example, time allocated to a specific list of unpaid economic activities (such as water collection); or time allocated to a specific list of unpaid domestic work (such as caring for ill persons; cooking and preparing meals; small housing repairs).

Child labour surveys collect comprehensive information on child's employment and child's involvement in household chores. These surveys would collect, for example, data on type of activities performed by children; hours of work by type of activity; child's school attendance; out of school children; children's health; orphanhood; wealth status of the household; demographic and economic characteristics for other household members. Household surveys such as DHS (Demographic and Health Survey) or MICS (Multiple Indicator Cluster Survey) may also include questions or a module on child labour.

Conceptual and measurement issues

According to international guidelines in mainstreaming gender in labour statistics, definitions and measurement methods should "cover and adequately describe all workers and work situations in sufficient detail to allow relevant gender comparisons to be made" (International Labour Office, 2003a).

Not all forms of work are covered by labour statistics. The economically active population is defined as comprising "all persons of either sex who furnish, or are available to furnish, the supply of labour for the production of economic goods and services as defined by the United Nations systems of national accounts and balances, during a specified time-reference period" (International Labour Office, 1982). Thus, the conventional labour statistics are currently limited to activities which contribute to the production of goods and services as defined by the SNA. Employment and disaggregations of economic activity by industry, status in employment or occupation cover mainly market work and some non-market work. Included non-market work refers to activities that produce goods for own consumption, such as: agricultural work, fishing, hunting, cutting firewood, carrying water, threshing and milling grain, making butter and cheese, slaughtering livestock, etc. These unpaid productive activities are within the general productive boundary of SNA. Own account production of services, mostly carried out by women, is outside the general boundary of SNA and therefore not covered in the definition of the economically active population. This type of work refers to cleaning dwellings; small repair; preparing and serving meals; caring for and instructing children; caring for other persons; as well as certain types of volunteer community services. Thus, based on conventional labour statistics, the participation of

women in work activities and their contribution to economy tend to be underestimated (United Nations Statistics Division, 2001; Mata-Greenwood, 2003). It is therefore important that the work of women as well as the work of men is also reflected in statistics that specifically address the issue of own account production of services, such as statistics on time use.

Chart 2.2 **Economic production as defined in the current System of National Accounts**

Women's economic activity and employment may be underreported. The underestimation of women's participation in economic activities may result from incomplete measurement of all forms of work implied by the definition of economically active population and SNA production boundary (United Nations Statistics Division, 2001). Some of the economic activities may be omitted because it is difficult to separate own account production of goods (non-market activities within the SNA general production boundary) from the own account production of services (considered outside the SNA production boundary). Gender-based stereotypes of women regarded as a housewife in charge with domestic work may also contribute to the under-reporting of economic activities.

Furthermore, the coverage of women's activities may depend on the reference period chosen to define the economically active population. The economically active population is measured either based on the "current activity status" or the "usual activity status" (International Labour Office, 1982). The former approach is based on a brief reference period (one week or one day), while the latter approach identifies employment or unemployment status in relation to a longer specified period (for example, the preceding 12 months). The use of this longer reference period is expected to better capture the subtleties of women's seasonal and intermittent labour force activity in agriculture and informal economy than would a simple measurement based on current activity status (United Nations, 1984; Mata-Greenwood, 2003).

Finally, some groups of women or men may be underreported in employment statistics due to limitations of the sources of data used. By definition, employment includes persons at work, even if only for one hour during the reference period of one week or one day, and also persons temporarily absent from work. However, establishment-based surveys may cover only regular employees and they may leave out managerial staff as well as employed persons who work part-time, are seasonal or are contracted from other agencies (Mata-Greenwood, 2003). These surveys may also exclude from their samples small enterprises where women may be more often found.

Women's unemployment may be underreported. The unemployed population is defined as comprising all persons above a specified age who during the reference period were: "without work", that is, were not employed; "currently available for work", that is, were available for paid employment or self-employment; and "seeking work", that is, had taken

specific steps in a specified reference period to seek paid employment or self-employment (International Labour Office, 1982). The criterion of seeking work should be relaxed in situations where the conventional means of seeking employment are of limited relevance, where the labour market is largely unorganized or of limited scope, where labour absorption is, at the time, inadequate, or where the labour force is largely self-employed (International Labour Office, 1982). Women may be underreported in the unemployed for three main reasons. First, women may be perceived or they may define themselves as not seeking work, because (a) they are less likely to use in their search formal channels such as going to government offices, applying formally, or registering with unemployment agencies; and (b) they are more likely to look for work that would be mislabelled as “non-economic” (United Nations, 2005b; Mata-Greenwood, 2003). Second, women are more likely to be “discouraged workers” or “seasonal workers” waiting for the busy season. These categories would be considered “unemployed” only if a relaxed criterion of “seeking work” is used. Third, when data on unemployment is collected from administrative sources, the unemployed population is reduced to those receiving benefits or registered in the offices for job seeking, and women may be more likely to be among the excluded groups (Mata-Greenwood, 2003).

Chart 2. 3 Labour force framework

Occupation and status in employment should be measured in detail. Differences in forms of work carried out by women and men and specific work conditions can be assessed properly only when occupation and status in employment are measured in detail. An occupation is defined by the tasks and duties of a given job and the skill level necessary to carry out those tasks and duties involved. It is recommended that a detailed classification is used to collect data on occupations. Sub-major groups, minor and unit groups within the ISCO (International Standard Classification of Occupations) may be used to explore in depth the occupations where women and men may be overrepresented. Differences in other working conditions may also become visible with a more detailed classification – for example, occupations in informal sector are covered at the most disaggregated level, of unit groups.

Status in employment refers to the type of explicit or implicit contract of employment an individual has with his or her employer or other persons or organizations. Criteria used in the classification of status in employment refer to (a) economic risk (where the strength of the attachment between the person and the job is the main element) and (b) authority over establishment or other workers (International Labour Office, 1993). Such criteria are essential in differentiating working conditions for women and men. Women are less likely to be attached formally and on a continuous basis to a particular job and they are less likely to be in a position of authority over establishment or other workers. It is recommended that status in employment data are collected separately for employees, and each of the four categories of self-employment: employers, own-account workers, contributing family workers and members of producers’ cooperatives.

Besides the main five categories of status in employment, other groups were specified within the ICLS resolution concerning the International Classification of Status in Employment (International Labour Office, 1993). Those groups are subcategories of the five main categories of status in employment or they cut across two or more categories. Such groups may be relevant for some countries and from a gender perspective. For example, “owner-managers of incorporated enterprises” and “employees with stable contracts” may be groups with over-representation of men. “Casual workers”, “short-term workers”, “seasonal workers” – all part of “workers in precarious employment”; and “subsistence workers” may be groups with over-representation of women.

Women may be misclassified in status in employment categories. Inadequate measurement of status in employment with impact on gender statistics may derive from misclassification of jobs. For example, according to international guidelines, women who work in association and on an equal footing with their husbands in a family enterprise should be classified in the same status in employment category as their husbands, either “own account workers” or “employers”. However, women in these situations are sometimes classified as contributing family workers (Mata-Greenwood, 2003). Some misrepresentation of the status in employment may also occur when a person has two or more jobs during the reference period, and this situation may be more relevant for women than for men. The status in employment should refer to the job at which “he/she has worked the longest hours, or which has provided the highest income from employment” (International Labour Office, 1993). Depending on the criteria used – time or income – women may be recorded, for example, as “contributing family workers” (when most time is spent on that job) or as “own-account workers” (when income obtained from that job is perceived as more significant).

Adequate time use statistics are essential in providing reliable measures of unpaid domestic work for women and in improving estimates of standard labour-force statistics. It is important that time use statistics distinguish between (a) work activities that are outside the general production boundary of the System of National Accounts (SNA) and therefore not counted as economic activity – such as cleaning, maintaining and repairing, preparing food, care for children and for older people; (b) work activities within the general productive boundary of SNA but not remunerated – such as the production of goods for own final use, including growing or gathering field crops, or fetching water and firewood; (c) work activities within the boundary of SNA and paid – such as formal employment in producing goods and services that are supplied to other units. The separation between these types of activities is possible only when additional contextual information is collected in the time use surveys. This information refers to whether the activities were paid or not paid and for whom the work was performed (United Nations, 2005a).

Specific types of activities, often related to unpaid work and often performed by women, can be identified only when simultaneous activities are recorded for the time use. When estimates of time-use are based only on primary activities, many activities such as caring for

children, ill, or older persons for example, are clearly underestimated. These “missing” activities would typically be reported as secondary or simultaneous activities.

Table 2. 3 Gender statistics: Work

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Gender differences in participation on the labour market			
Labour force participation	Labour force participation	Sex and age. <i>Additional breakdowns:</i> urban/rural areas; geographical areas; migration status; educational attainment	Household surveys, population censuses
	Employment	Sex and age. <i>Additional breakdowns:</i> urban/rural areas; geographical areas; migration status; educational attainment	Household surveys, population censuses, administrative sources and establishment surveys
	Unemployment	Sex and age. <i>Additional breakdowns:</i> urban/rural areas; geographical areas; migration status; educational attainment	Household surveys, population censuses, administrative sources
	Economically not active	Sex and age. <i>Additional breakdowns:</i> urban/rural areas; geographical areas; migration status; educational attainment	Household surveys, population censuses
Gender differences in working conditions			
Working conditions	Underemployment	Sex and age	Household surveys
	Employment by industry (branch of economic activity)	Sex and age	Household surveys, population census
	Employment by institutional sector of employment	Sex and age	Household surveys, population censuses
	Employment by occupation	Sex and age. <i>Additional breakdown:</i> educational attainment	Household surveys, population censuses
	Employment by status in employment	Sex and age	Household surveys, population censuses
	Informal employment	Sex, age and status in employment	Household surveys
	Wages or earnings	Sex and occupation. <i>Additional breakdowns:</i> age, level of education, years of seniority in employment	Establishment surveys, administrative sources, labour force surveys

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Family constraints in participating on the labour market			
Work-family balance	Employment, status in employment and numbers of hours worked	Sex and age further disaggregated by: marital status, employment status of the partner, presence in the household of pre-school children or other dependents in need for care, availability of childcare services	Household surveys
	Availability of childcare services		Administrative sources, community surveys
	Enrolment in pre-primary education		School administrative sources
	Qualitative information on maternity and paternity leave		Legislation and administrative information
Gendered patterns in time use			
Time use	Time use by type of activity within and outside the SNA production boundary (for total population and population involved in the activity) Participation by type of activity	Sex, age and detailed types of activity. <i>Additional breakdowns:</i> urban/rural areas; geographical areas	Time use surveys or time use module in labour force surveys or living standard surveys
Gender differences in the type of work and number of hours worked by children			
Child labour	Number of children employed, number of children working in worst forms of work, below minimum age, and in hazardous conditions (child labour)	Sex and age. <i>Additional breakdowns:</i> urban/rural areas; geographical areas; wealth status of child's household	Child labour force surveys, labour surveys, module in surveys focused on children (DHS, MICS), establishment surveys
	Number of hours worked in employment and unpaid household services	Sex and age. <i>Additional breakdowns:</i> urban/rural areas; geographical areas; wealth status of child's household	Child labour force surveys, module in surveys focused on children (DHS, MICS)

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
	School attendance	Sex, age and employment status or hours worked. <i>Additional breakdown:</i> urban/rural areas; wealth status of child's household	

Table 2. 4 Identifying data gaps in gender statistics: Work

Sources of data	Are these statistics collected?	Are these conceptual and measurement issues taken into account?
Labour force surveys	<ul style="list-style-type: none"> -Economically active population, employment and unemployment by sex and age -Employment by industry, sex and age -Employment by institutional sector -Status in employment by sex and age. -Detailed occupation by sex. <i>Additional breakdown:</i> educational attainment -Number of hours worked by sex -Wages or earnings by sex. <i>Additional breakdowns:</i> age, educational attainment, years of seniority in employment -Informal employment by sex and status in employment -Employment, status in employment and numbers of hours worked by sex and age further disaggregated by: marital status, employment status of the partner, presence in the household of pre-school children or other dependents in need for care, availability of childcare services -Time use by type of activity relative to SNA classification of economic activities, sex and age -Child's employment status and number of hours worked in employment and unpaid household services by sex and age. <i>Additional breakdowns:</i> school attendance, wealth status of the household 	<ul style="list-style-type: none"> -Measurement of all forms of work implied by the international definition of economically active population -The "current activity status" approach (short-term reference period) should be supplemented by the "usual activity status" approach (longer term reference period) -The criterion of seeking work should be relaxed in situations where the conventional means of seeking employment are of limited relevance -Inadequate measurement of status in employment with impact on gender statistics may derive from misclassification of jobs -Occupations and status in employment should be measured in detail -Besides the main five categories of status in employment, other groups should be measured where relevant: "owner-managers of incorporated enterprises"; "employees with stable contracts"; "casual workers"; "short-term workers"; "seasonal workers"; "subsistence workers".
Population censuses	<ul style="list-style-type: none"> -Economically active population, employment and unemployment by sex and age -Employment by industry, sex and age -Status in employment by sex. -Detailed occupation by sex. <i>Additional breakdown:</i> educational attainment 	

Sources of data	Are these statistics collected?	Are these conceptual and measurement issues taken into account?
Establishment census or surveys	-Wages or earnings by sex -Employment by sex and age -Hours of work by sex and age	-Information may relate to jobs/positions and not persons -Information may refer to regular employees only -Small enterprises (where women are overrepresented) may be excluded
Administrative records	-Employment by sex -Unemployment by sex -Wage or earnings by sex	Some groups of employed or unemployed are excluded
Time use surveys	-Time use by type of activity within and outside the SNA production boundary, sex and age (total population and population involved in each activity) -Participation by type of activity, sex and age	-Information on whether the activities were paid or not paid and for whom the work was performed -Simultaneous activities are recorded
Child labour surveys	-Child's employment status and number of hours worked in employment and unpaid household services by sex and age. <i>Additional breakdowns:</i> school attendance, wealth status of the household, urban/rural areas	

References

Hedman, Birgitta, Francesca Perucci and Pehr Sundström, 1996. *Engendering Statistics. A Tool for Change*. Statistics Sweden.

Husmanns, Ralf, 2004. Measuring the informal economy: From employment in the informal sector to informal employment. Working Paper No.53. International Labour Office. Geneva.

International Labour Office, 1982. Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the Thirteenth International Conference of Labour Statisticians.

International Labour Office, 1993. Resolution concerning the International Classification of Status in Employment (ICSE), adopted by the Fifteenth International Conference of Labour Statisticians.

International Labour Office, 2003a. Checklist of good practices for mainstreaming gender in labour statistics. Guidelines adopted by the Seventeenth International Conference of Labour Statisticians.

International Labour Office, 2003b. Guidelines concerning a statistical definition of informal employment. The Seventeenth International Conference of Labour Statisticians.

International Labour Office, 2008. Resolution concerning statistics of child labour. Resolution II. The Eighteenth International Conference of Labour Statisticians

Mata-Greenwood, Adriana, 1999. Incorporating gender issues in labour statistics.

Mata-Greenwood, Adriana, 2003. Producing Labour Statistics that are useful for addressing gender concerns. Room Document for XVII International Conference of Labour Statisticians (ICLS/17/2003/RD.9), Geneva, 24 November – 3 December 2003.

United Nations, 1984. *Improving concepts and methods for statistics and indicators on the situation of women*. New York.

United Nations, 2001. Gender and Statistics Briefing Note: The Informal Sector. New York.

United Nations, 2005a. *Guide to Producing Statistics on Time Use: Measuring Paid and Unpaid Work*. New York.

United Nations, 2005b. *The World's Women 2005. Progress in Statistics*. New York.

United Nations, 2010. *The World's Women 2010. Trends and Statistics*. New York.

United Nations Economic Commission for Europe and World Bank Institute, 2010. *Developing Gender Statistics: A Practical Tool*. Geneva.

United Nations Statistics Division, 2001. Gender and Statistics Briefing Note. System of National Accounts.

Poverty

Gender issues

Women and men have unequal opportunities to income, property, credit and loans. Women are more likely than men to have small, unsteady and only paid in kind income; and they are disadvantaged by statutory and customary laws in their access to ownership of land, housing, livestock or other property. Women's chances to obtain credit and loans are also smaller, because of their low access to income and property, and because more often their business is in informal and low-growth sectors.

Lower access to economic resources increases women's economic dependency on men. When men with higher earnings or a pension are not around any more because of divorce, migration or death, women as lone mothers and older women living alone have a higher risk of poverty. Households of lone mothers and single women may also be more vulnerable to economic or environmental shocks, because of the obstacles faced by women in accessing the economic resources necessary for recovery.

Women may be poorer than men living in the same household. Women may have less decision-making power on intrahousehold allocation of resources and fewer resources may be allocated to the female members of the household. Women may not be able to decide, for example, on the use or disposal of land, and they may have no say on how the household earnings, including their own cash earnings, are spent or invested. Girls may receive less education than boys and this may be due to lower returns expected from investing in girls' education. Girls may also have more housework responsibilities and therefore their school attendance may be lower than boys'. In general, the use of time is not the same for women and for men. Overall, women work longer hours than men and have less leisure time because the domestic tasks are not equally distributed in the household.

There is a gendered experience of poverty. Women and girls may experience more and deeper disadvantages when they live in poor households or poor areas. In some countries the gender gap in school attendance is much larger in the poorest households compared to the wealthiest households. In areas with poor access to clean water and energy, women bear most of the resulting work burden and harmful health effects. Women from poor households are less likely to participate in intrahousehold decision-making on spending and they may be more often victims of domestic violence.

Statistics needed

Household-level poverty statistics should be disaggregated in detail by type of household. The types of household considered should be based on the household composition by sex and age, or a combination of sex and age with educational or economic characteristics of adults.

Households of one female or male adult with or without children – such as lone mothers with children; lone fathers with children; female one-person households; male one-person households; older female one-person; older male one-person households – should be included along with other types of household. When poverty data is disaggregated by characteristics of the head of household such as sex, age, education, or some economic characteristic, the criteria in identifying the head of the household should be provided.

Statistics on access to cash and in kind income need to be at individual level and disaggregated by source of income and sex. Sources of income should distinguish between regular and occasional types of income. In some countries it may also be possible to obtain the monetary value of different types of income at individual level and calculate the contribution of women and men to the total household income.

Property ownership data need to be collected at individual level and disaggregated by sex. Such data may refer to housing, land, livestock or other property. When data are collected at household level, it should be shown whether the assets are owned individually by some household members or jointly. When ownership data are collected through household surveys, more information may be obtain on how the assets were acquired, what is their value, and whether female and male household members have decision-making power on their use and disposal (UNECE and World Bank Institute, 2010). It is important to identify the owner of the assets separately from the decision-maker or manager of the business (Fuwa and others, 2000). Also, because sometimes distinct areas of land are managed separately by the wife and the husband, it may be desirable to collect data on individual plots of land by their ownership and persons involved in decision-making (Fuwa and others, 2000). Contextual qualitative information on property and inheritance rights that may discriminate against women may be needed and obtained from non-statistical sources.

Intrahousehold allocation of resources can be reflected in sex and age disaggregated statistics on children's school attendance, immunization, anthropometric outcomes, and educational and health expenditures; use of health services; time use for household work, including water and firewood collection; individual consumption of specific goods such as clothing, footwear or tobacco; and individual involvement in decision-making on spending and saving.

Some social statistics by sex may be further disaggregated in order to show whether gender inequalities are greater in the poorest groups of population. For example, school attendance, immunization, prenatal care, and violence against women may be disaggregated by wealth status of the household. Statistics on political participation (such as voting in elections) may be disaggregated by poor/ non-poor areas or may refer to urban slums.

Table 2.5 shows in a synthetic manner the statistics needed to address poverty-related gender issues, along with the disaggregation required (sex and other characteristics), and the corresponding sources of data.

Sources of data

Poverty-related gender statistics are collected mainly through household surveys (see tables 2.5 and 2.6).

Household income and expenditure surveys and living standard / living conditions surveys collect income and expenditure data necessary to calculate poverty rates. Age and sex, and sometimes education and economic characteristics are collected for all household members, while more characteristics may be collected for the head of the household. This additional information is useful in identifying detailed types of households and calculation of corresponding poverty rates.

Living standard/ living conditions household surveys may include several additional modules. For example, some of the LSMS (Living Standard Measurement Study) surveys include questions or modules on time use, access to education and health, access to land and other property, consumption of some goods at individual level, or expenditures on education and health at individual level. The EU-SILC (European Union Statistics on Income and Living Conditions) has a module on material deprivation and a module on intrahousehold sharing of resources, with some of the questions formulated at individual level. The EU-SILC also collects data on income at individual level.

Demographic and health household surveys such as DHS and MICS are a valuable source of data for non-consumption indicators of poverty. Education and health status of children and women are the focus of those types of surveys. Women's participation in intrahousehold decision-making may also be covered. In addition, both DHS and MICS provide data on household assets and housing conditions that are necessary to assess the gendered experience of poverty. These data allow for the construction of wealth indices that can be used as breakdown variables for sex-disaggregated statistics on education and health.

Similarly, data collected through other household surveys can be used to assess the gendered experience of poverty. For example, data collected through *time use surveys* can show how women's and men's time burden is affected by a poor environment or poor housing conditions. Data collected through *surveys on violence against women* can show whether women in poor households have a higher risk of being victims of domestic violence.

Population and housing censuses may collect data on property ownership, although, most of the time the data are collected at household level, without taking into account a joint ownership. Similarly, *agricultural censuses and surveys* may collect data on land and livestock ownership and on "agricultural holder" (basically defined as a decision-maker or manager), although most often at household or agricultural holding level, without taking into account joint ownership or decision-making.

Conceptual and measurement issues

Household-level data has limited value in assessing the poverty of women and men. Poverty is traditionally measured based on income or expenditure aggregated at household level, and the number of poor (women or men) is calculated as the number of people living in households found below a poverty line. The inequality within the household in satisfying individual basic needs is not taken into account, mainly because it is difficult to know how household income is spent or consumed on an individual basis or how expenditures are distributed to each household member. When collecting data on individual consumption, only part of the goods – for example, adult clothing, alcohol or tobacco – can be assigned to specific members of the household. It is less easy to measure how much of the food or household common goods (such as housing, water supply or sanitation) is consumed or used by each individual household member. In addition, when different patterns of consumption are observed it is not always clear if they are related to different individual levels of need (for example, women may require a lower caloric intake than men), to different preferences or to unequal distribution of resources.

The disaggregation of household poverty data by sex of the household members is possible, but it gives only a poor measure of women's and men's poverty. The results of this disaggregation are not going to reflect possible gender inequality within the households but merely the distribution of population by sex in poor households. If in the same household women consume or spend less than what they need to function properly physically and socially (therefore poor), while men consume or spend what they need or more (therefore non-poor), those women and men in the household are still considered to have the same poverty status, either poor or non-poor, depending on the average consumption estimated at the household level. This approach may lead to undercounting of women in poverty because additional poor women might be found in some non-poor households.

The gender gap measured based on a simple disaggregation of poverty counts by sex is heavily influenced by country-specific living arrangements and ageing factors. Poverty rates for women may appear higher than poverty rates for men especially in countries with significant proportions of households with overrepresentation of women, such as households of lone mothers with young children and female one-person households, particularly one-person households of older women.

Female- and male-headed households are heterogeneous categories with limited value in the analysis of gender and poverty. Female- and male-headed households, often used in the analysis of gender and poverty, need to be further disaggregated in order to show consistent patterns of gender inequality in poverty. Female-headed households cover a broad range of situations from one-person households, households of lone mothers with children and households of couples with or without children where the woman rather than the man is reported as the household head. They may include de jure female-headed households, where women do not have a male partner, or de facto female-headed households, where the male partner is temporarily absent and may or may not contribute remittances to the household's welfare.

Similarly, male-headed households may include one-person households, households of lone fathers with children or households of couples with or without children. In some countries, the male head may also be a polygamist rather than a monogamist.

It is important that the criteria used to identify the household head are specified. Use of different criteria in defining the household headship leads to the identification of different sets of households with different poverty rates (Fuwa, 2000). The traditional notion of head of household assumes that one person has primary authority and responsibility for household affairs and is, in the majority of cases, its chief economic support. However, where spouses are considered equal in household authority and responsibility and may share economic support, the concept of head of household is no longer considered valid. Even in the many countries where the traditional concept is still relevant, it is important to recognize that the procedures followed in applying it may distort the true picture, particularly with regard to female heads of households. The most common assumption that can skew the facts is that no woman can be the head of any household that also contains an adult male. This fact is often neglected, resulting in biased interpretation of association between gender and poverty.

Table 2. 5 Gender statistics: Poverty

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Unequal opportunities to income, property, credit and loans			
Access to income	Individual access to cash and in kind income Individual income	Sex and regularity of source of income Sex	Household surveys
Access to property	Individual ownership of house, land, livestock or other property Individual/joint ownership of house, land, or livestock	Sex	Household surveys Population and housing censuses, agricultural censuses
Access to banking and financial services	Individual access to credit and loans, including microcredit	Sex	Household surveys
Vulnerable types of households			
Household-level poverty	Household with income or expenditure below the poverty line	Detailed types of households (according to demographic and economic composition). <i>Additional breakdowns:</i> urban/rural areas; geographical areas	Household income and expenditure surveys, living standard surveys

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Intrahousehold inequality			
Education	Children 's school attendance	Sex, age, level of education. <i>Additional breakdown:</i> urban/rural; geographical areas; ethnicity	Household surveys
Health	Children's height and weight	Sex and age. <i>Additional breakdown:</i> urban/rural; geographical areas; ethnicity	Household surveys
	Children's immunization	Sex and age. <i>Additional breakdown:</i> urban/rural; geographical areas; ethnicity	
	Use of health services	Sex and age. <i>Additional breakdown:</i> urban/rural; geographical areas; ethnicity	
Household expenditures	Educational and health expenditures for children	Sex of the child. <i>Additional breakdown:</i> urban/rural; geographical areas	Household expenditure surveys
	Individual consumption of some specific goods (clothing, footwear, tobacco)	Sex and age. <i>Additional breakdown:</i> urban/rural; geographical areas	
Time use	Time use for household work	Sex and age. <i>Additional breakdown:</i> urban/rural; geographical areas; ethnicity	Time use survey or module on time use in other household surveys
Intrahousehold decision-making	Decision-making on spending and saving own income or household income	Sex and marital status. <i>Additional breakdown:</i> urban/rural; geographical areas; ethnicity	Household surveys
Gendered experience of poverty			
Education	Children 's school attendance	Sex, age, level of education and wealth status of the household	Household surveys
Health	Children's immunization	Sex, age and wealth status of the household	Household surveys
	Prenatal care	Wealth status of the household	
Decision-making	Decision-making on spending and saving own income or household income	Sex and wealth status of the household	Household surveys

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Domestic violence	Women victims of domestic violence	Wealth status of the household	Violence against women surveys
Political participation	Voting participation	Wealth status of the household; poor/non-poor urban and rural areas	Household surveys

Table 2. 6 Identifying data gaps in gender statistics: Poverty

Sources of data	Are these statistics collected?	Are these conceptual and measurement issues taken into account?
Living standard surveys; household and income surveys	<ul style="list-style-type: none"> -Poverty data disaggregated in detail by type of household -Educational and health expenditures for children by sex of the child -Individual consumption of some specific goods (clothing, footwear, tobacco) by sex and age -Individual access to cash and in kind income by source of income (regular or occasional) and sex -Individual income by sex -Individual ownership of house, land, livestock or other property by sex -Individual access to credit and loans, including microcredit by sex -Time use for household work by sex, age and wealth status of the household -Decision-making on spending and saving own income or household income by sex and wealth status of the household 	<ul style="list-style-type: none"> - Household-level data has limited value in assessing the poverty of women and men. The disaggregation of household poverty data by sex of the household members gives only a poor measure of women's and men's poverty. - Female- and male-headed households need to be further disaggregated in order to show consistent patterns of gender inequality in poverty. - Criteria used to identify the household head should be specified
DHS and MICS surveys	<ul style="list-style-type: none"> -Individual access to cash and in kind income by source of income (regular or occasional) and sex -Children 's school attendance by sex and wealth status of the household -Children's immunization by sex and wealth status of the household -Use of health services by sex and wealth status of the household -Decision-making on spending and saving own income or household income by sex and wealth status of the household -Prenatal care by wealth status of the household 	

Sources of data	Are these statistics collected?	Are these conceptual and measurement issues taken into account?
Population and housing censuses	-Ownership of house, land, livestock or other property by sex	-Is the data measured at individual level? Is the joint ownership taken into account?
Agricultural censuses and surveys	-Ownership of land, livestock by sex -Agricultural holder by sex	-Is the data measured at individual level? Is the joint ownership taken into account? Is the joint decision-making taken into account?
Time use surveys	-Time use for paid and unpaid work by sex, age and wealth status of the household	
Violence against women surveys	-Victims of domestic violence by sex and wealth status of the household	
Other surveys	-Political participation by wealth status of the household and poor/non-poor areas	

References

Bamberger, Michael, Mark Blackden, Lucia Fort, and Violeta Manoukian, 2002. "Gender" (chapter) in *A Sourcebook for Poverty Reduction Strategies*. Vol.I. World Bank. Washington DC

Case, Anne and Angus Deaton, 2002. Consumption, health, gender and poverty. Center for Health and Wellbeing Working Paper no. 21. Princeton University.

Food and Agriculture Organization of the United Nations, 2005. *A System of Integrated Agricultural Censuses and Surveys, vol. 1: World Programme for the Census of Agriculture*. FAO Statistical Development Series 11. Rome: FAO.

Fuwa, Nobuhiko, 2000. The poverty and heterogeneity among female-headed households revisited: the case of Panama. *World Development*, vol. 28, no. 8, pp. 1515–1542.

Fuwa, Nobuhiko, Shahidur R. Khandker, Andrew D. Mason, and Tara Vishwanath, 2000. Intra-household Analysis, in *Designing Household Survey Questionnaires for Developing Countries. Lessons from 15 years of the Living Standards Measurement Study*. Edited by Margaret Grossh and Paul Glewwe. World Bank, Washington DC.

Lampietti, Julian A. and Linda Stalker, 2000. Consumption expenditure and female poverty: a review of the evidence. World Bank Policy Research Report on Gender and Development. Working Paper Series no. 11. Washington, DC: World Bank.

United Nations, 2008. Principles and Recommendations for Population and Housing Censuses. Revision 2. Sales No. E.07.XVII.8. New York: United Nations Statistics Division.

United Nations, 2009. *Rethinking Poverty: Report on the World Social Situation 2010*. Sales No. E.09.IV.10. New York: Department of Economic and Social Affairs.

United Nations, 2010. *The World's Women 2010. Trends and Statistics*. New York.

United Nations Economic Commission for Europe and World Bank Institute, 2010. *Developing Gender Statistics: A Practical Tool*. Geneva.

Environment

Gender issues

Environmental conditions have a different impact on the lives of women and men due to existing gender inequality.

Poor infrastructure and living conditions increase the work burden of women and men, but especially women's. Lack of access to drinking water on the premises or within a short distance continues to affect the lives of women and men in countries from the less developed regions, especially in rural areas. When water is not available on the premises, women are more often responsible for water collection than men are (United Nations, 2010). Girls are also more likely than boys to be in charge of water collection. The resulting time spent to fetch water is much greater for women than for men, especially in the rural areas.

Similarly, lack of access to modern heating services increases the time burden of women and men (United Nations, 2010). In some countries a large proportion of households still use firewood for cooking and heating. In communities from poor areas affected by deforestation or where nearby forests are protected, women and men may need to take longer and longer trips to collect firewood. In some countries women may spend more time than men collecting firewood, while in others men may spend more time.

Environmental conditions have a major impact on women's and men's health. Among the health-risk factors related to the environment, two have the largest contribution to the world's burden of disease: unsafe water, sanitation and hygiene; and indoor smoke from solid fuels (World Health Organization, 2009). Other factors may refer to outdoor air pollution, chemical exposure and occupational risks. Women and men may be affected differently by each type of factor. For example, some occupational injuries may be more often associated with men. Indoor smoke from solid fuels, on the other hand, affects more women than men. In households where the cooking is done with solid fuels and the ventilation is poor, women are more likely than men to develop acute lower respiratory infections, chronic obstructive pulmonary disease and lung cancer (Desai and others, 2004; Ezzati and others, 2004). The increased health risk for women is mainly due to the fact that women spend more time indoors and more time near the fire while cooking, and are therefore more exposed to high-intensity pollution episodes (World Health Organization, 2006).

Natural disasters may affect women and men differently. The lives of thousands of women and men are lost worldwide every year as a result of natural disasters. Mortality differences by sex may vary from one country to another and by type of hazard (United Nations, 2010). For example, more women than men died during the 2004 tsunami, as a result of less access to information and life skills development, and culturally constrained mobility of women outside of their homes. The excess mortality due to the 2003 summer heat wave in some

European countries was also higher for women and older persons. Natural hazards in other countries, however, caused larger shares of male deaths.

Qualitative studies suggest that the gendered impact of natural disasters may also be found in other areas, such as food security and access to resources for recovery (Commission on the Status of Women, 2002). Women in the less developed regions are considered among the most vulnerable groups, as they tend to be more dependent on the natural resources affected by the natural disasters and have fewer assets to access additional resources necessary to speed the recovery.

Women's role in sustainable development does not reach its potential. Women's role in sustainable development may be hampered by several factors (United Nations, 2010). Compared to men, women have lower access to land, financial resources and agricultural information and technologies. Women are less likely than men to be formally trained in professional natural resources management. They are also less likely than men to be involved in policy formulation and decision making in natural resources and environment management.

Statistics needed and sources of data

Environment statistics is one of the statistical fields traditionally considered gender-neutral and often developed without much consideration of all aspects and implications related to individuals. In fact, the collection of gender statistics related to the environment does not take place within the usual field of environment statistics, but integrated within the social statistics. Gender statistics related to the environment may be produced, for example, as part of statistics on time use, housing conditions, health, or education. Table 2.7 shows the statistics needed for each of the gender issues presented above, along with the disaggregation required and the corresponding sources of data.

Gender statistics related to the environment may be collected through (a) time use surveys, (b) household surveys, (c) population and housing census, and (d) administrative sources.

Time use surveys are especially important in countries from the less developed regions, where poor infrastructure and housing conditions, as well as natural hazards, result in increased work burdens. Time use data would show, for example, the proportion of women and men who need to carry home water and firewood and what is the corresponding time spent. It is important that additional information is collected in the same survey. For example, the gender-specific time burden in water collection may be associated with other factors such as age, employment or economic status. Or, the purposes for which women and men collect firewood – for example, for household needs (cooking and heating), to sell (and gain income) or as an input for income-earning activities (for example, a bakery or brick kiln) – may be different. It is also important to have time use data on trends and on smaller areas than the national level. Those data may be used to assess differences in women's and men's time burden in access to natural resources or agriculture in areas affected by droughts, floods, deforestation or desertification, for example.

Household surveys such as DHS and MICS may provide information on environmental conditions, although very little on the implications of those conditions for women and men. For example, some of the housing conditions data collected by these surveys refer to access to water and sanitation. Data are collected on whether the households have access to water sources and sanitation considered improved, how far the source of water is, how much time is needed to fetch the water, and whether women or men are usually in charge of water collection. With regard to the potential health effects of the solid fuels used for cooking, the demographic and health surveys provide valuable background information on types of fuels used for cooking and heating as well as ventilation factors such as the place of cooking or the type of stove used for cooking.

Population and housing censuses usually provide important background information related to households and population with poor access to water; and households and population using solid fuels for cooking. Although such data are not sex-disaggregated, they are nevertheless useful in assessing the work and health burden of women and men, especially when additional information on gender roles or health risks is available from other statistical or qualitative studies.

Epidemiological studies and health administrative sources are valuable in providing sex-disaggregated information on diseases associated with environmental factors such as unsafe water and sanitation and lack of hygiene, or indoor smoke from solid fuels. The health risks calculated based on these sources can be used in combination with background data provided by household surveys or population and housing censuses to estimate the burden of diseases associated with those environmental factors.

Other administrative sources may be used to obtain sex-disaggregated statistics on participation in environment-related education and decision-making. For example, school administrative sources can provide information on students enrolled and graduates by detailed field of study, in such a way that fields associated with the environment become visible. Some data on women and men holding decision-making positions in environment ministries, or in relevant national coordinating bodies may also be available from administrative sources.

Conceptual and measurement issues

Guidelines on systematic collection and compilation of statistics on gender and natural disasters are lacking at the international level. The availability and reliability of data on disaster occurrence and its effect on people is affected by constraints of time, funding and complexity of situation, as well as by the lack of standardized definitions and methodological tools of data collection.

Statistical sources to assess the capability of women and men to protect local natural resources are yet to be developed. The little existing information on access to environment-related practical knowledge and participation in the management of local natural resources such as water,

forests or biodiversity, comes from small studies or qualitative sources that are not necessarily representative for larger areas of a country or at the national level.

Table 2. 7 Gender statistics: Environment

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
Work burden due to poor infrastructure and living conditions			
Access to water	Persons involved in water collection	Sex and age, urban/rural areas; geographical areas; employment	Time use survey
	Time spent on water collection	Sex and age, urban/rural areas; geographical areas; employment	
	Households/population with access to water within 15 minutes	Urban/rural areas; geographical areas	Household survey
	Households/population without water on premises	Sex of person usually collecting water, urban/rural areas, geographical areas	
	Average time needed to collect water per trip	Urban/rural areas; geographical areas	
	Households/population with access to water in the building or within 200 metres	Urban/rural areas; geographical areas	Population and housing census
Access to firewood	Persons involved in firewood collection	Sex and age, urban/rural areas; geographical areas; employment; purpose of firewood collection	Time use survey
	Time spent on firewood collection	Sex and age, urban/rural areas; geographical areas; employment; purpose of firewood collection	
Harmful health effects due to environmental conditions			
Access to improved water and sanitation	Population with access to improved drinking water	Urban/rural areas, geographical areas	Household survey

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
	Population with access to improved sanitation	Urban/rural areas, geographical areas	
	Relative risk of infectious diarrhoea Other water- and sanitation-related diseases that may be taken into account: schistosomiasis, trachoma, ascariasis, trichuriasis and hookworm disease	Sex and age	Epidemiological studies and administrative health data
Indoor smoke from solid fuels	Households/population using solid fuels for cooking	Type of stove, indoor/outdoor cooking, urban/rural areas, geographical areas	Household survey
	Households/population using solid fuels for cooking	Urban/rural areas, geographical areas	Population and housing census
	Relative risks of lower respiratory infections, chronic obstructive pulmonary diseases, lung cancer	Sex and age	Epidemiological studies
The impact of natural disasters on women and men			
Deaths due to disasters	Deaths or excess deaths due to natural disasters	Sex, age and type of disaster	Population census, administrative health sources
Participation in environmental decision-making			
Local level of decision-making	Members of local NGOs or grass-roots organizations related to environment	Sex	Registers, household survey
	Access to practical knowledge on environment, agriculture, forestry and fishing	Sex	Household survey
Formal training in environment-related fields	Enrolment in tertiary education	Sex and detailed field of study	School administrative sources
	Graduates of tertiary education	Sex and detailed field of study	

Gender issues (sub-topics)	Statistics needed	Disaggregated by	Sources of data
High-level decision-making	Decision-making positions in environment ministries	Sex	Administrative sources
	Positions in national coordinating bodies related to environment	Sex	

References

Commission on the Status of Women, 2002. Agreed conclusions on environmental management and the mitigation of natural disasters. 46th session.
<http://www.un.org/womenwatch/daw/csw/agreedconclusions/Agreed%20conclusions%2046th%20session.pdf>.

Desai, Manish A., Sumi Mehta and Kirk R. Smith, 2004. Indoor smoke from solid fuels: assessing the environmental burden of disease at national and local levels. Geneva: World Health Organization. *Environmental Burden of Disease Series*, no. 4

Ezzati, M., A.D. Lopez, A. Rodgers and C.J.L. Murray, 2004. *Comparative Quantification of Health Risks. Global and Regional Burden of Diseases Attributable to Selected Major Risk Factors*. Geneva: WHO.

United Nations Environment Programme, 2007. Gender Mainstreaming Among Environment Ministries. Government Survey 2006. http://www.unep.org/civil_society/PDF_docs/UNEP-survey-reportJan-07.pdf.

United Nations, 2010. *The World's Women 2010. Trends and Statistics*. New York.

United Nations, 2011. *The Millennium Development Goals Report 2011*. Sales No. E.11.I.10.

World Health Organization, 2006. *Fuel for Life: Household Energy and Health*. Geneva: WHO.

World Health Organization, 2009. *Global Health Risks. Mortality and Burden of Disease Attributable to Selected Major Risks*. Geneva: WHO.

WHO and UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP), 2010. *Progress on Sanitation and Drinking Water. 2010 Update*. New York and Geneva: UNICEF and WHO.

Chapter 3 Integrating a gender perspective into data collection

Introduction

Gender mainstreaming into data collection goes beyond collecting the sex of the respondent (or household member, reference person, or head of the household, for that matter). What is required is a review of the data collection process in all its aspects that would potentially lead to a gender bias in the data - from setting out the objectives of the survey or census, to questionnaire or form design, sample design, selection and training of enumerators, interviewers and supervisors, data collection in the field, data coding and data editing.

The *objectives of a survey or census* are usually set out based on several factors: topics and policy issues needed to be addressed; review of previous data collections within the same programme; information available from other data sources; international statistical standards; country's institutional capacity for collecting data; financial and other resources available. The development of data collection objectives should be based on extensive consultations between data producers and data users such as data analysts, researchers, policy analysts, policy makers, and technical experts in administrative agencies.

Gender concerns should be integrated in the survey or census design through several elements. First, within the topics agreed to be covered by the survey or census, relevant gender issues (as discussed in chapter 2) should be addressed. Second, for each agreed topic, gender-specific conceptual and measurement issues (as discussed in chapter 2) should be taken into account. These two elements should be reflected in the questionnaire design, interviewer's manual, and training of the interviewers and supervisors. Third, the population or household samples used for data collection should enable the production of reliable statistics for women and men, in detail, or further disaggregated by other characteristics. Fourth, groups of population, households, agricultural holdings or economic units with distinct gender patterns should be covered when possible. These two elements should be reflected in the sample design of the survey. Fifth, data analysis and dissemination plans should include provisions for presentation of statistics disaggregated by sex and other characteristics.

From a gender perspective, the *questionnaire* should ensure that adequate concepts and classifications are used and properly converted into questions; and that the language, terms, or phrasing of the questions do not induce gender biases. In particular, it is recommended that:

- the questionnaire contains some short explanatory notes for the interviewer, and more elaborate instructions, explanations of terms, or, in some cases, definitions of key concepts, are provided in the interviewer's manual.

- probing questions are used in order to reduce under-reporting related to women, both to help respondents remember something that they may have forgotten and to help interviewers to properly code the answers of some questions.
- questions are written out in detail, with the reference period clearly specified. In some cases it may also be helpful to give examples or the complete list of categories of answers.
- the potential answers to questions should be categorized and pre-coded in such a way that answers related to women do not cluster into the “other” category.
- questions should be kept as short and simple as possible, free from ambiguity, using common every day terms, so that all respondents, regardless of their educational level, have no difficulty in understanding.
- questions should not influence answers or be leading. Keywords in the questions should not apply exclusively to one of the two sexes (for example, “housewife” or “fisherman”) and they should maintain their meaning when translated into major languages of a country.

It is important that the design process benefits from a wide range of data specialists, such as subject matter specialists, classification experts, field supervisors, data processing staff, and data analysts. In addition, field-testing should show whether both women and men understand the questions asked and whether potential under-reporting related to women or men is offset by the questionnaire design and use of the interviewer’s manual.

The *sample design* should ensure that reliable statistics are produced for both women and men, taking into account detailed categories of the characteristic measured. The sample should also allow the measurement of characteristics for particular subgroups of women and men and cross-analysis of various characteristics as specified in the tabulation or analysis plan of the survey. For example, it may be of interest that the social and economic characteristics of women and men are analysed by age group, rural/urban areas, or ethnicity group. Or, it may be of interest to cross-tabulate for women and for men, occupational characteristics with educational characteristics. The sample design should also cover as much as possible all types of groups of population, households, agricultural holdings or economic units known to have distinct gender patterns.

Selection and training of interviewers are an important element in obtaining adequate gender statistics. Gender-related measurement issues and gender stereotypes should be addressed in the manuals for interviewers and supervisors, and in their training. For example, the training should refer to the use of multiple respondents within the household when indirect reporting needs to be avoided (for instance in recording literacy) and when the information needs to be collected from household members that are most knowledgeable of the issue (for instance, household food consumption, number of children ever born). How to handle the interview environment when sensitive questions need to be asked, such as in the case of

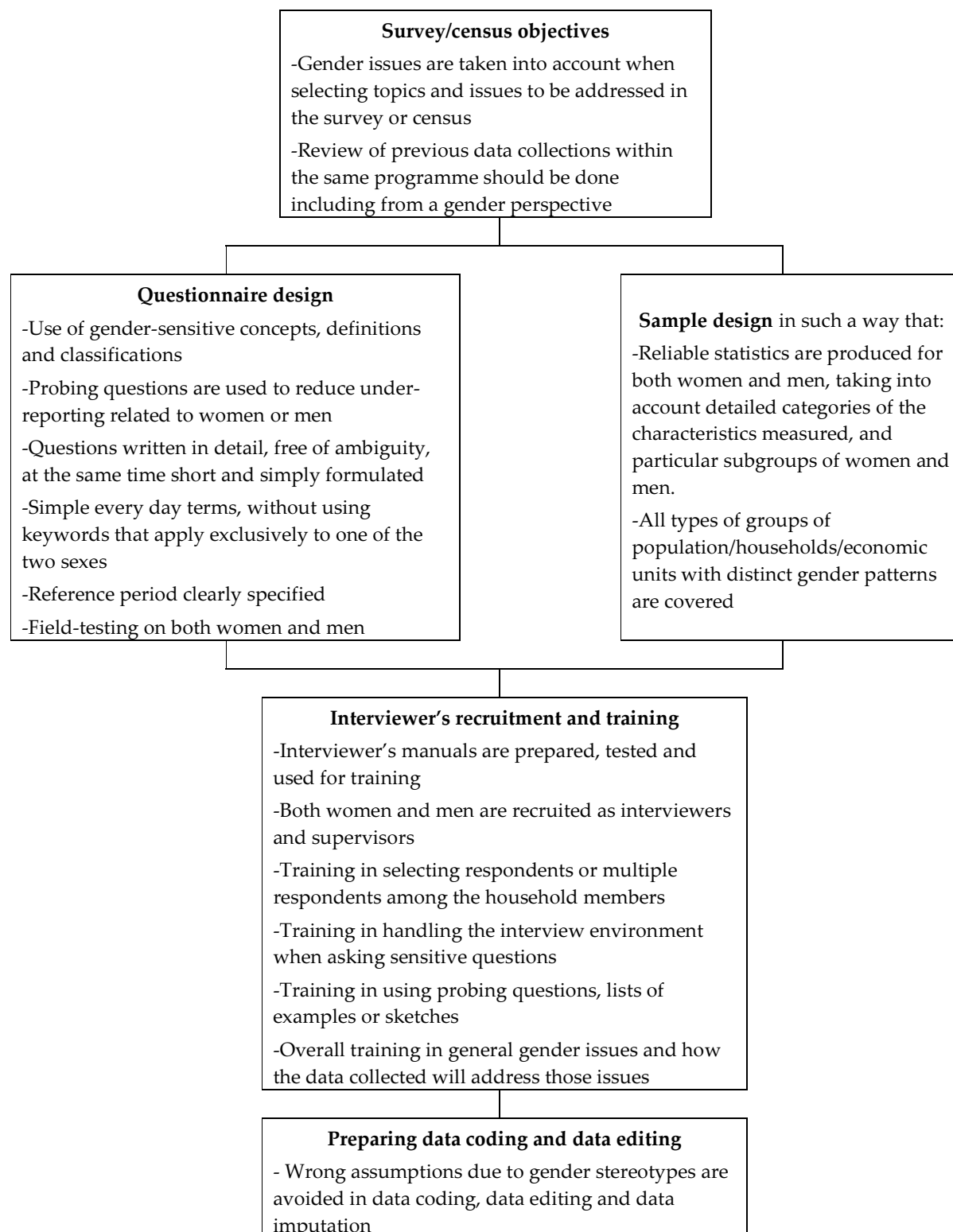
violence against women, or even in the case of women's earnings, should be also included in the training. Manuals should have elaborate explanations on questions that are more likely to lead to some under-reporting related to women or men (for example, economically active population or domestic violence) and instructions on how to use probing questions, examples and how to code the answers. Training should also emphasize understanding of general gender issues related to the topics covered by the survey or census and how the data collected will address those issues, so that they can cope with unanticipated issues and problems.

In general, it is important that the field staff is selected on the basis of competence, and that both women and men are recruited as interviewers or supervisors. Certain types of surveys – such as violence against women surveys – may need a more careful selection and more extensive training of interviewers. The sex of the interviewer may play an important part in obtaining certain types of information from the respondents. Women, for example, may be more likely to obtain information from other women on sensitive topics such as violence against women or reproductive health.

It is important that gender bias is not added into the data at the stage of *data coding and data editing*. Data coding and data editing are data transformations aiming to increase the internal consistency and the conceptual soundness of data. Whenever possible, pre-coded responses are used in the questionnaires, and some of the data coding can be done by the interviewers directly in the field, by coding the respondent's answer into the questionnaire. Other coding needs to be done by specialized coders using code books or computer programs, while some of the data errors may need to be fixed through data imputation. It is important that classification and subject matter specialists are involved in formulating rules for data coding, data editing and data imputation, and that wrong assumptions due to gender stereotypes are avoided.

The issues described above are general issues that need to be taken into account when mainstreaming gender into data collection. However, depending on the type of data collection, other issues may need to be considered. The following sections of the chapter go into the details of bringing a gender perspective into data collection in population and housing censuses, agricultural censuses and surveys, labour force surveys, and demographic and health surveys. Time use surveys and violence against women surveys are discussed in the last part of the chapter.

Chart 3. 1 Integration of gender concerns into data collection



References

Grosh, Margaret, and Paul Glewwe (ed), 2000. *Designing Household Survey Questionnaires for Developing Countries. Lessons from 15 years of the Living Standards Measurement Study*. World Bank, Washington DC.

Hedman, Birgitta, Francesca Perucci and Pehr Sundström, 1996. *Engendering Statistics. A Tool for Change*. Statistics Sweden.

United Nations, 2005. *Household Sample Survey in Developing and Transition Countries*. Department of Economic and Social Affairs, Statistics Division. Studies in Methods. Series F No.96. New York.

United Nations, 2008. *Principles and Recommendations for Population and Housing Censuses. Revision 2*. Department of Economic and Social Affairs, Statistics Division. Series M No.67/Rev.2. New York.

United Nations Economic Commission for Europe and World Bank Institute, 2010. *Developing Gender Statistics: A Practical Tool*. Geneva.

Population and housing census

A population census is defined as the total process of collecting, compiling, evaluating, analysing and publishing or otherwise disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country or in a well delimited part of a country. The unique feature of the census is to generate statistics on small areas and small population groups with no or minimum sampling errors. For small geographical areas or sub-populations, it may represent the only source of information for certain social, demographic and economic characteristics. The population census is also a primary source of benchmark statistics, covering not only the settled population but also homeless persons and nomadic groups. These benchmark statistics are essential in analysis, research, and sampling frame for sample surveys. (United Nation, 2008; paras 1.2-1.5)

Gender-based stereotypes can introduce serious biases in census data and the conclusions drawn from these data. There is much that can be done in the preparatory stages of the census to help minimize gender-based biases and this effort should be seen as part of the overall process of quality improvement of statistics. There are two broad types of preparatory activities: those related to census content and those related to census operations. Issues of census content, including what information is sought and how, the definitions and classifications used, and the manner in which databases and tabulations are specified, are important in generating data needed to examine questions of gender equity. With regard to census operations, particular attention will need to be given to the selection, training and supervision of the field staff. This involves ensuring that both men and women are recruited to the field staff (both as interviewers and supervisors) and that manuals and training materials cover gender bias issues just as they do other important sources of error. (United Nation, 2008; paras 1.216-1.218)

Censuses are conducted every 10 years or so in the majority of the countries in the world. For the 2010 round of the population and housing censuses, the United Nations prepared the second revision of the Principles and Recommendations for Population and Housing Censuses (United Nations, 2008). These standards and guidelines are discussed in this section of the chapter with particular focus on recommendations that are important from a gender perspective. Some countries already started a process of gender mainstreaming in the population censuses by revising their census questionnaires and manuals, by including specific gender issues in their training, or by changing media strategy to be more gender-inclusive. Examples based on their experience are provided.

Setting out the objectives of the census

The main objective of a population census is to provide a reliable basis for an accurate count of the population of a country at a point in time (United Nation, 2008, para 2.17). An accurate population count is essential for the efficient planning and delivery of services,

distribution of resources, defining of boundaries for electoral representation and policy development. Various population subgroups within a country need to be counted. These subgroups are typically based on geography, age and sex. There may also be a need to identify other populations such as the school population, working population, indigenous population or disadvantaged populations to enable more informed policy formation and better targeted service provision (United Nation, 2008; para 2.42).

Developing specific objectives for the population census is based on information derived from evaluating previous census experience, understanding user requirements, and assessing the resources necessary to produce the census results and meet the content and quality requirements in a cost-effective manner (United Nation, 2008; paras 1.14-1.19). Producer-user consultations are a key element in defining the objectives of a census. Such users should be from governmental departments, ministries, universities and other research institutions, the private sector, and other organizations (or individuals) representing the economic, social, educational and cultural life of a country. It is important that stakeholders concerned with gender equity are considered among the main groups of users and they are included among advisory committees and subject-matter groups so that the gender concerns are taken into account from the planning stage of the census.

Topics covered by population censuses

Population censuses collect data on geographical and internal migration characteristics; international migration characteristics; household and family characteristics; demographic and social characteristics; fertility and mortality; educational characteristics; economic characteristics; disability characteristics; and agriculture (United Nation, 2008). The “Principles and Recommendations for Population and Housing Censuses” recommends core topics and additional topics within all those areas. However, most population censuses will cover only some of those topics. The traditional population census is a complex and massive exercise and only some of the topics can be covered adequately within the period of time and resources available. The selection of topics will depend on users’ needs, alternative sources of data, the level of conceptual precision required to measure some of the topics and the demonstrated experience in collecting accurate data on such topics within the population census. More difficult to measure topics may have negative effects on the overall quality of the basic census results and they should be investigated on a sample basis within the census (using a long-form questionnaire) or left for specialised surveys (United Nations and International Labour Office, 2010).

The following paragraphs describe for each group of topics recommended to be collected in a population census, what is their gender-related relevance from a user perspective and what gender-specific measurement issues need to be addressed in the questionnaire design, operator’s manual and training of the operators. The topics are presented in the same order as in the “Principles and Recommendations for Population and Housing Censuses” (United Nations, 2008).

Geographical and internal migration characteristics

Core topics:

- Place of usual residence
- Place where present at time of census
- Place of birth
- Duration of residence
- Place of previous residence
- Place of residence at a specified date in the past
- Total population
- Locality
- Urban and rural areas

Gender-related relevance

- The number of usual residents disaggregated by sex, age and other variables can be used to identify groups of population in need of specific services. Examples of such groups are: older women and men living alone, women and men with disability.
- Information on the place of birth, duration of residence, place of previous residence or, alternatively, place of residence at a specified date in the past, disaggregated by sex, age and other characteristics is a major input to the development of policies relating to migration and issues of service delivery to women and men migrants.
- Four types of population groups that may be covered only in a population census (although they may be excluded from counting in some cases) may be interesting from a gender point of view: homeless; nomads; persons living in areas to which access is difficult; refugees in camps. Such groups of population may have gender patterns distinct from the main population.
- Urban and rural areas usually provide different ways of life, standard of living, and access to information, communication and technology. Women's and men's roles and expectations, educational and economic opportunities usually vary between the two types of residency.

[Box counting women and men in post-disaster and post-conflict censuses, including example of the 2005 Sri Lanka census on the persons and buildings affected by the 2004 tsunami]

International migration characteristics

Core topics:

- Country of birth
- Citizenship
- Year or period of arrival

Gender-related relevance

- Population censuses are the best source for collecting data on the immigrant stock. The country of birth question and the country of citizenship question give the foreign-born population and the group of foreigners living in the country respectively. The size of immigrant stock and its characteristics (sex, age, marital status, or education and economic characteristics, for example) are a major input to the development of policies relating to migration, social integration, and service delivery to women and men migrants.

Household and family characteristics

Core topics:

- Relationship to head or other reference member of household
- Household and family composition

Additional topic:

- Household and family status

Gender-related relevance

- Identification of the household members, their relationship to head or other reference member of household and their grouping in family nuclei are the basis for distinguishing different types of households. When sex, age and marital status of the household members are also taken into account, it is possible to identify certain types of households such as: older female and male one-person households; nuclear households of a lone mother with young children, or a lone father with children. Household and family characteristics combined with demographic characteristics of the household members can also be used in identification of a person's household and family status. For example, lone mothers and lone fathers can be identified even when they are part of extended or composite households. The information on all these living arrangements is an important input for development of welfare and poverty reduction policies.

Measurement issues

- It is important that countries specify in their census design whether the “housekeeping” or the “household-dwelling” concept of a *private household* has to be used. Usually countries use the “housekeeping” concept: a household is understood as persons living together who make common provision for food or other essentials for living. By comparison, when using the “household-dwelling” concept, a household is understood as all persons living in a housing unit.
- Countries should specify in their census design whether a *household reference person* or a *household head* is used to list all the household members. They should also clearly specify the criteria to be used to identify the reference person or the household head as a strategy for avoiding sex-based biases. Training materials and instructions should prevent the use of the assumption that women can be head of the household only when there are no adult males in the household. In countries where spouses are considered equal in household authority and responsibility and may share economic support of the household, (a) a reference member with no implication of headship may be chosen, or (b) provision may be made for designation of joint headship.
- *Recording of the members of the household should avoid starting with male members and continuing with female members, in order to reduce the undercounting of women.* The Census P&R2008 recommends that members of the household should be listed according to their family nucleus, if family nuclei are a topic of interest. **Example of India** (UNFPA, 2004): Traditional approach in India in recording household members was to start with the head of the household, then to enumerate male members and afterwards the female members of the household. The new method involved in the 2001 Census was to start with the head of the household and continue with others according to their age.

Demographic and social characteristics

Core topics:

- Sex
- Age
- Marital status

Additional topics:

- Religion
- Language

- Ethnicity
- Indigenous peoples

Gender-related relevance

- Sex, together with age, represents the most basic type of demographic information that has to be collected for each individual in the population census. Of all the topics investigated in population censuses, sex and age are more frequently cross-classified with other characteristics of the population than are any other topics.
- Sex disaggregation of data is a fundamental requirement for gender statistics. There are variations by sex for many socio-economic and demographic characteristics that could be collected through a census, such as education, economic activity, migration, disability or living arrangements.
- Marital status, usually defined in relation to the marriage laws or customs of the countries, is a basic demographic information necessary to assess particular forms of living arrangements (such as consensual unions, but also widowhood and polygamy), and certain marriage practices (such as child marriage). There are implications in terms of the economic security and wellbeing of women, men and children, that need to be taken into account in drawing family policies and measures.
- Questions on religion, ethnicity and indigenous people are sensitive questions and their inclusion in the census should be carefully considered. The information provided disaggregated by sex and other characteristics such as education and economic status are important input for diversity and integration policies.

Measurement issues

- The 2008 P&R for Population and Housing Censuses recommends that at least five categories of *marital status* can be identified for each individual in relation to the marriage laws or customs of the country: (a) single or never married; (b) married; (c) widowed and not remarried; (d) divorced and not remarried; (e) married but separated – legally or de facto separated. In some countries, other categories may be taken into account: customary unions, such as registered partnerships and consensual unions, which are legal and binding under law; persons who are contractually married but not yet living together as husband and wife. Some countries may distinguish between formal marriages and de facto unions; and between persons legally separated and those legally divorced. The collection of additional information related to polygamous or polyandrous marital status may be needed in some countries.

Fertility and mortality

Core topics

- Children ever born
- Children surviving
- Date of birth of last child born
- Births in the past 12 months
- Deaths among children born in the past 12 months
- Household deaths in the past 12 months

Additional topics

- Age, date or duration of first marriage
- Age of mother at birth of first child
- Maternal or paternal orphanhood

Gender-related relevance

- The investigation of fertility and mortality in population censuses is particularly important in countries lacking a timely and reliable system of vital statistics because of the opportunity the data provide for estimating vital rates that would not otherwise be available. Information on fertility and mortality is essential for understanding population dynamics, for drawing population and health policies and measures, and for planning future delivery of basic services.
- In countries that lack satisfactory continuous death statistics from civil registration, information on household deaths in the past 12 months by sex of deceased and age at death may be used to estimate the level and pattern of mortality for women and men. Also, by asking follow-up questions concerning cause of death, countries may be able to obtain some estimates of maternal mortality.
- Information on the number of children ever born by women should be collected in the census even in countries with reliable vital registration of births. This topic can be useful for assessing the completeness of the registration system and for estimating levels of lifetime fertility for older cohorts of women.
- When age at first marriage and age of mother at the time of first birth are included in the census questionnaire, additional information on child marriage and adolescent births can be obtained and use in child policies and reproductive health policies.

Measurement issues

- A more complete and accurate reporting of *children ever born* and *children surviving* is obtained when the information is collected separately for each sex.

- It is difficult to obtain accurate responses for questions on *deaths* and this may result in faulty data. The extent to which adult mortality can be adequately measured from population census data, particularly from the indirect approaches to mortality estimation such as the orphanhood method, is still uncertain.
- As far as possible, *efforts should be made to obtain information on fertility, child mortality (or survival) and marriage directly from the woman or mother involved*, because she is more likely to recall correctly the details of her fertility, the mortality of her offspring and her marital experiences than any other member of the household.

Educational characteristics

Core topics:

- Literacy
- School attendance
- Educational attainment

Additional topic

- Field of education and educational qualifications

Gender-related relevance

- Data on literacy, school attendance and educational attainment disaggregated by sex, age and geographical units are crucial for understanding gender disparities in access to education across a country and changes in education gender gaps by cohort. Such information is the basis for development of educational policies.

Measurement issues

- Data on *school attendance, educational attainment and literacy status* should be collected and tabulated separately and independently of each other, without any assumption of linkages between them. In operational terms, this means systematically inquiring about the literacy status of each household member irrespective of school attendance or highest grade or level completed.
- UNESCO recommends that *literacy tests* should be administered, in order to verify, as well as improve, the quality of literacy data. Nevertheless, administering a literacy test to all household members in the course of enumeration may prove impractical and affect participation, therefore limiting the utility of the results. Countries have regularly used simple self-assessment questions within a census to provide an indication of literacy rates at the small area level (United Nation, 2008). When assessment is done by a third person

(the reference person or the head of household, for example) the literacy level for women and children may be overestimated (UNESCO Institute for Statistics, 2008).

Economic characteristics¹

Core topics

- Activity status
- Occupation
- Industry
- Status in employment

Additional topics

- Time worked
- Income

Gender-related relevance

- Statistics on the size and composition of the economically active population and the population that is not economically active are fundamental to formulating almost all economic and social policies and related planning and research. Statistics on status in employment and occupation disaggregated by sex and age are very important for understanding the structure and functioning of the labour market and as a basis for labour-market policy formulation and implementation.

Measurement issues

- *The proper identification of the activities that are economic may be helped by the use of activity lists, training and instructions included in the enumerator's manual.* It is advisable for countries to develop an extensive list of own-account production activities considered to be within the SNA production boundary, so as to ensure that those involved in such activities are correctly classified as economically active. In principle, the production of all goods falls within the SNA production boundary, irrespective of whether the goods are intended for supply to other units or for the producers' own final use. In practice, however, the production of a good for own final use within households should be recorded only if the amount of the good produced by households for their own final use is believed to be quantitatively important in relation to the total supply of that good in a

¹ This section was elaborated based on the UN&ILO 2010 *Measuring the Economically Active in Population Censuses. A Handbook* as well as the 2008 *P&R for Population and Housing Censuses*.

country. According to the Thirteenth International Conference of Labour Statisticians, persons engaged in the production of goods for own final use within the same household should be considered as economically active only if such production comprises an important contribution to the total consumption of the household.

- *Lists of own-account production activities* could include, for example, production of agricultural products and their subsequent storage; production of other primary products such as mining of salt, cutting of peat, supply of water; processing of agricultural products (the preparation of meals for own consumption is excluded); and other kinds of processing, such as weaving of cloth, dressmaking and tailoring; production of footwear, pottery, utensils or durables; making of furniture or furnishings; and major renovations, extensions to dwellings, replastering of walls or re-roofing by owners of owner-occupied dwellings. For example, in the preparation for the 2001 census in India, 32 sketches showing different types of women's work that is not usually reported were included in the operator's manual.
- *There is a high risk of misclassifying women as homemakers when only basic questions are asked.* Better results, showing higher proportions of women as economically active, have been recorded in cases when further probing questions were used during an interview or more detailed questions were included in a self-administered questionnaire, to ensure that those homemakers involved in some typically misclassified economic activities were assigned to their correct economic activity status.
- Training of enumerators should highlight likely *sources of sex biases leading to underestimation of women's participation in economic activities*: (a) incomplete coverage of unremunerated economic activities; (b) failure of respondents and enumerators to take account of women's multiple activities, some economic and some non-economic, and (c) the tendency to automatically enter women as homemakers, particularly if the women are married. Similar guidance could also be given in the instructions for a self-administered questionnaire.
- Although the *usual activity* approach in measuring economically active population may reflect better the seasonal fluctuations of activities often associated with women's work, it may be more difficult to implement in a population census. The approach implies a bigger burden and it is subject to more recall errors. Over a period as long as one year, all economic activities held by a person as well as the time spent in each of those activities would need to be identified by the respondents, along with periods of unemployment and non activity. In fact, most countries measure current activity (that is, they use a short reference period, such as a week) in their population census. A relatively short reference period, close to the time of the interview, minimizes memory lapses among the respondents. It is also easier to measure the characteristics of economic activity for the short reference period, as fewer changes usually occur during that period than during a longer one. The P&R for the Population and Housing Censuses recommends that countries using the labour-force concept (current activity) should endeavour to obtain

supplementary data covering at least a count of persons who were usually economically active during a specified 12-month period, and countries using the concept of usual activity should endeavour to obtain supplementary data covering at least the size of the labour force during a one-week or one-day reference period.

- The questions on *occupation* should seek full details, including (a) the title of the job and (b) a statement about the main tasks and duties performed. This type of information will allow detailed, reliable and effective coding at the stage of data coding and editing. The word “occupation” can be misleading, in some circumstances, and may best be either left out of actual questions on the topic or supplemented with a more easily understood word. For developing countries where translation in the field is very common, the terminology being used by interviewers in the local language should be carefully checked during testing and training periods.
- Although *income* is an important topic for understanding economic gender gaps, it is difficult to collect reliable information on the topic in the population census. The value of home production and the value of income paid in kind, are extremely important components of the total income for individuals and households in most developing countries, but measurement is extremely difficult and complex even in household surveys. Even when confined to cash income, the collection of income data in a population census may present special problems in terms of respondent’s burden and response errors. Nevertheless, some developed countries have a long history of collecting detailed cash income information at the individual level.
- Similarly, although *time-related underemployment*, *informal sector* and *informal employment* may be relevant from a gender point of view, there is limited experience with such complex topics in population censuses. More testing may be needed before deciding whether it is possible and worthwhile to include them in the census.

Disability characteristics

For countries that do not have regular special population based disability surveys or disability modules in ongoing surveys, the census can be the only source of information on the frequency and distribution of disability and functioning in the population at national, regional and local levels.

Statistics on women and men who experience limitations in basic activity functioning such as walking, seeing, hearing, and cognition (as collected in the census) are important input for the development of specific programs and policies for service provision, and the evaluation of these programs and services. Also, disability statistics disaggregated by sex, age and educational and economic characteristics provide a basis for assessing the outcome of anti-discrimination laws and policies.

Agriculture

Countries may collect data on involvement in agricultural activities at household or individual level in order to facilitate the preparation of the frame of agricultural holdings in the household sector, for a subsequent agricultural census. At household level, the information collected refers to whether any member of the household is engaged in own-account agricultural production activities at their place of usual residence or elsewhere. Some countries may also add a question on the number of males and females involved in own-account agricultural production (for example, the 2010 census of Ghana). At individual level, information is collected to identify persons involved in agricultural activities during a longer period, such as a year. In this case, information on occupation and status in employment of all agricultural jobs is collected. These data, disaggregated by sex and age, may also be used to better understand the work of women and men in agriculture.

Topics covered by housing censuses

The topics covered by the housing censuses are relevant for understanding the living conditions with impact on women and men's lives. Several topics are important in particular. First, when population census and housing census are linked, information can be gathered on the number of women and men (as well as their characteristics) living in selected *types of living quarters* such as: retirement homes and homes for elderly; orphanages; refugee camps; camps for internally displaced people.

Second, housing census may be used to improve the knowledge of women's and men's *ownership of housing property*. For example, in the 2001 census in Nepal, for the self-owned properties, a question was added whether owned by female or male members of the household (UNFPA, 2004).

Third, some of the questions covered in the housing census provide important background information for understanding the work and health burden of women or men. For example, women are in charge of water collection more often than men (United Nations, 2010). Census data on *water supply system* and *main source of drinking water* will provide information on the number of households with lack of access to water within the building or within 200 metres. These are households where mainly women have an additional burden of work. Also, women are more likely than men to cook and therefore be exposed to indoor smoke (United Nations, 2010). Census data on *fuels used for cooking* will provide information on the number of households that use solid fuels for cooking. These are households where women are more likely than men to develop acute respiratory infections, obstructive pulmonary disease and lung cancer.

Questionnaire design, preparation of manuals and census tests

Questionnaire design

Among the many factors that should be taken into account in designing the questionnaire are the method of enumeration, the type of questionnaire, the data to be collected, the most

suitable form and arrangement of the questions and the processing techniques to be employed. The internal specialists responsible for this task include the dissemination team, subject matter specialists, the team responsible for development of the processing system, and the field operations team. It is important that all these key internal stakeholders are involved in the questionnaire design and that there is ongoing coordination between them. Also it is important that the members of the team are knowledgeable of gender-specific measurement issues related to each of the topics selected to be included in the questionnaire.

The questions should be designed keeping in mind the possible reactions of the respondents. It is important that questions are free from ambiguity, avoiding technical terms, and short. They should be easily understood by people from all categories of education and cultural background. Moreover, questions should not be offensive; in many cases this can be avoided by excluding extremely sensitive topics from the census questionnaire. Pre-coded response categories should be exhaustive, and explanatory notes should be minimal. The use of skip in the questionnaire should also be minimal. These issues should be carefully assessed during the field-testing of the questionnaire.

[Examples of questions from census questionnaires – to be included and discussed]

Manuals

Instruction/training manuals should focus on the practical and operational issues and on explaining the meaning of the questions that have been formulated, rather than complex concepts and definitions. Census staff has usually less experience with concepts regarding particular areas. Reference period for questions and skip patterns to be followed should also be covered in the manual. Gender-related measurement issues should be reflected in descriptive examples and illustrated sketches. It is important that all the examples given in the manual or during training exercises are free of gender-based biases or other stereotypes related to the characteristics measured.

[Examples of integration of gender issues in the manuals - to be included and discussed]

Census tests

To yield full benefits, tests should be employed for all stages of the census, including enumeration, processing and evaluation of results. The first kind of tests carried out during census preparations are questionnaire tests. Their purpose is to test the suitability of intended census questions, including their formulation and the instructions provided, as well as the suitability of the questionnaire design. It is practical to carry out questionnaire tests on a small scale in several purposively selected places, and cover female and male respondents with different social background. Because they are relatively inexpensive,

repeated rounds of questionnaire tests may be carried out until a satisfactory questionnaire has been obtained. (United Nation, 2008; paras 1.193 -1.194)

Training of census staff

It is important that each training programme is made available in a manual form and distributed to the census organizers and training instructors. A great number of census instructors are usually engaged in training and such a manual would contribute to the efficiency and uniformity of training. Simple audio-visual aids and technology for provision of training at distant locations can also be used to make the training more effective and uniform throughout the country (United Nation, 2008; para1.214). It is important that both women and men are selected as training instructors and trainers presented in the audio-visual materials.

Training materials and examples must be simple and aimed at bringing all enumerators up to a minimum level of competence. In a census operation, enumerators are not expected to have a high level of understanding of concepts and definitions, primarily due to the limited training they undergo, a function of the large number of enumerators employed in a census and the cost of their training. Thus they have to be trained to communicate the meaning of the questions rather than the underlying concepts that led to their formulation. It is important that fieldworkers understand the full range of possible replies that can be given to each question and the type of information that those questions are designed to obtain. (United Nations and International Labour Office, 2010)

Training should ensure that gender, as well as other social biases are minimized. Training examples need to be reviewed so as not to foster gender-based or other stereotypes related to the characteristics measured. Training should also provide guidelines for underreporting or misreporting related to women and men. Special attention should be dedicated to issues such as: the criteria to identify the household head; recording of the members of the household; selecting women as respondents when information on children ever born and children surviving is needed; use of economic activity lists, including lists of own-account productive activities; use of probing questions.

Census advertising

Publicity for the census is an important task in the census operation, and planning for it should start as soon as the census is authorized. The census advertising aims to dissipate any anxiety regarding the purposes of the census; explain the reasons for the various questions in the questionnaire; and offer some guidance as how these questions should be answered. The publicity campaign may also be an important tool for increasing the completeness of census coverage, particularly among hard-to-enumerate groups. (United Nation, 2008; para 1.115)

It is important that the media campaign is directed to all sections of the country and all segments of the population through the use of all available publicity media. A number of specialized campaigns aimed at specific segments of the population may also be considered. (United Nation, 2008; para 1.115) Women may be considered one of those primary targets of the advertising. For example, women, girls and their contribution to the economy may become one of the subjects of the media campaign, especially in countries where a lot of underreporting is related to women.

Example of India: “The 2001 census logo, conceived as the flag-bearer for the Census of India, had a woman in front, leading the march into 21st century India; a woman enumerator enumerated the President of India, symbolically the first person to be counted in the census. This photograph, which made headlines in both electronic and print media, had the very positive effect of making women visible to the nation in the conduct of the census”. (UNFPA, 2004)

Post-enumeration survey and re-interview survey

Many countries recognize the need to evaluate the overall quality of their census results. It is universally accepted that a population census is not perfect and that errors can and do occur at all stages of the census operation. Errors in the census results are classified into two general categories—coverage errors and content errors. Coverage errors are the errors that arise due to omissions or duplications of persons or housing units in the census enumeration. Content errors are errors that arise in the incorrect reporting or recording of the characteristics of persons, households and housing units enumerated in the census. (United Nation, 2008; paras 1.380-1.381)

The content errors are most interesting from a gender perspective. In general, content errors may be caused by poorly phrased questions or instructions, or enumerator errors in phrasing the census questions; inability or misunderstanding on the part of respondents in respect of answering specific items; deliberate misreporting; errors due to proxy response; coding or data entry mistakes, and so forth (United Nation, 2008; paras 1.380-1.381). It is important to evaluate whether those content errors are associated with gender-specific measurement issues. The necessary information can be provided by both post-enumeration surveys and re-interview surveys.

References

Hedman, Birgitta, Francesca Perucci and Pehr Sundström, 1996. *Engendering Statistics. A Tool for Change*. Statistics Sweden.

UNESCO Institute for Statistics, 2008. *International Literacy Statistics: A Review of Concepts, Methodology and Current Data*. Montreal.

UNFPA Country Technical Services Team for South and West Asia, 2004. Report of the Regional Knowledge Sharing Workshop on Engendering Population Census in South and West Asia. Kathmandu, Nepal, 8-10 March.

United Nations, 2008. *Principles and Recommendations for Population and Housing Censuses. Revision 2.* Department of Economic and Social Affairs, Statistics Division. Series M No.67/Rev.2. New York.

United Nations and International Labour Office, 2010. *Measuring the Economically Active in Population Censuses: A Handbook.* Studies in Methods, Series F, No.102, New York.

United Nations Economic Commission for Europe and World Bank Institute, 2010. *Developing Gender Statistics: A Practical Tool.* Geneva.

Labour force survey

The labour force survey is a household-based sample survey that is designed to provide estimates of the labour force and its characteristics (Husmanns and others, 1990). Labour force surveys are conducted in many countries and are particularly important when administrative records are non-existent or incomplete and where establishment surveys are expensive and difficult to conduct. Some countries may not have a dedicated labour force survey, but a labour force module attached to other surveys such as living standard surveys or household income and expenditure survey.

Household sample surveys are the most flexible of all data collection instruments on labour force and its characteristics, and therefore most valuable from a gender perspective (Husmanns and others, 1990; Mata-Greenwood 2003). First, they can cover a larger range of topics. Information on employment, unemployment, occupation or status in employment can be collected at the same time with information on education and training, income, or household and family. This combined information is useful for understanding the participation of women and men in the labour force. Second, the surveys can accommodate more questions, thus allowing more precise measurement of the economic characteristics, based on international standards on concepts, definitions and classifications. In fact, some of the criteria specified in the international standards that are crucial for correct reporting of women's and men's economic activity, can only be implemented through household surveys (Husmanns and others, 1990; Mata-Greenwood, 2003).

Survey objectives

Labour force statistics disaggregated by sex, age group, income, occupational categories and branches of economic activity provide essential information for design and evaluation of overall government policies aimed at (a) promoting and creating employment; (b) alleviation of poverty and redistribution of income; and (c) equal opportunity and treatment in employment (Husmanns and others, 1990). Trend data in employment and unemployment for particular subgroups of population (such as women and men, or young persons and older workers) are also crucial for assessing the social effects of government employment policies or structural adjustment policies.

Labour force surveys may be conducted frequently on a recurrent basis and provide data for current purposes, or they may be conducted at longer intervals and provide benchmark data and data necessary for structural in-depth analysis (Husmanns and others, 1990). It is important that a gender perspective is taken into account in both approaches, although, more gender-related comprehensive information may be obtained in the second approach. In the recurrent programme, the focus is on monitoring adequately trends and seasonal variations of the currently active population, employed and unemployed. In developed countries, a continuous survey may provide statistics on labour force monthly or quarterly.

In developing countries, however, such surveys may be collected less often. Still, it is important that countries collect statistics for both agricultural peak and slack seasons, as the seasonal variations in labour force participation are different for women and men.

The non-current statistics programme should provide comprehensive information on the economically active population by industry, occupation, status in employment, on activity patterns over the year, work experience, multiple job-holding, education and training, hours worked, and income from employment (Husmanns and others, 1990). Other particular topics, such as time use or informal employment, may also be included, along with demographic and household and family characteristics. These comprehensive surveys may be conducted once every few years. The benchmark statistics obtained as well as the possibility of in-depth analysis are particularly valuable for understanding gender issues.

Topics covered

Labour force surveys usually cover the following topics: the economically active population; employment; unemployment; hours of work; industry (branch of economic activity); occupation; and status in employment. A wider range of gender relevant information can also be generated by attaching to labour force surveys additional modules on income, informal employment, time use, or modules on work-family balance.

Economically active population

The measurement of the economically active population involves two basic considerations that are relevant from a gender perspective: (a) the distinction between economic activities and non-economic activities; and (b) the use of a short reference period or a long reference period in applying that distinction. A short reference period for the engagement in economic activity is characteristic to the “currently active population” or “labour force” approach; a long reference period is characteristic to the “usually active population” approach.

According to international standards, the distinction between economic activities and non-economic activities should be based on the general production boundary of the SNA (system of national accounts). Economic activities cover market work and non-market work involved in producing goods for own consumption, as specified in the 1993 revision of the SNA. However, respondents’ and interviewers’ understanding of the notion of “work” and “economic activity” may not be as encompassing as the definition envisaged by international standards (Husmanns and others, 1990). The forms of work that are more likely to be underreported are those performed for own consumption and carried out at home. As these forms of work are commonly performed by women, their participation in economic activity is more likely to be underestimated. Cultural perceptions of women as housewives and the failure of the proxy respondents or the interviewers to take into account the multiple activities of women also contribute to the underreporting of women’s economic activity.

Underreporting of economic activity may be reduced by avoiding keywords such as “economic activity” and by supplementing the general leading question on work performed with probing questions referring to specific activities (see questionnaire flow chart for employment). Where non-standard work situations are widespread and varied, probing questions may be formulated in terms of activity lists. Those activity lists should cover activities commonly carried out in the country by women and men and suspected as going unreported without probing (Husmanns and others, 1990). Training of the interviewers and clear explanations of the scope of economic activity in the instruction manual are also needed.

The economically active population is measured based on the current activity status or usual activity status. The most widely used is the *current activity* measurement. It is based on a short reference period, such as one week or one day, and it provides a snapshot of the economically active population at a given point in time (Husmanns and others, 1990). The *usual activity* measurement is based on a longer reference period, such as one year, and is particularly useful in developing countries with significant seasonal variation of the labour force (Husmanns and others, 1990). For certain groups of population involved in seasonal activities, the employment pattern obtained based on a current activity approach is going to be different than the employment pattern based on a usual activity approach. In particular, women are more likely than men to be involved in seasonal activities such as those in agriculture, and their dominant pattern of activities over the year may differ from the current situation at given points of time during the year. The distinction becomes clearer when the measurement of usual activity is combined with the measurement of current activity in the same survey. Retrospective measurement over a long reference period such as a year has limitations; however, a month by month recall with probing questions and memory cues may be used to reduce the recall errors (Husmanns and others, 1990).

Employment and hours of work

Employment and unemployment are the two categories of the currently active population (labour force). *Employment* includes persons at work for at least one hour in a short reference period of one week or one day, including persons temporarily absent from work. The measurement of employment has to ensure that a) all economic activities as defined by the SNA production boundary are reported, by using probing questions and activity lists, as explained previously; and b) persons temporarily absent from work are included, by using a question or list of reasons of absence (see questionnaire flow chart for employment).

Chart 3.2 Questionnaire flow chart for employment, based on Husmanns and others, 1990

Additional data may be collected on *hours of work* (actual or usual), in order to identify within the employed population subgroups with different degrees of labour force

participation (Husmanns and others, 1990). These data are the basis for identifying the visible underemployment and for distinguishing between full-time, part-time and other working arrangements for women and men (Husmanns and others, 1990). When visible underemployment is of interest, additional questions may be asked on reasons for working less hours than normal; willingness and availability for additional work; and kind of additional work sought or available (see Husmanns and others, 1990).

Unemployment

Unemployment is defined based on three main criteria that need to be satisfied simultaneously: persons who during the reference period were a) “without work”; b) “currently available for work”; and c) “seeking work”. The criterion “without work” is used to differentiate between employed on one side and unemployed or not currently active on other side (see the questionnaire flow chart for employment). Further, the criteria “currently available for work” and “seeking work” are used to differentiate between the unemployed and not currently active population (see questionnaire flow chart for unemployment).

Chart 3.3 Questionnaire flow chart for unemployment, based on Husmanns and others, 1990

Questions on steps taken to seek work, reasons for not seeking work and reasons for not being available for work are necessary to properly identify women and men unemployed; certain groups such as discouraged workers or seasonal workers that may be more often associated with women or men; and gender-specific obstacles in labour force participation. These questions and detailed categories of responses are particularly important in the developing countries where the labour market is relatively unorganized or of limited scope and the conventional means of seeking employment are of limited relevance. Such countries may choose to use a relaxed criterion of seeking work. The relaxation of the seeking work criterion may have more effect on the unemployment classification of women than of men (Husmanns and others, 1990). For example, “discouraged workers” are those persons who are available for work and want a job, but who gave up searching because they believe they cannot find a job. More women than men may be found in this situation. Under a strict “seeking work” criterion, “discouraged workers” should be considered “not active”, while under the relaxed criterion, they should be considered “unemployed”. Even when the standard definition of unemployment is adopted, this category of workers should be identified separately, among the population not currently active (Husmanns and others, 1990). Similar considerations should be taken into account when classifying seasonal workers. During the off-season, these persons are available for work but not seeking work while waiting for the busy season (Husmanns and others, 1990).

Major economic classifications: industry, occupation, status in employment

Data on industry, occupation and status in employment disaggregated by sex provide information on the conditions of work for women and men and their changes over time. These data are the basis for the study of the structure of the economically active population and development of human resources. It is recommended that the sequence – industry, occupation, status in employment – is followed in the questionnaires, unless there are strong arguments against it (Husmanns and others, 1990).

The *industry* (the branch of economic activity) and *occupation* refer to the main job of the person, often defined as the job where the person spends most time working, or, sometimes, the job that provides the highest income from employment. The industry is identified based on a description of the characteristics of the economic unit in which the person works: kind of goods or services produced at the place of work, the types of activities carried out by the economic establishment. The occupation is identified based on the job title and a description of the tasks and duties performed by the person in the job. The textual responses obtained from the questions on industry and occupation are coded after the field information has been gathered and this activity constitutes a major task of data processing. The framework used for coding industries is that of the International Standard Industrial Classification of all Economic Activities (ISIC). The framework used for coding occupation is that of the International Standard Classification of Occupations (ISCO). Coding involves classification and subject-matter specialists at the planning stage and specially trained coders at the operational stage. It is important that wrong assumptions due to gender stereotypes are avoided at the stage when rules for data coding, data editing or data imputation are formulated.

The *status in employment* is categorized based on the type of contract of employment, economic risk, and authority over establishment or other workers (International Labour Office, 1993). A worker may have more than one job during the reference period and, as a consequence, she or he may have more than one status in employment. For example, a woman or a man may work as an employee in one job and as an own-account worker in another. While status in employment should be measured for the main job (the same main job used for industry an occupation), it may also be useful, for analytical purposes, to collect information on status in employment for more than one job (Husmanns and others, 1990).

The information on status in employment is obtained through one question – such as “Did you work as . . .?”; “Were you a . . .?”; or “What is your employment status in your present job?” – followed by a list of precoded answer categories (Husmanns and others, 1990). The number and types of the precoded answer categories to the question on status in employment may vary. In addition to the five broad categories recommended by the International Classification of Status in Employment (ICSE), it may be necessary to include other categories, either as separate groups or as subgroups. It is important that categories of status in employment where women or men are overrepresented are considered. For example, women may be overrepresented among the “subsistence workers”, “casual

workers”, “short-term workers”, or “seasonal workers”; men may be overrepresented among the “owner-managers of incorporated enterprises” or “employees with stable contracts”. Additional questions may be needed to identify those categories of workers.

Training and instructions included in the interviewer’s manuals should prevent misclassification of status in employment due to gender bias. For example, when a household enterprise is operated jointly by a couple, the appropriate statistical treatment would be to consider both persons as employers or both as own-account workers rather than considering one person as employer or own-account worker and the other as contributing family worker (Husmanns and others, 1990; Mata-Greenwood, 2003).

Modules attached to the labour force surveys

A wider range of gender relevant information can also be generated by attaching additional modules to the labour force surveys. Additional modules may refer, for example, to income, informal employment, time use, or work-family balance. However, countries need to consider carefully the length and complexity of the interview, the increased respondent burden, and increased work on data processing and data analysis. Countries may choose, for example, to integrate a different module within each round of the ongoing labour force survey.

Income. Employment-related income consists of payments in cash, in kind or in services as a result of individual’s current or former involvement in paid or self-employment jobs (International Labour Office, 1998). Data on employment-related income provides crucial information for the analysis of income-generating capacity of different economic activities; income access and underemployment; and economic well-being of women and men. Depending of the objectives set, the information on employment income may need to be collected in relation to the job (when interested in the income-generating capacity of economic activity) or in relation to the individual (when interested in women and men’s access to income and their well-being). Different reference periods may also apply. In the later case, the focus may be on the past-year employment experience and income from the jobs held during the period, main activities as well as other activities included. Income should be collected separated for each component of payment and, as much as possible, directly from the person concerned. Additional information related to household characteristics and household income may be needed.

Informal employment. Informal employment is defined as the total number of informal jobs whether carried out in formal sector enterprises, informal sector enterprises or households during a given period (International Labour Office, 2003). The measurement of informal employment involves a combination of several questions (Husmanns, 2004):

- (a) a question on status in employment. Contributing family workers will be considered in informal employment, due to the fact that they do not have explicit written contracts

of employment; and they are not subject to labour legislation, social security regulations or collective agreements.

(b) a set of questions on the characteristics of the enterprise where the person works – such as size of enterprise, legal ownership, type of accounts, and formal registration of the enterprise. Several categories of workers in informal employment are derived: own-account workers and employers working in their own informal sector enterprises; members of informal producers' cooperatives; and own account workers engaged in the production of goods for own final use.

(c) a set of questions on social protection or other employment benefits addressed to all employees – specifically, the payment of social security contributions or the existence of paid leave. The category of workers in informal employment derived is employees holding informal jobs in the formal sector. (For more information on gender and informal employment, see UNECE, 2010)

Time use. A time use module may utilise for data collection either a separate instrument, such as a light time diary, or, more often, a set of questions on specific paid and unpaid activities integrated within the same questionnaire dedicated to labour force measurement (UN 2005). The reference time period is usually the 24 hours of a day or the seven days of a week. Information on time use is crucial for understanding gender roles in productive and non-productive activities. It is the basis for the measurement of unpaid work such as household production or volunteer community work. This work, more often performed by women than by men, is not usually covered by the labour force statistics. In addition, time-use information can be used to better capture some forms of work that, although considered economic and productive by international standards, are not properly reported, especially in the case of women. Finally, information on time spent by women and men on specific activities such as caring for children or elderly, cooking, washing, or repairing are important for understating intrahousehold distribution of gender roles and gender-specific work-family balance.

Work-family balance. Understanding work-family balance requires additional information about the person and other household members. First, demographic characteristics such as sex and age should be collected for all household members; in addition, basic economic characteristics should be collected for all adults in the household. That information will show whether children or older persons (groups usually in need of some care) are part of the household; and whether other adults in the household have a source of income. Second, the distribution of gender roles within the household may be captured through questions on household responsibilities in taking care of children, ill, disabled or older household members; and involvement in various types of housework. The time spent in each such activity may be provided by a time-use module. Third, questions on availability and quality of childcare services are particularly important in countries where such services are not easily and equally available to all population subgroups. Fourth, questions on individual

reasons for choosing certain non-regular jobs or non-standard working arrangements may show whether family or non-family factors are among the main reasons.

Questionnaire design and interviewer's manual

Questionnaire design should ensure that the labour force concepts are translated into specific questions in such a way that the survey respondents can comprehend and answer accurately. As presented above, for each topic covered by the labour force survey, there are strategies for reducing the underreporting of economic activity and misreporting of categories of labour force or working conditions. In summary, these measurement strategies are (Husmanns and others, 1990; Mata-Greenwood, 1999; 2003):

- Use a set of questions rather than one direct question for each of the topics;
- Avoid using keywords such as “economic activity”, “occupation”, “looking for work” that may induce underreporting of non-market economic activities;
- Include short explanatory notes in the questionnaire and detailed instructions, including explanations of concepts, in the manual;
- Use additional probing questions for selected groups of employed or status in employment categories;
- Use lists of economic activities that are usually underreported (for example, those considered an extension of domestic activities, and/or carried out at home);
- Use specific questions to identify particular subgroups of unemployed or non-active.

These strategies should be taken into account when developing the survey questionnaire and when preparing the interviewer's manual.

Country examples to be included and discussed. Among the issues considered:

- leading and probing questions on employment & economic activity lists – and excerpts from manuals on those issues;
- categories of reasons for not seeking work – if possible, connected to the identification of discouraged workers or seasonal workers;
- additional categories of answers for status in employment – and excerpts from manuals on that issue;
- LFS modules on income; informal employment; time use.

Training of interviewers

From a gender perspective, the training of interviewers should cover several aspects (Husmanns and others, 1990; Mata-Greenwood, 1999):

- Explanation of work-related concepts should be followed by a warning that the respondents' or the interviewers' understanding of the concepts may be different from the concept intended to be measured. Stereotypes of women as housewives should be discussed. Lists of economic activity that may be underreported and lists of housework activities that are not considered economic should be compared and the differences between those activities should be made clear.
- Interviewers should be trained on using probing questions and lists of activities.
- In-depth training based on examples and explanations is required for those items in the questionnaire where the interviewer has to categorize the replies given by the respondents. This is, for example, the case of recording information on status in employment.
- Clear guidelines in selecting the appropriate respondent should be given.

References

Husmanns, Ralf, 2004. Measuring the informal economy: From employment in the informal sector to informal employment. Working Paper No.53. International Labour Office. Geneva.

Husmanns, Ralf, Farhad Mehran and Vijay Verma, 1990. *Surveys of economically active population, employment, unemployment and underemployment: An ILO manual on concepts and methods*. International Labour Office, Geneva.

International Labour Office, 1982. Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the Thirteenth International Conference of Labour Statisticians.

International Labour Office, 1993. Resolution concerning the International Classification of Status in Employment (ICSE), adopted by the Fifteenth International Conference of Labour Statisticians.

International Labour Office, 1993. Resolution concerning the International Classification of Status in Employment (ICSE), adopted by the Fifteenth International Conference of Labour Statisticians.

International Labour Office, 1998. Resolution concerning the measurement of employment-related income. The Sixteenth International Conference of Labour Statisticians.

Mata-Greenwood, Adriana, 1999. Incorporating gender issues in labour statistics.

Mata-Greenwood, Adriana, 2003. Producing Labour Statistics that are useful for addressing gender concerns. Room Document for XVII International Conference of Labour Statisticians (ICLS/17/2003/RD.9), Geneva, 24 November – 3 December 2003.

United Nations, 2005. Guide to Producing Statistics on Time Use: Measuring Paid and Unpaid Work. DESA, Statistics Division, New York.

United Nations Economic Commission for Europe and World Bank Institute, 2010. *Developing Gender Statistics: A Practical Tool*. Geneva.