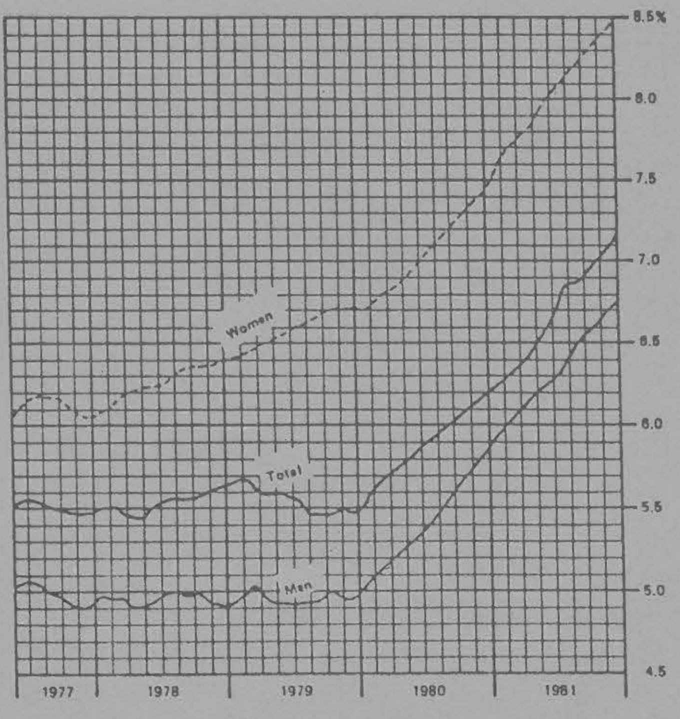
IMPROVING CONCEPTS AND METHODS FOR STATISTICS AND INDICATORS ON THE SITUATION OF WOMEN



GENERAL DISCLAIMER

Originally published in 1984 by the United Nations as
Sales Publication (E.84.XVII.3)

Re-printed by INSTRAW in Santo Domingo, 1988.

SB-7/E

IMPROVING CONCEPTS AND METHODS FOR STATISTICS AND INDICATORS ON THE SITUATION OF WOMEN

DEPARTMENT OF INTERNATIONAL ECONOMIC AND SOCIAL AFFAIRS

STATISTICAL OFFICE
and
INTERNATIONAL RESEARCH AND TRAINING INSTITUTE FOR
THE ADVANCEMENT OF WOMEN

PREFACE

The present publication is one of two new United Nations reports specifically concerned with the development of statistics and indicators on the situation of women. 1/ These studies have been prepared in response to recommendations of the World Conference of the International Women's Year, the World Conference of the United Nations Decade for Women: Equality, Development and Peace, the Economic and Social Council and its functional commissions concerned with statistics and with the status of women and the Board of Trustees of the International Research and Training Institute for the Advancement of Women. 2/ The present studies follow up and elaborate on an earlier working paper issued by the United Nations Secretariat which provides an overview of sex biases in statistics and is entitled "Sex-based stereotypes, sex biases and national data systems" (ST/ESA/STAT/99).

Even though the two reports, Compiling Social Indicators on the Situation of Women and Improving Concepts and Methods for Statistics and Indicators of the Situation of Women cover largely the same subject-matter, they have clearly distinct purposes. Compiling Social Indicators is concerned with immediate applications. It is user oriented and is concerned primarily with the effective utilization of statistics currently available in many countries. It is not primarily concerned with the development of new data collection programmes but rather with developing reliable indicators on the situation of women from existing censuses, household surveys and registration systems to the extent that such data systems exist in any given country. Compiling Social Indicators should also be useful to countries interested in improving their existing data collection systems in order to generate additional basic indicators on the situation of women using concepts and methods in current use.

Compiling Social Indicators also recognizes the hazards of working uncritically with many data series currently available. Thus, it discusses and evaluates the underlying methods and concepts of existing sources, so that they may be meaningfully interpreted and effectively exploited in terms of users' immediate priorities. It is hoped that this improved understanding will lead to better indicators and to their more effective use. Toward these ends, Compiling Social Indicators also endeavours to provide some orientation on the complementary roles of censuses, sample surveys and registration and record systems as well as on their advantages and disadvantages. It presents illustrative indicators from all three sources but focuses on those which may be developed from data systems which already exist in many countries.

The present report, Improving Concepts and Methods, has two quite different objectives. The first is to critically review the concepts and methods most widely used in ongoing general data collection programmes from the point of view of their suitability for collecting adequate, meaningful, relevant and unbiased statistics on the situation of women. The second objective which is linked to the first, is to consider possible changes in existing recommendations and practices concerning statistical concepts and methods. It is recognized that there is wide variation in the length of time required for new concepts and methods to be developed, tested and implemented on a wide scale. Some concepts and methods may require only relatively minor modifications to existing data collection programmes. Others may involve extensive review of complex classifications and have widespread and costly ramifications for many important data collection and analysis activities. In such cases the process of research and subsequent adoption at the national and international levels may take some years and an additional lengthy period would be required for the changes to be implemented and the results compiled. Thus, each chapter of improving Concepts and Methods is designed to outline an informal agenda for research and possible new recommendations over the next 10 years or so. In some cases, the possibility of developing new international recommendations for universal use, given the present state of knowledge, seems a fairly distant goal, and so the emphasis is more on required research. In other cases, completed research already points the way to more formal consideration and widespread adoption of new concepts and methods, so technical issues to be considered in this process over the next few years are considered in greater detail.

Both studies focus on indicators relevant to major social and economic issues and women's role in development. They emphasize the fundamental importance of distributive justice and of economic, social and political autonomy for women in both developed and developing countries. The topics discussed are not exhaustive but were selected on the basis of previous work of the United Nations on social indicators and levels of living, priorities established by the two World Conferences, the availability of data and research on which to draw, the recommendations of the Expert Group on Improving Statistics and Indicators on the Situation of Women, held in New York from 11 to 15 April 1983, and consultations with the United Nations regional commissions and interested specialized agencies.

These two reports have been prepared as part of a joint project of the Statistical Office of the United Nations Secretariat and the International Research and Training Institute for the Advancement of Women (INSTRAW), located in Santo Domingo, to improve the availability and promote the use of statistics and indicators concerning women. The present report was drafted by Nadia H. Youssef as consultant to the United Nations Secretariat. Both reports were discussed in draft form by the Expert Group at its April 1983 meeting and have been revised to take into account the comments and recommendations of the experts 3/ as well as those of the United Nations regional commissions, the International Labour Organisation, the Food and Agriculture Organization of the United Nations, the United Nations Educational, Scientific and Cultural Organization, the World Health Organization and a number of other national and international organizations and specialists. In the light of comments received, portions of the present report were substantially revised and chapter V was added. In particular, the following may be noted: Helen Ware, Rapporteur of the Expert Group, made a significant contribution to chapter I; the United Nations Secretariat made substantial changes in chapter IV; and the World Health Organization contributed chapter V. The contributions of Ms. Ware and the World Health Organization are gratefully acknowledged.

The Expert Group, in addition to providing guidance on the revision of the two reports prior to publication, made several recommendations for follow-up activities. These recommendations covered such issues as ways to link the selection of indicators to priorities on women's needs at the national level, needed methodological research, ways of enhancing national data collection and compilation activities and needs for related technical co-operation.

Among priorities for follow up, the Expert Group recommended that the Statistical Office of the United Nations Secretariat and INSTRAW work with national users and producers of statistics and appropriate international groups:

(a) To develop national and regional workshops to identify and establish priorities for the selection of statistics and indicators in terms of women's needs in specific countries. These workshops could also train users and producers of data in the analysis of sex differentials in key areas of concern;

(b) To promote the development of new or improved concepts and methods for use in future national data collection activities through research, testing and exchange of information;

(c) To develop training materials and technical documentation needed for the workshops and for national statisticians and others interested in developing better statistics and indicators on the situation of women;

(d) To encourage ongoing national data collection activities, such as censuses and surveys, to take full account of the needs for data on the situation of women;

(e) To promote interaction between national and international specialists on a regular basis;

(f) To promote the exploitation of existing data archives with a view to developing new tabulations of existing data.

The Expert Group also identified a number of specific areas where research and testing leading to improved statistical concepts and methods were particularly important. These included: (i) intra-household income distribution; (ii) women's participation in the agricultural labour force; (iii) the informal sector; (iv) time allocation; (v) non-monetary income and consumption and housework and their valuation; (vi) training outside the regular education system; and (vii) households and families.

The recommendations of the Expert Group clearly mandate an ambitious effort. Nevertheless, they represent the steps necessary to realize the flow of relevant, timely and reliable data required by national policy-makers and members of the general public in each country to assess the situation of women. Obviously, the existence of appropriate statistics and indicators on the situation of women does not guarantee an end to laws, policies or practices that work to the disadvantage of women. However, the availability of such statistics and indicators, by quantifying both the special disadvantages women face relative to men and the progress made towards equality, can stimulate policies and programmes and change public perceptions. The present report, by focusing on needed improvements in concepts and methods, is designed to enhance the contribution that statistics and indicators can made to this process.

Further information on the work of the United Nations in this field may be obtained by writing to the Director of the Statistical Office of the United Nations, New York, New York 10017, or the Director of the International Research and Training Institute for the Advancement of Women, Apartado postal 21747, Santo Domingo, Dominican Republic.

Notes

1/ The first is Compiling Social Indicators on the Situation of Women, Studies in Methods, Series F, No. 32, (United Nations publication, Sales No. E.84.XVII.2).

2/ See Report of the World Conference of the International Women's Year, Mexico City, 19 June-2 July 1975 (United Nations publication, Sales No. E.76.IV.1), chap. II, sect. A, paras. 161-173; Report of the World Conference of the United Nations Decade for Women: Equality, Development and Peace, Copenhagen, 14 to 30 July 1980 (United Nations publication, Sales No. E.80.IV.3 and corrigendum), chap. I, sect. A, paras. 257-263; and Economic and Social Council resolutions 2061 (LXII) of 12 May 1977, entitled "Improvement of the data base for measuring the implementation of the World Plan of Action for the Implementation of the Objectives of the International Women's Year", and 1981/11 of 6 May 1981, entitled "Social indicators applicable to studies on women".

3/ The following experts participated in this meeting in a personal capacity: Mercedes Concepción (Philippines), Bernard Grais (France), Birgitta Hedman (Sweden), Devaki Jain (India), Carmen McFarlane (Jamica), Margaret Mód (Hungary), Zenebework Tadesse (Senegal), Elizabeth Waldman (United States of America) and Helen Ware (Australia). The report of the expert group meeting has been issued as document ESA/STAT/AC.17/9-INSTRAW/AC.1/9.

CONTENTS

CONTENTS (continued)

CONTENTS (continued)

INTRODUCTION

Background

1. The present report was prepared as part of a joint project of the Statistical Office of the United Nations Secretariat and the International Research and Training Institute for the Advancement of Women. The project is intended to provide guidance to present and potential producers and users of statistics on women at the national, regional and international levels. It is concerned with the definition, selection, specification, and use of practical and reliable indicators for monitoring and evaluating the situation of women and their roles in all aspects of economic and social development as well as for related planning, programming, administration, evaluation and research. One of the major objectives of the project is to review and critically appraise the nature and adequacy of existing international and national practices related to the conceptualization, measurement, coverage, collection and organization of statistics on women. This work is thus a continuation and expansion of the work on the improvement of concepts and methods suitable for collecting statistics on the role and status of women initiated by the United Nations Statistical Commission and the Statistical Office in 1978. 1/

2. The explicit purpose of the present report is twofold: first, to take stock in order to identify gaps in data and problem areas where reconceptualization is critical; and second, to propose long-range goals for improving the quality and relevance of data pertaining to the condition of women by suggesting new measures, adaptations of current practices and further statistical research and field experimentation.

3. The report does not advocate the creation of a separate body of social knowledge about women. The basic assumption underlying the discussion is that the conventional methodologies used in data collection - because of inadequate conceptualization - have often been unable to capture the particular behavioural context in which women function. Current conceptual frameworks, the indicators utilized and the manner in which questions are asked and interpreted do not always reflect or express the unique aspects of women's social functions (in terms that extend beyond their reprodutive roles). Designing methods and concepts to be more sensitive to the condition of women does not imply that different methods should be used for each sex but rather that concepts, definitions and classifications should be broadened to ensure that new forms will be better equipped to take into account the spcific circumstances of the worlds of both women and men and that they help describe the poor.

4. Current methodologies have been somewhat insensitive in inadequately describing (a) the characteristics of poverty groups in general and of poor women in particular and (b) changes in the condition of women resulting from economic and social modernization. Moreover, current methods in social statistics betray strong sex biases along the following lines:

(a) Insufficient concern with disaggregating available data by sex;

(b) Significant underreporting and underestimation of:

(i) women's economic activities;

(ii) Female mortality;

(iii) Female headship of households;

(c) The projection of a unidimensional view of women as wives and mothers, as reflected in the relative abundance of data collected on fertility behaviour and the scarcity and inaccuracy of data on women in non-domestic spheres.

5. In the present report statistics and indicators on the situation of women are treated in a selective rather than an exhaustive manner. The major intent is to describe the characteristics of women in developing countries relative both to other women and to men and more particularly to focus on the disadvantaged sections of the female population. From the general list of areas of social concern identified in the work of the United Nations on a framework for the integration of social, demographic and related economic statistics, six areas are discussed here, as follows: 2/

(a) The position of women in family formation, families and households;

(b) Women, learning and educational services;

(c) Women's economic activity and labour force participation;

(d) Income and income distribution;

(e) Health status of women;

(f) Socio-economic differentiation and mobility.

6. Ultimately, each country must determine the degree of priority that its national statistical services should place on the development of relevant statistics and statistical indicators on women. The United Nations system provides international recommendations and guidelines to promote the development of social and related statistics, but problems in attaining strict comparability across societies with respect to all social indicators on women are inevitable. No one complete, uniquely desirable set of social indicators can be applicable to all countries because of the wide variation in the economic, social and cultural composition of societies. This variation will affect the relevance in each country of certain of the issues raised in this report and the applicability of the proposals for reconceptualization and measurement that are made.

The functions of social indicators

7. Social indicators are conceived of as a means of summarizing socially oriented statistics for user purposes. Countries may assign lower or higher priority to indicators in the different fields of social and related economic statistics depending on their individual patterns of use of statistics and indicators and the development of their social statistics. Within the United Nations system the particular importance of improving statistics on women stems from two sources. One is that the effort is part of a larger attempt to select and develop a variety of additional social and demographic statistics around the basic social concerns articulated in the United Nations preliminary guidelines on social

indicators (52),* which are basically focused on measuring and monitoring welfare and the underlying circumstances and factors affecting it. The condition of women is clearly one of these concerns, and documentation of women's situation will strengthen the integration of social statistics and welfare-oriented economic statistics. The second consideration is that the present concern with refining measurements and indicators on the situation of women will, as a by-product, lead to a more critical appraisal of the statistics available on men. New statistics on men will in fact be identified and developed in areas where the situation of women needs to be compared with that of men.

8. Social indicators on the situation of women can be utilized at four levels, each of which is described below.

(a) Integration of social, economic and related statistics

9. The development of statistics and specification of indicators on the situation of women will provide an important reference point and data collection guidelines for the more general process of developing integrated social, economic and related statistics. The purpose of social statistics - exemplified by the population census - is to provide a nation-wide information system sustained by regular time-series data. Collected at long-term intervals, such data allow comparisons of long-term trends as well as the registration of significant fluctuations in broad demographic, social and economic characteristics of total populations. Such data are crucial to analysing long-term patterns and determining the direction of change in women's and men's lives over extended periods. However, because of their infrequency, long gestation period and restricted format, censuses by themselves are less useful for monitoring purposes and for policy action (3). Thus, household surveys and other sources of integrated social, economic and related statistics are also discussed in this paper.

(b) Monitoring trends

10. Social statistics are necessary for monitoring and evaluating changes in the role of women resulting from socio-economic transformation and for assessing the impact of development programmes and projects formulated and implemented on behalf of women.

11. With respect to monitoring the impact of modernization on the role of women, there is further need to develop statistics to monitor more closely changes occurring in women's lives as a result of migration, family fragmentation, urbanization and modification of domestic structures (70).

12. The usefulness of social indicators for evaluating development programmes at the project level has been recognized by several countries, for example, India, Indonesia, the Islamic Republic of Iran, Malaysia, Morocco, the Republic of Korea and Thailand. 3/ These countries are in fact compiling indicators from household surveys, administrative records and vital statistics in order to monitor and evaluate more systematically the impact of projects on their population.

---

* Numbers in parentheses are keyed to the reference list at the end of the present document.

(c) Social reporting

13. The identification and the compilation of social indicators and statistics on women are particularly important for social reporting, the objective of which is to identify areas and groups as targets for policy action. Appropriate statistics can reflect special needs, such as those of women, the elderly, refugees and migrants.

(d) Assessing the status of women

14. Despite past efforts to assess the status of women, there is a continuing need to identify and compile more sensitive indicators to reflect the relationship between the sexes in terms of gaps between male and female rates, representation ratios and segregation indexes. 4/

15. The objectives of assessing the situation of women are conceptually distinct from those of social monitoring and social reporting in that the situation of women is an equity-oriented rather than a development-oriented or welfare-oriented concept, although the three are clearly interrelated. Indicators of the situation of women thus place greater emphasis on equality of opportunity and define sex differentials in terms of the resources and options available to men and women which constitute the determinants of their situation. 5/ All social statistics related to the measurement of the situation of women must express the relative position of women versus men. Ideally, in collecting data for that purpose, similar formats should be used for men and women, and the same time period and geographical locations should be covered.

16. In addition, social indicators can be used for such purposes as social analysis, 6/ development planning 7/ and the construction of an "index of well-being for women". 8/

I. WOMEN'S POSITION IN FAMILY FORMATION, FAMILIES AND HOUSEHOLDS

17. The design of current censuses and household surveys in many countries tends to reflect preconceptions of households and families as consisting of nuclear marital units in which both spouses are present, and of women as being married, mothers, occupied with domestic tasks and economically dependent on a male head of household. However, the increasing use of household surveys in both developed and developing countries provides a basis for exploring what new data are possible and indeed necessary to collect in order to gain a greater understanding of the changing position of women in the context of the family and the household.

18. The present chapter covers four different aspects of the position of women in relation to the household and the family. The first section deals with the concept of head of household and the identification of female-headed households, which are particularly important for analysing the situation of women. There are a number of limitations and ambiguities in current uses of these terms, which must be clarified before they can be used to provide satisfactory statistics. 9/ This section also discusses how statistics on household composition can to some extent provide more reliable measures of women's position in the household and of particular kinds of households in which women have additional responsibilities than can statistics on headship. But here again methods of classification and compilation need to be standardized and extended. The second section addresses the problem of measuring well-being in households headed by women where income data are not available. The third section addresses the effects of various types of migration on women, in particular the situation of migrants' wives who are left behind, and the fourth section discusses limitations of current concepts of marital/union status and the more general issue of statistics on women's life cycle patterns.

A. Headship and composition of households

1. Household headship and female-headed households

19. While data on individuals are easily cross-classified by sex, data on households and families are much more of a problem. A household may be composed of equal numbers of both sexes or may be predominantly or exclusively composed of members of one sex. As long as households and families are thought of as combinations of individuals there is no problem. The difficulty arises when one person in a multi-person household, or that person's characteristics, are taken to represent the household as a whole.

20. In statistical usage the "head of household" was originally simply the reference person used to identify family relationships within the household. Since in most cultures the respondents and the perceived "bosses" of the household were usually men, it was perhaps natural that the person recorded as head of household by male enumerators was usually a male. As long as the head of household was simply a reference person, this practice, although possibly biased, was not of great significance. Soon, however, it became commonplace to identify the characteristics of the household as a whole with those of the head of household. Thus, for example, "farming household" were households in which the male head of household was a farmer, irrespective of whether the other members of the household were traders or craftspersons. Women within households tended to become invisible, their characteristics and contributions being largely ignored. 10/

21. Economic analysis, being widely based on the assumption that the income of the head of household was representative of the income of the household as a whole, further served to push women's contribution into the background. Also, there was a nearly universal assumption that all members of a household shared a common standard of living and thus that there were no inequalities within households. It followed from this assumption that anything that benefited the household as a whole, or was of benefit to the male head of household, was of benefit to each and every family member. Clearly, such an analysis left no scope for a conflict of interest between male and female household members or even for different needs.

22. Indeed, owing to the general vagueness surrounding the concept of the household, there were a great many questions that remained unanswered. It was recognized that a minority of households were in fact headed by women who had been widowed or deserted and thus were left in households where there was no adult male. But very little was known of the extent to which the death or desertion of the male resulted in the disappearance of entire households as lone women and their younger children were absorbed into the households of their relatives. Little information was available on other questions as well. In a consensual union in which the partners did not live together, did they form two separate households? In polygynous marriages did each wife and her children form a separate household of which she was head or was a single polygynist recorded as the head of several households? When men migrated in order to earn cash income but continued to send remittances home, were they still recorded as the head of their household at their place of origin? Clearly, the answers to these questions will have a marked impact on the proportion of households that will be recorded as having female heads; yet, these are questions to which there are often no standard answers. There are also unanswered questions relating to authority within households. Under what circumstances are younger males recorded as head of household in preference to women of an older generation? At what age is a widow's son recorded as the head of household?

23. Interest in households headed by women has quickened because of rapidly accumulating evidence that the members of such households are often to be found among the poorest of the poor. There is also a common belief that the number of female-headed households is increasing. It is argued that this is in part because families headed by women are becoming less likely to be absorbed into other household units owing to the weakening of the bonds linking extended families.

24. Much confusion has resulted from failing to distinguish between all households headed by women and those headed by women by virture of the fact that there is no adult male present. The common assumption is that women will only be recorded as household head when there is no adult male present, but in the absence of coding rules to this effect, this is a matter for investigation. Conversely, in *de jure* enumerations it is important to establish how many households with no adult male currently resident are recorded as having a male head of household.

25. For purposes of social policy, three types of households headed by women are of special interest:

(a) One-person households of lone women (additional data on the age and marital status of these women are very helpful);

(b) Households where there are women and children but no adult males (additional data on remittances coming into the household would be very useful);

(c) Households where adult males are present but where, owing to invalidity, unemployment, alcoholism or other factors, a woman is the principal economic provider.

Clearly, categories (a) and (b) can be readily identified from census or household survey data if de facto residence criteria are used. The third category, however, will only appear when additional questions are asked about individual income or the main source of livelihood.

26. National censuses and household surveys are used to collect basic data on families and households. There is nothing inherent in the concepts of households and families used by census-takers and survey-takers that leads directly to a devaluation of the role of women in society. The concept that has encouraged such a devaluation is that of head of household. There are major problems in determining how many households in developing countries are headed by women. Relevant tabulations are often unavailable, but even where the necessary data are available, definitional problems often undermine the value of the resultant information.

27. In 1973 the United Nations reported that only 36 nations collected data in the 1960 round of censuses on household/family heads by sex and age (less frequently by marital status) where headship was explicitly defined (only three of these countries were in Asia, two in South America and none in Africa) (48, p. 11). Twenty-three countries left the respondents to designate the household or family head using their own criteria. Seven countries defined the head as the person in control or in authority. Six countries used a definition in which the head was the "main supporter" or "chief earner". There was little evidence that the variations in the definitions produced any significant differences in the data collected.

28. In 1980 the United States Bureau of the Census resurveyed the available data on household headship and found that while 25 countries provided some data, only 17 provided explanatory information on the definition used. The majority of countries still relied on the respondents to nominate the head without any guidance from a set definition.

29. Thus, much confusion has resulted from the use of the term head of household to cover a range of different but often overlapping concepts. The term has been used variously to identify (a) a census reference person; (b) the household's chief decision-maker; (c) the household's chief economic provider; (d) the person who is entitled to claim certain benefits such as land or membership in a co-operative on behalf of the household; and (e) the person whose characteristics provide the best indication of the status of the household as a whole. Some of these uses obviously would allow a head of household to be a person who is not resident within the household or indeed for a labour migrant or polygamist to be the head of more than one household.

30. In order to avoid confusion in the future, the term head of household should be replaced by a more specific term wherever practicable. For many census purposes it is sufficient to nominate a reference person within the household. It is then possible to make simple and unambiguous rules such as that the reference person is the oldest adult male resident in the household (excluding all males absent for six months or more) and that where there is no adult male resident, then the reference person is the oldest female resident. While such a rule has a clear male bias, it has two advantages: (a) it involves little more than a clarification of existing

practice in most cultures, where heads of household are expected to be male; (b) it allows a one-to-one identification of all female reference person households as households where no adult male is resident. In the past much confusion has resulted from the common but unwarranted practice of using the term "female-headed households" to mean "households with no adult male present". Certainly most of the literature on the poverty of households headed by women has focused on women who live in households where there is no husband, father or other adult male who might provide economic support (11, 34).

31. In some cultures it will not be realistic or acceptable to have a set rule giving preference to men as household reference persons. In the Recommendations for the 1980 Censuses of Population and Housing in the ECE Region, it was left to countries to decide whether the reference member should be:

(a) The head of household;

(b) The head of household or one of the joint heads;

(c) The person (or one of the persons) who owns or rents the housing unit;

(d) An adult person selected with a view to facilitating the determination of family relationships; or

(e) A person selected on the basis of other criteria. 11/

32. Such recommendations do nothing to resolve the problem that stems from the fact that in an egalitarian marriage or union there is no "head" and that many couples now hold property jointly. If the only reason for having a reference person is to establish family relationships, then it matters little who is nominated. However, it would be convenient to have a standard pattern, with perhaps simply the oldest person in the household appearing as the reference person.

2. Measuring the incidence of households headed by women

33. From the perspective of social statistics, monitoring and policy intervention, there are three major reasons why it is critical to disaggregate household headship by sex and type: (a) to assess and document the diversity of residential arrangements and household/family forms characterizing societies at different points in time; (b) to monitor and evaluate changes in women's economic roles and responsibilities; and (c) to identify economic hardship among households headed by women for policy intervention, given the growing evidence that these households are disproportionately the poorest among the poor (11, 34).

34. Different measures are needed for each of these situations. If one type of measure is concerned with female headship by virtue of household composition and another is concerned with female economic responsibility, overlapping between the two types of female-headed households is then open to empirical investigation.

(a) Female headship by household composition. This measure should cover all households characterized by the absence of an adult male, where a woman functions as the adult member primarily responsible for the management of the household, independently of whether or not she is the major/sole economic provider. This category of households is derived from a profile of household composition. Three particular types can be distinguished:

(i) Households established without a male/father figure present from the outset, as in the case of unmarried mothers;

(ii) Households where the adult male is initially present but later is absent owing to death, divorce, desertation or the like;

(iii) Households where the adult male is absent (temporarily), as in the case of migration;

(b) Female economic responsibility. This measure should cover all households in which a woman functions as the major/sole economic provider for herself and other household members. This category will be derived mostly from the universe of households from which males are absent. It is conceivable, nevertheless, that the conditions specified will also exist in households with an adult male present whose economic activity is marginal and who is unable fully or in major part to fulfil his economic responsibilities to his family.

35. Special probing will be required to identify women who assume major or full economic responsibility for the family/household. Some suggestions for questions that can be used are the following:

(a) Who in this household takes responsibility in the family for:

(i) Providing financial support?

(ii) Making decisions regarding important family matters?

(b) How do you define the term "head of household"?

(c) Do you consider yourself the head of household? If yes, why? If no, why not?

(d) Have you ever considerd yourself head of this household? If yes, why?

(e) If previously married, have you ever considered yourself to be the head of a household at any previous time in your life? If yes, specify for what period of time and for what reason;

(f) Have you ever been the main provider for your family? If yes, when was this? Why?

36. There are distinct advantages to conceptualizing and measuring the incidence of female-headed households and female economic responsibility along these lines. Such an approach allows female-headed households to be identified on the basis of a measure derived from the actual analysis and tabulation of responses. The controversial question "Who is head of this household?" is eliminated, and possible biases on the part of the interviewer or respondents can be minimized.

3. Household composition

37. The methodology of considering the household to be an entity in itself has the operational effect of "forgetting" about the role of family members other than the head. In particular, this approach tends to conceal information about female

members of the household because the head of household (usually identified as a male) tends to be defined not only as the respondent from whom information is obtained on the socio-demographic characteristics of individual members but also as the reference person. In describing the household, the characteristics of this one individual are taken to represent what is in fact a composite entity comprising different people - among them women - with separate characteristics. 12/

38. New methodologies of inquiry need to be developed so that the characteristics of all adult members will be taken into account and examined within the context of the household in which they live. Thus, it is important to:

(a) Obtain pertinent information about all women in the household; and

(b) Describe the changing roles of women in relation to domestic arrangements and the household economy.

39. If the characteristics of the head of household are no longer to represent the household as a whole, then it will be useful to have a standard classification of the structure of the household as a whole. An example would be:

(a) A lone female (one-person household);

(b) A lone male (one-person household);

(c) A married/union couple with children;

(d) A married/union couple without children;

(e) A lone mother with children;

(f) A lone father with children;

(g) A household of siblings;

(h) A two-generation household without children;

(i) A three-generation household;

(j) All other households with more than one married couple;

(k) A household of unrelated persons.

It would clearly be helpful to incorporate additional information on age, marital status and other family relationships such as lineage and labour force status into the classification, but this would result in greater complexity. One of the best ways of establishing a classification scheme for households is to take a set of sample data and use it to define basic categories that will describe, say, 90 per cent of households in the society. The remaining, relatively rare household types can be consigned to an "other" category.

40. Once the procedure for determining the household reference person has been established, a building-block approach can be used to identify further figures of interest within the household. Specific questions can be asked to identify the chief economic provider (with a separate category for those sending remittances)

and the person who is the chief decision-maker (again making a distinction, where appropriate, between the decision-maker who is present and the decision-maker who is absent but holds a power of veto).

41. In most cases economic data should be gathered for each member of the household. The appropriate assumption is not that the head of household is the sole economic provider but that every adult member of the household is a potential contributor to the economic well-being of the household. In developing countries questions on economic activity of children will often also need to be asked. In Western countries the concept of the two-income household is becoming standard. In developing countries it would be useful to have a clear picture of the distribution of income earned by individuals within the household. Such information would allow a realistic reassessment of the dependency burden that would not rely on simple cut-offs by age and by sex. Statistics on income and earnings are further discussed in chapter IV below. Better measures of household headship and composition will also contribute to better measurement and analysis of women's economic position in the household, including their economic and productive contributions and the intra-household control and allocation of income.

B. Measuring the well-being of households headed by women

42. Households headed by women are not a homogeneous group, and measures must be devised to reflect the extent of their variability in terms of demographic characteristics and levels of well-being and income. In chapter IV of this report, measures are considered for estimating the income levels of female-headed households. The present discussion is focused on the identification of other indicators of well-being. Household circumstances that might provide such information include:

(a) The ability/inability of the head of household to provide economic support;

(b) The presence/absence of a dependency burden;

(c) The ability/inability of the household to draw on human resources within its own structure.

43. Such measurements can be derived from available data on the demographic characteristics of the household and the age ad marital status of the head of household. These variables are closely related to the well-being and the economic standing of the household. 13/ Several such variables are described below.

1. Household size as a proxy indicator

44. The importance of household size is that the number of adult resident members determines the income-earning potential of the household and that the total number of members determines the overall economic needs that have to be provided for within the household. Indications of household size make it possible to identify and draw comparisons among one-person households, households with a large number of dependants, households with young women with small children and so on. 14/

2. Household composition

45. Household composition has been used as either a control or a proxy for information on the economic well-being of the household. Data on the sex and age composition of the household permit households to be characterized on the basis of their earning capacity. 15/ Living units with multiple earners or two or more males of prime working age contrast in human resources and earning capacity with households headed by older widows living with their grandchildren or by young single mothers.

3. Age and marital status of head of household

46. A woman's age denotes the life cycle stage she has reached, which is reflected in differences in household size, household composition and dependency burdens. A woman's age is also indicative of her income-earning potential, her access to productive resources and the probability of the household's receiving remittances from external sources. 16/ A woman's age will also denote the probability of her remarriage and continued childbearing.

47. There is evidence that the marital status of the woman head of household is reflected in the economic standing of the household, particularly in ownership patterns and support extended by kin. Rural widows often find themselves in a better position (in terms of access to land and support from kin) than do divorced and separated women, although there are clear exceptions. 17/ Single mothers and women who have been abandoned have been shown to be the most disadvantaged among household heads (6).

C. Migration and households

48. Conceptual and practical problems have limited the development of reliable indicators of internal and international migration by individual family members who retain an attachment to their families of origin. As a result, very little is known of the situation of spouses and/or families who are left behind when men (or in some cases women) leave home to work or to marry at a distance.

49. Ideally, survey data should distinguish between women whose husbands are resident in the same household, women living separately from their husband owing to marital disharmony and women whose husbands are absent, working elsewhere. Where labour migration is common, it may well be worthwhile to incorporate an additional category under marital status for "wife of labour migrant". In most cases such wives will be recorded as the de facto head of household. For most practical purposes it is unsatisfactory to attribute household headship to males who cannot be interviewed locally and may even be living across national borders. However, if the principal concern is with the economic structure of the household, then it is certainly legitimate to record that the chief breadwinner is absent (see, for example, (77)). Classification of marital/union status is discussed further in section D below.

50. If the focus of interest is on decision-making in the household, it will be necessary to ask probing questions about migration. Depending on the culture and the character of the individuals involved, decision-making in households where male migration has occurred may pass to the wife, to her brother-in-law or father-in-law,

or to some other relative. Conjugal households may be absorbed into extended family households when a woman and her children move in with the household headed by her father-in-law.

51. It has already been proposed that, with rare exceptions only, it is for the planner of the census or survey to define who should constitute the household head and for the enumerator or interviewer to apply the definition in any given situation, rather than for the household to be left to make its own decision. Thus, migrant husbands should be consistently categorized with men who are absent for more than a fixed period and excluded from recognition as effective household heads. Other data to be gathered on migration will depend on local conditions and data needs. However, all economic studies should endeavour to gather some information about remittance flows. Nor should it be forgotten that single women working in towns may be remitting money to parents and siblings in rural areas. Nor is it unknown for wives who have remained in rural areas to be helping to support underemployed or unemployed spouses in towns while they search for better opportunities. In very poor areas the mere absence of able-bodied men among the mouths to be fed may contribute to the economic survival of the family.

52. In order to study the impact of male labour migration on women and families left behind, one should ideally have access to information on economic conditions prior to the migrant's departure as well as data on comparable families with no absentee members. Optimally, such data should cover mutual support within extended kin groups, women's work-loads and decision-making responsibilities, access to land and income flows in cash and kind. Caution should be exercised in attributing causal significance to perceived differences between intact households and households disrupted by migration. Wives of migrants may seek wage labour because of the pressure of poverty, because they have more disposable time or because they take a less traditional view of women's roles.

53. Thus, in addition to identifying households in which migration has occurred, there is a need to obtain additional information from women residing in these households on (a) the nature of migration; (b) the impact of migration on women's lives; and (c) the economic relationship maintained by migrants with the household. Each of these elements is discussed below.

1. The nature of labour migration

54. The nature of labour migration is indicated by the duration and periodicity involved in the migratory move. The time factor can be expected to influence the shuffling of household arrangements and resources, to shape the expectations and attitudes of women who are left behind or who themselves migrate and to condition the economic and decision-making role that they will assume.

55. The following types of migration are important in this context:

(a) Short-term seasonal migration;

(b) Short-term non-seasonal migration;

(c) Recurrent short-term non-seasonal migration;

(d) Recurrent long-term migration;

(e) Permanent long-term migration.

2. The impact of male migration

56. Small-scale community studies in areas noted for high rates of labour migration have identified several consequences of male out-migration that bear directly on the condition of women. Given the scarcity of studies, one does not know how representative reported findings may be, and it is therefore important to investigate systematically the impact of male migration on women in some detail on the basis of large-scale population samples.

57. In recent work, the situation of wives left behind has been found to evolve along the following lines:

(a) Decline in systems of support traditionally extended by kin groups to households;

(b) Increasing work-loads, decision-making and farm management responsibilities being thrust upon women;

(c) Inadequacy of remittances to support the rural household and consequent need for women to seek sources of income such as wage labour.

58. To establish whether any of the above conditions are, in fact, a consequence of migration requires an assessment of conditions prior to male migration. Generally, the extension of kin support in rural areas can be measured on the basis of the assistance that kin provide to women with respect to crop labour, financial aid, lending of farm equipment (ploughs, tractors, etc.), and usufruct rights to land and the like. The measurement of the work-load and decision-making responsibilities incumbent upon women requires detailed specification of tasks, decisions and the like that were women's responsibilities in non-domestic spheres prior to male migration, which can be compared with those devolving upon women when male migrants are absent from the household.

3. Relation of migrants to the household economy

59. It is important to determine the economic well-being of households characterized by labour migration and to measure the variation in their economic standing systematically for comparative purposes. Household income levels can be estimated on the basis of inflows of primary income, property income and transfer payments from migrants and from contributions in cash or in kind from sources external to the household (other households, the community and so on). It is particularly important to establish the economic relationship maintained between the migrant and the household; this can be measured by the stability of inflows of income from remittances. Measures and indicators related to the income status of women are discussed in detail in chapter IV below. Particular note is taken of indicators related to remittances and of women's access to productive resources as a factor conditioning the income of women heads of household in rural areas.

D. Marital/union status and life cycle patterns

1. Marriage variants

60. In most data collection systems insufficient attention has been paid to marriage variants such as consensual unions and polygamy. 18/ In areas where such practices are common, it is important to make provision for an extended range of categories of marital status that adequately reflect local realities. In the case of consensual unions, a distinction should be made between "legally married" and "living in a consensual union". The "single" category should be reserved for women who have never been married or lived in a union. Women who have formerly been in a union should be categorized as "separated". This categorization avoids the large numbers of "single mothers" that feature in data from many Latin American and Caribbean studies.

61. Making a distinction between consensual unions and legal marriages carries no moral overtones. The distinction is necessary because the social and economic consequences of consensual living arrangements are structurally different from those of legal unions, especially in the case of dissolution. Where they are possible to obtain, data on remarriage rates provide a valuable indication of the options available to men and women following marital dissolution upon death, divorce or desertion.

62. In societies where polygamy is common it is important to distinguish between spouses in monogamous unions and those in polygamous unions, as well as to record the rank of wives, for the position of senior wife is structurally very different from that of junior wives. In economic surveys of households that include polygamous unions, special pains need to be taken to examine resource flows involving husband, wives and children.

2. Remarriage

63. Remarriage rates for women (and men) should be recorded by previous marital status and age. Such information will provide a measure of the opportunities that are available to women, as compared with men, to form a new domestic unit and of the influence that prior marital status and age have on women's ability to exercise that option.

3. The relationship between marital/union status and women's economic situation

64. Women who are not currently married commonly face a high risk of poverty. Cross-tabulations should clarify the relationship between household composition, marital status and the economic standing of women. More specifically, data are needed on women's work, income and the presence of supplementary earners or alternative sources of income, cross-classified by marital status. Particular attention is justified in examining the situation of women who are solely responsible for the economic welfare of their children.

65. Specific measures that would address some of these issues include:

(a) Marital status cross-classified with data on women's work, women's migration associated with marriage, presence of parents of adults in the household (distinguishing male and female lineages), income and the presence of supplementary earners and/or alternative sources of income;

(b) For women in consensual unions, classification by the major income earner in the household and alternative sources of income available;

(c) For women currently divorced, widowed, separated or who are single mothers, cross-classification of marital status by the number and age of children and by the principal income earner in the household and alternative sources of income available;

(d) Dissolution rates for consensual unions by the age of the woman, number of children and urban/rural residence.

4. Life cycle patterns

66. Changes consequent upon alterations in marital status are but one example of the dynamic quality intrinsic to family formation and household establishment. Interpretation of women's behavioural patterns is often greatly facilitated by complementary information on their life cycle stage. In this context, the age of the oldest child is often a very significant reference point. Data on the relationship between the life cycle stages of women and their economic activities are vital to understanding the pressures and constraints associated with childbearing. While data on marital status are important, data on motherhood may be even more so.

67. Some additional examples of measures relating to life cycle patterns include:

(a) Average number of years available to women after childbearing, in order to understand the relative importance of motherhood in a woman's life and the options and alternatives open to her, in practice, in non-domestic spheres; this can be determined by examining reproductive cycle events (measured by expected intervals between first and last birth) in relation to a woman's total life course (measured by life expectancy);

(b) The impact of childbearing on income and expenditure at different stages of a woman's life cycle.

II. WOMEN, LEARNING AND EDUCATIONAL SERVICES

68. The impetus for women's education transcends the basic acquisition of knowledge and skills; women's education has connotations for their social and economic position. Education gives women a basis for choosing the way they want to live, accords status (though not necessarily power or access to decision-making), helps women help themselves by gaining access to political and economic systems and teaches them to recognize - but not necessarily to exercise - their economic power.

69. The extent to which educational opportunities are made available to women reflects the attitude of society towards options for women other than marriage and motherhood. The extent to which women respond to the educational opportunities provided to them reflects in turn how they see themselves, their life expectations and their ambitions.

70. Not all of the above can be captured in any one set of indicators. In the present chapter the focus is necessarily selective, and the concepts and measures considered are derived from three basic premises. These premises are: (a) limited education and training of girls perpetuates inequalities between men and women, and adult education can only partially make up any deficit in regular schooling; (b) continuing adult education and training, particularly that which is job oriented, is essential to obtaining, maintaining and improving one's employment in conditions of rapid socio-economic change; and (c) specific biases and discrimination against women in technical and agricultural vocational training programmes create institutional barriers that are difficult to overcome.

71. Population censuses are essential sources of bench-mark data on educational attainment and attendance. However, censuses do not provide detailed statistics that are crucial to development planners, manpower specialists and educators for identifying problems and monitoring progress with respect to the issues cited above. Hence, there is a critical need to supplement censuses with an integrated programme of education and training statistics based on co-ordinated administrative and household survey data. Household survey data are needed particularly to monitor and evaluate the impact of educational programmes and policies at the national and subnational levels.

A. Data problems

72. There are serious problems with the indicators that are currently available on educational status. These can be summarized as follows:

(a) Statistics available to measure the current availability of, and participation in various kinds of educational activities are limited to school enrolment. Attendance data are normally compiled only from census data; opportunities to compile them more frequently from household surveys, even where the data are collected, are seldom taken advantage of. In many countries, school records are also a suitable source of attendance data cross-classified by selected socio-economic characteristics, but, again, these data are seldom processed;

(b) Little information is currently compiled systematically to measure educational performance by way of "retention" and "completion";

(c) Data collection is focused on the regular education system and thus less consideration may be given to education and training activities of particular importance to less advantaged groups. Low priority is given to statistics on out-of-school and adult-education and vocational-training programmes organized outside the regular education system;

(d) Concepts and statistics to measure and assess the linkages between schooling, employment (actual and potential), occupational mobility and income have not been widely used (39).

73. One may conceptualize the availability of educational resources (in absolute terms) and equality of occupational opportunity (relative to men) using four different dimensions, for which appropriate measures can be identified as follows: 19/

(a) Access, based on the proportion of eligible age cohorts who are registered or attending school at a particular educational level;

(b) Attainment, based on the proportion of the population who have successfully completed different educational levels or years of schooling;

(c) Continuation, using survival and transition rates based on the proportions of the original enrolment cohort remaining in school throughout an educational cycle and advancing to the next stage, respectively. This measure encompasses both retention within levels and progression to higher levels;

(d) Equal availability of educational options, that is the extent to which the same educational curricula, standards, programme options and quality of education are available to men and women alike.

74. Along these same lines, questions are also being asked about the quality, relevance and functional value of available programmes, but this issue is not directly pursued in this discussion. The functional value of education in women's lives is implicitly referred to in the discussion below, in which it is recommended that linkages between women's education and work should be measured.

75. At present, educational statistics are compiled at the national level from censuses, household surveys and administrative records, mainly those of the educational system. The United Nations Educational, Scientific and Cultural Organization (UNESCO) compiles statistics from administrative records at the international level on an annual basis and those from censuses less frequently. UNESCO does not systematically compile and issue statistics from surveys but takes this into account in its other compilation activities.

76. Regarding the issues of access and attainment, statistics are generally available on:

(a) Literacy levels for populations aged 15 and over;

(b) Enrolment in first-level and second-level education and in higher education, expressed in absolute numbers and as enrolment ratios; 20/

(c) School attendance: These statistics are published on an occasional basis from data collected in national population censuses;

(d) Levels of educational attainment for populations aged 25 and over (in some countries, for those aged 10 and over).

77. Regarding the issue of equal options, indirect measures can be based on type of education for those enrolled at the second level (general, vocational or teacher-training) and on field of study at the third level.

78. Data are given separately by sex for all these basic series. Accordingly, on the basis of the above information it is possible to construct indexes of sex segregation, female representation and sex dissimilarities in the educational process.

B. Measuring women's performance in the regular education system

1. School enrolment and attendance

79. Access to education can be measured on a regular and frequent basis by means of enrolment data disaggregated by sex, expressed in absolute numbers and as enrolment ratios, which can be used to index sex differentials in enrolment by eligible birth cohorts. These data are made available on an annual basis by national educational services and published yearly in the UNESCO Statistical Yearbook. Though an important indicator, enrolment statistics reflect access only partially, because of inadequacy of data on school attendance. Enrolment and attendance would be expected to differ by sex, socio-economic group and residence. However, empirical evidence to substantiate such an expectation is lacking. Socio-economic and geographical classifications in administrative data are limited at best and unco-ordinated with respect to census and survey sources, making the monitoring and analysis of such disparities very difficult.

80. The availability of school attendance data is thus a critical issue. Information from population censuses on attendance is compiled at the international level by the Statistical Office of the United Nations from a special questionnaire that is distributed following each country's population census to the national office responsible for the census. These data are published only in selected issues of the United Nations Demographic Yearbook, and they are difficult to compare with enrolment data because of various conceptual and methodological disparities such as differences in time periods and between enrolment recorded by schools and attendance reported by households. 21/ Little systematic information is available on actual uses of these data at the national level.

81. Countries should give high priority to establishing data collection activities that will provide data on school attendance, disaggregated by sex on a more frequent and regular basis, which can be matched with enrolment data collected annually. Specifically, statistics on attendance are needed to compute attendance rates, by sex age and rural/urban residence for population aged 6 to 24. 22/ National planners need such statistics to monitor educational gaps and progress. Attendance rates by sex and age group should be further broken down by level of enrolment (primary, secondary, and higher) and, where possible, by single-year age groups.

2. Attainment

82. Educational attainment is defined as "the highest grade or level of education completed by the person in the educational system of his own or some other State where the education was received" (68, p. 11). In measuring the attainment, the cut-off points may refer variously to the highest grade completed or attained, years of schooling completed or attained, type of school completed or attained, type of certificate/diploma obtained and so on (68, p. 32). UNESCO tabulates data for as many observations as possible, according to the following six standard levels of education (68, p. 32):

(a) No schooling (no schooling at all or less than one year);

(b) Incompleted first level (completion of at least one year of primary education but primary level not completed);

(c) Completed first level (completion of primary level but no continuation to secondary education);

(d) Second level, first cycle (entry into secondary level, inclusive of those completing the lower stage of secondary education);

(e) Second level, second cycle (entry into the higher stage of secondary education, including both those who did not complete secondary level and those who completed secondary level but did not proceed to post-secondary studies);

(f) Higher education (any entry into higher education including completion of a full course of post-secondary studies).

83. This classification should be simplified and oriented more fully to the needs of manpower planning. Basically, one is interested in ascertaining the following information for populations out of school aged 25 and above:

(a) With respect to educational levels, what proportion have completed each level, that is, how many adult women have completed primary, secondary, higher education? The current classification is inclusive of both entry into and completion of the various levels;

(b) With respect to years of schooling, how many years of schooling have adult women been exposed to independent of levels/cycles completed? Because of differences among countries in the number of years contained in each cycle, the designations first cycle, second cycle and so on are not very helpful in terms of reflecting actual years of schooling.

84. Specifically, then, it is suggested that statistics on educational attainment for both female and male populations within a country should be developed and compiled to (a) measure current completions and (b) analyse the effectiveness of the educational system. Current series on the out-of-school population refer to the level and the years completed by persons who have left the regular education system. These statistics should also include:

(a) Completion rates by broad educational level for men and women, that is, the proportion of male and female populations who have completed primary, secondary and higher education;

(b) Number of school years completed regardless of the particular level attained. This measure obviates difficulties in attaining strict comparability between societies with respect to what constitutes primary and secondary levels and so on.

85. Completion data are a good measure of vertical and horizontal equality/inequality in educational development between the sexes. Such data are more sensitive to sex differentials in attrition caused by higher priority being placed on a boy's education and greater responsibility being assigned to girls/adolescent females for housework and child care (41).

3. Continuation

86. The level of education completed is naturally linked to a person's capacity to remain within the educational system and to advance to higher levels of education. It is the capacity of the current school-age population to remain in the educational system that is of major concern here. With respect to populations aged 6-24, including both persons attending school and those who have withdrawn from the regular school system, three important measures of educational continuation should be noted:

(a) Completions and completion rates, that is, the number of people and the proportion of those enrolled who complete a given level each year;

(b) Retention rates, which will indicate at which stage of the educational cycle retention is least problematic, or conversely, at which stage dropping out is most likely to occur;

(c) Transition rates, which will indicate at which stage of the educational cycle advancement to a new level is most or least likely, that is, from primary to secondary, from secondary to higher, and intermediate transitions, where applicable. 23/

4. Equality of educational opportunity

87. There have been many concerns expressed regarding inequalities in the educational system between the sexes with respect to opportunities and programme options. The extent to which women have equal opportunity with men with respect to educational programmes, educational options and educational standards can be measured by:

(a) The incidence of segregation by sex in the educational process, as indicated by the number of single-sex schools, as opposed to coeducational institutions, and the enrolment of women in each type of institution; and

(b) The prevalence of sex-differentiated educational specialization and sex biases as reflected in curriculum development in single-sex schools and coeducational institutions.

88. Single-sex schools for women can be compared with those for men as well as with coeducational institutions in respect of the following:

(a) Course offerings;

(b) Differences in curricula;

(c) Differences in educational requirements and standards for admission, performance, graduation;

(d) Availability of areas of specialization;

(e) Explicit/implicit streaming of pupils/students;

(f) Availability of single-sex schools for girls, as compared with those for boys (that is, are girls schools in the private or public sector in equal proportion to boys schools?).

89. Within a universe of coeducational institutions the prevalence of sex differences can be measured by developing statistics on the following:

(a) Differences in admission requirements for girls and boys;

(b) Sex differences in the distribution of enrolment by field;

(c) Sex biases in curricula, standards and programme options;

(d) Implicit/explicit sex specialization and streaming;

(e) Unfavourable/favourable portrayal of women and girls in teaching materials. 24/

C. Measuring women's performance in education and training outside the regular education system

90. Educational statistics have not been sensitive to new trends emerging in developing societies towards greater reliance on training outside the regular education sector, 25/ leading to (a) the expansion of basic education programmes for school-age and adult populations outside the regular school system and (b) the proliferation of vocational training programmes intended to provide marketable skills to educationally disadvantaged adults. Neither of these important developments is being accounted for in current measurements of educational performance.

91. For adult women in particular, especially those who have been bypassed by the regular education system, vocational training could signify an important breakthrough. Hence, there is a critical need to establish an accounting system with the following objectives:

(a) To provide information on women's "potential" access to vocational programmes, focusing in particular, on restrictions on admission by virtue of age, residence, marital status and the like;

(b) To account for actual female participation in basic education programmes and vocational skills training centres;

(c) To assess the extent to which women have equal access with men to training programmes that provide marketable skills and the potential to develop income-earning capacities outside domestic-related fields.

1. Literacy and related basic education programmes

92. With respect to women's access to, and participation in, literacy and other, similar basic education programmes outside the regular school system, information needs to be compiled on the following:

(a) Current enrolment and attendance;

(b) Previous educational attainment;

(c) Completions;

(d) Duration;

(e) Single sex or coeducational;

(f) Content, such as:

(i) Simple literacy;

(ii) Functional literacy;

(iii) Religious education;

(iv) Arithmetic;

(v) Skills training in domestic sciences;

(vi) Skills training for employment and income generation in modern sector activities.

2. Adult education and training

93. Because of the importance of out-of-school and adult education and training in improving one's employment, indicators of women's access to, and performance in, such programmes should be developed, which would specify the following:

(a) Current enrolment and attendance;

(b) Previous educational attainment;

(c) Completions;

(d) Duration;

(e) Implicit or explicit requirements (such as age, marital status, educational background);

(f) Level of programme;

(g) Programme content:

(i) Skills training in domestic sciences;

(ii) Skills training in income-generating activities in the traditional sector;

(iii) Skills training for income-generating activities and employment in the modern sector;

(h) Accentuation of gender differentiation through:

(i) Single-sex or coeducational programmes;

(ii) Exclusivity/emphasis given to sex-typed training.

94. Statistics on women in adult education and training programmes by field of study can provide a sensitive measure of a trend towards equality between the sexes. Training for women has traditionally been restricted to certain areas that confer low-status jobs and low earning capacity on women, that is domestic arts, sewing, crafts and the like. For men, the system has provided marketable skills in industrial/technical areas because of stereotypical beliefs about women's inability to cope with, or lack of interest in, mechanical and related trades and skills (19, 43).

D. Measuring the linkage between women's education and work

95. Statistics on school enrolment and attendance provide information about the relationship between educational supply and access to education. Little is known, however, of the actual relevance of educational attainment to women's life options. In what way, for example, do a woman's education and training enhance her employability in actual and potential terms? 26/ This is a whole new area of inquiry which should be explored on an experimental basis before attempting to adopt a systematized format for all data collection practices.

96. One might expect women's lack of education (relative to men) to work to their disadvantage in the occupational recruitment process, since women do not have the necessary skills to compete in the labour market. In addition, women may experience discrimination after entering the labour market, as in cases where they possess educational characteristics similar to men's and yet are denied access to the same occupations or jobs. These tendencies need to be explored.

97. Four areas of inquiry are critical in any attempt to measure linkages between women's education/training and work and to assess the extent to which linkages between education and work manifest themselves differently for women and men. These areas are the following:

(a) The empirical fit between women's educational qualifications and the actual jobs they hold (or have last held) and how this compares with the experience of men. This relationship provides an education-specific employment statistic and measures discrimination tendencies in the labour market;

(b) The correspondence between women's current educational and training experience and the currently identified labour market needs in a country, in comparison with that for men. This relationship will measure women's potential employability in terms relative to men;

(c) The relationship between education and training and male and female unemployment rates;

(d) Women's perception/assessment of what type of education and/or training received has helped them in obtaining a job and improving their earnings.

98. However, before appropriate indicators for these concerns can be selected and compiled, there are serious problems related to current gaps in data and methodological ambiguities that need to be overcome. Some of these problems are listed below:

(a) Inadequate basic female labour force data resulting from sex biases, distortions and underestimations in the reporting of women who are economically active;

(b) The difficulty of finding country surveys conducted by national statistical agencies that provide matching data on educational background and work history. Country surveys include detailed information on one or the other, but rarely both;

(c) The absence of employment data broken down by detailed occupational categories. Much of the work history information in survey data is not systematically recorded by detailed occupational category, nor do all censuses provide cross-tabulations in this amount of detail. Detailed information on specific jobs performed is needed to establish meaningful linkages between the education and employment variables and to construct indexes of educational and labour market discrimination;

(d) The lack in certain countries of projections on the structure of future labour market needs, in order to measure the "potential" employability of women and men in relation to their prior and current educational and training experience;

(e) Inadequate unemployment statistics that make it difficult to measure systematically the education-unemployment relationship. Governments often rely on data collected by labour exchanges and other agencies that serve only a fraction of the total labour force, as a basis for extrapolation.

99. The subject of unemployment and education is gaining increasing importance because of the evidence of high levels of unemployment among women (44). Theoretically, the relationship between the two variables could be negative (more education appears to improve chances of employment), positive (more education makes people less employable) or curvilinear (the rate of unemployment rises with completion of secondary education but declines for university graduates). Any of these patterns can vary considerably by sex. The differences may in part be artificial because of systematic biases in the reporting process. The unemployment of well-educated women and discouraged workers, who are not so well educated, may both be prone to be underreported. The extent to which this occurs is open to empirical investigation.

III. WOMEN'S ECONOMIC ACTIVITY AND LABOUR FORCE PARTICIPATION

100. This chapter considers the implications of the resolution concerning statistics of the economically active population, employment, unemployment and underemployment adopted by the Thirteenth International Conference of Labour Statisticians in October 1982 and also draws on recommendations for a building-block methodology as an alternative approach to the collection and presentation of labour force data (20, 21, 23). In some cases an approach different from that adopted by the Conference is considered. The discussion in this chapter is organized mainly around issues related to the measurement of the actual female labour supply in terms of women currently or usually at work, including the underemployed. Issues related to unemployment, another dimension of labour supply, are also discussed.

A. Revised international recommendations on labour statistics

101. The conventional conceptual framework and data collection systems used to measure productive activities and labour force behaviour, based on the 1954 and 1966 resolutions on labour force statistics of the International Labour Organisation, 27/ have been unable to capture adequately the particular manner in which women in developing economies relate to the world of work. The effect of this has been the underestimation of women's employment needs and the undervaluation of their contribution to the household and to the national economy. The resolution adopted by the Thirteenth International Conference of Labour Statisticians takes great care to rectify this tendency. In fact, the new recommendations must be carefully implemented in statistical systems if the strong tendency in the past to underestimate the extent of women's participation in the economy is not to turn towards overestimating the economically active portion of the female population.

102. The 1982 resolution rectifies several areas in which sex biases in the labour force count in national censuses and surveys were previously very substantial (79). Departing from the 1954 and 1966 resolutions, the 1982 resolution introduces the following:

(a) Two approaches to measuring the economically active population, one based on the current activity status and the other on the usual activity status. While the former approach is based on a brief reference period (one week or one day), the latter approach identifies employment or unemployment status on the basis of the major part of 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 the agricultural and informal market sectors than would a simple measurement based on current activity status; 28/

(b) A modified approach to measuring unemployment in certain situations, based on relaxing the criterion of "seeking work" used in the standard definition of unemployment and, thus, relying essentially on the criterion of "availability for work". Each country is to apply the latter criterion according to national circumstances. Previously, only the first of these criteria was applied, and its use excluded many women from the labour force and unemployment statistics. The "seeking work" criterion does not always lend itself to application in developing economies, particularly in relation to women, because formal channels such as going to government offices, applying formally, registering with unemployment agencies and the like are not widespread or necessarily used in obtaining work; 29/

(c) An operational definition of visible underemployment, replacing part of the recommendations of the 1966 resolution. Invisible underemployment is defined in terms of the relationship between employment and income. However, the 1982 resolution does not recommend any statistical measures for this relationship. It is hoped that analytical studies of invisible underemployment along these lines will more accurately reveal the magnitude of the underemployment problem among women. Application of the visible underemployment criterion alone works to the disadvantage of women because women more than men qualify to be recorded as being fully employed by virtue of long hours of work, yet the incomes accruing to women are below prescribed levels. Without consideration of the income variable, women's underemployment is underestimated, and the sex breakdown of the underemployed is misrepresented (70, p. 43);

(d) Explicit inclusion of all of the male and female population working on own account and as unpaid family workers, for whom earlier practices were often inappropriate, thus rectifying the tendency in some cases to associate the labour force with wage and salary earners only. Thus, the concept of self-employment as it now stands lends itself to the inclusion in the labour force of unpaid family workers and subsistence producers who satisfy the same minimum one-hour requirement as wage and salary earners and whose production constitutes an important contribution to total household consumption. 30/

103. With this background, measures of the actual supply of female labour are discussed below.

B. Measuring and describing the actual supply of female labour

104. The development of sensitive indicators to measure and describe the actual supply of women's labour is necessary for three purposes:

(a) To take stock of the female labour resources available for the production of goods and services;

(b) To understand the structural location of women in the labour market system;

(c) To inquire into the relationship between women's work and income and, where relevant, to estimate the extent of economic hardship.

105. There are several modifications that need to be made in data collection systems at the level of censuses, surveys and open-ended interviews as a prerequisite to achieving these objectives. The discussion below will indicate where the modifications apply; census analyses, labour force surveys or in-depth studies.

1. Actual amount of time worked

106. With respect to the female labour resources available for the production of goods and services, it is important to establish the particular relationship that persons have to an economic activity.

107. In the census format there is need to differentiate between "productive female labour available at one point in time" (as indicated by the short-term reference period) and the "number of women available to offer their labour for the production of goods and services". This distinction is achieved to some degree by the inclusion of questions on current and usual occupation/activity. However, it is important to establish further a minimum time of involvement in an economic activity as the criterion for determining the actual availability of female labour in a given sector or occupational category. Thus, an additional question is necessary in labour force surveys in order to obtain a reliable measure of the approximate amount of time, for example, in terms of weeks and hours a week, that women have worked in their usual occupation over the past 12 months and during different seasons. 31/

2. Classifications related to status in employment

108. Women's location in the production system needs to be specified by expanding and detailing categories related to the status in employment classification. Particular emphasis should be given to measuring women's integration in the labour force or their marginality. Two measures are considered below.

(a) Earning capacity of worker

109. In order to reflect the earning capacity of the self-employed in the labour force, a distinction should be made from the outset in the self-employed category in census and survey instruments between recipients of income and unpaid family workers. This differentiation will reveal, particularly in the case of women, the extent of worker marginality and will bring out one dimension of the income-employment relationship.

(b) Status in employment classification

110. The following additions to the standard status in employment classification, which could be introduced into census and survey formats, should be considered:

(a) Wage earner/salaried employee:

(i) In general government;

(ii) In public enterprises;

(iii) In private enterprises;

(b) Employer;

(c) Self-employed/own-account (without assistance of other workers);

(d) Unpaid family worker;

(e) Member of a producers' co-operative.

111. In addition it is proposed that:

(a) For own-account workers the following should be distinguished in surveys:

(i) Women who carry on wholesale and retail trade activities;

(ii) Women who work in the production of other services;

(iii) Women who work in the production of goods;

(b) Care should be exercised in using the unpaid family worker category. The 1982 resolution calls for the inclusion in the self-employed category of all unpaid family workers who satisfy the minimum one-hour requirement. This recommendation has caused some concern in that in some countries it could result in the inclusion of virtually the entire rural female population in the labour force, thereby artificially inflating statistics on women workers, though this has not yet been demonstrated empirically. Therefore, it is important to ensure that the criterion for inclusion rests on the productive aspect of the work that unpaid labour contributes to the production process as distinct from household tasks.

3. Status in employment in agricultural activities

112. There is also a need to establish status in employment categories for agricultural producers that differentiate the forms of the relationship of women to the land that they cultivate. For this purpose, the following subgroups for the international status in employment classification were considered, among others, by the Ninth International Conference of Labour Statisticians but not formally adopted (22, pp. 36 and 37):

(a) For employers in agricultural activities:

(i) Owner-holders;

(ii) Tenant-holders;

(iii) Sharecroppers;

(b) For own-account workers in agricultural activities:

(i) Owner-holders;

(ii) Tenant-holders;

(iii) Sharecroppers.

Employees in agricultural activities would not be further subdivided.

4. The informal sector

113. Special attention needs to be devoted to clarifying the relationship of women to the informal sector of the labour market and how this relationship differs from that of men. The Thirteenth International Conference of Labour Statisticians did not directly address this issue, and present practices related to data collection and analysis of census results are not helpful in clarifying the relationship. The classifications of industries and occupations in current use are of little help in distinguishing many informal sector activities that women engage in. Revision of the International Standard Classification of Occupations would be a major step towards detailing precisely these types of activities. However, the completion of a new classification will take some time, and it will first be necessary to conduct in-depth inquiries regarding the specifics of women's and men's informal sector activities to ensure that the revised classification will reflect and be applicable to the unorganized and small sectors of the economy.

114. For the immediate future it is suggested that survey instruments should differentiate formal and informal sector activities, for example, by obtaining information on the size, as well as activity, of establishment, particularly for workers in industry. 32/ As a first approximation, establishments in industry may be classified along the following lines:

(a) Cottage industries: less than 10 workers (informal);

(b) Small-scale establishments: 10-19 workers (informal or formal);

(c) Medium-scale establishments: 20-99 workers (formal);

(d) Large-scale establishments: 100 or more workers (formal).

C. Measuring and describing the underemployed

1. The problem of measuring underemployment

115. Conceptually the problem of measuring underemployment has been related variously to (a) the difficulty in establishing a dividing line between adequate and marginal employment; (b) inconsistencies in applying the different criteria for determining "underutilization of labour"; and (c) the establishment of an equivalency rate between unemployment and underemployment.

116. Various attempts have been made to measure underemployment, particularly the visible portion, using the labour utilization approach and, more recently, the labour time disposition approach as methodological frameworks. The labour utilization approach has been criticized because it combines into a single measurement three different components that are not necessarily related: low income (productivity), input considerations (minimum time) and mismatch between education and employment.

117. The resolution adopted by the Thirteenth International Conference of Labour Statisticians, which distinguishes between visible and invisible underemployment, should help to clarify operationally what exactly is to be measured. In measuring the invisible dimension, the focus should now be on the relationship between employment and income. The visible dimension comprises all persons in employment

"involuntarily working less than the normal duration of work determined for the activity, who were seeking or available for additional work during the reference period" (23). Although it is easier to measure visible underemployment than invisible underemployment, the measurement of the invisible dimension is nevertheless expected to present difficulties with respect to rural women, particularly those who are own account and unpaid family workers. The availability of women in these two categories for additional work may be difficult to determine.

118. Experience up to now - based on responses elicited from women interviewed in surveys that have not clearly distinguished between visible and invisible underemployment as defined in the 1982 resolution - has led to the identification of various problems in reporting the extent of women's underemployment. For example:

(a) There is a lack of congruence between the number of hours worked and the income obtained, particularly in the case of women. Women qualify much more than men do to be recorded as "fully employed" by virtue of long hours of work, yet the incomes accruing to them are below the prescribed levels. Estimates of underemployment and of unemployment equivalents of underemployment based solely on hours worked without taking income into account will understate women's underemployment and misrepresent the sex breakdown of the underemployed (70, p. 43);

(b) The expressed desire for additional work is often unrelated to the number of hours worked, as measured by the criterion of economic activity. On the one hand, in some cases it has been found that workers putting in 60 hours or more of work have expresed a desire for additional work. On the other hand, wage earners working short hours do not always desire additional work. They may be working short hours because of other non-economic commitments or they may have other sources of income.

119. There have also been problems with the labour time disposition approach that impinge upon women. That methodology has produced unreliable responses along the following lines:

(a) Women tend to underreport the number of hours they have worked - a fault that can in part be attributed to the definition of work adopted in the surveys and in part to women's lack of self-definition as economic beings;

(b) Proxy respondents, particularly when a male in the household is interviewed instead of a woman, misreport the actual amount of time women put into work, either intentionally (because of cultural reasons) or because they are ignorant of the actual work that women do (44).

2. Proposals for improving measurement of the underemployed

120. Precise measurement of the size and characteristics of the underemployed labour force - both male and female - is complex and, in general, the data required are difficult to obtain. Survey information can provide an initial approximation of (a) the magnitude of the problem, (b) the population most affected and (c) types of economic activities in which underemployment is most visibly located. Invisible underemployment is particularly difficult to assess because in order to establish the relationship between income and employment, it is necessary not only to obtain

income data but also to control for education, age, occupational experience, productivity and labour market demand.

121. Within the realm of what is feasible the following are suggested for survey studies:

(a) Applying the labour time disposition approach, rectifying the problems noted above. Information should be collected on hours worked for a short reference period and on days worked over a long reference period. Production for own consumption (subsistence work) should be distinguished from other work, for pay or profit. The time dimension provides a composite measure of both current underemployment and unemployment. The fact that a one-week reference period can be divided into seven days has the effect of providing seven observations per person, resulting in greater stability and accuracy in the aggregate;

(b) Complementing the labour time disposition criterion with an income-specific approach, given the reported lack of congruence between the time spent by women on work and their earnings;

(c) Expanding labour force surveys to include areas of inquiry that will make them a more sensitive instrument for describing the unemployment and underemployment of women. Large-scale surveys can do this by:

(i) Assessing work patterns by reference to present and past work experience (behavioural data);

(ii) Eliciting subjective responses on women's willingness and capacity to work (stated preference data);

(iii) Explicitly taking into account women's work on subsistence activities and competing responsibilities for household activities not considered economic, such as childbearing, child care, housekeeping and preparation of family meals.

Such information can more positively distinguish among "passively unemployed", "underemployed" and "discouraged worker" categories; help identify visible underemployment; and provide a clearer indication of whether women's part-time employment status is one of choice (a widely held conviction) or whether it is imposed on them because of their marginal status in the labour market.

D. The relationship between employment and income

122. The outcome of the Thirteenth International Conference of Labour Statisticians suggests that work is necessary in the area of measuring the relationship between employment and income. The International Labour Organisation is undertaking new work in this area, but a great deal of work and contributions from national statistical offices are also required.

123. This subject is of paramount importance for developing indicators related to women. There is a great need to introduce measures that will reflect the manner in which the economic opportunities structurally available to women relate to their growing economic roles and responsibilities for family survival. Several techniques can be considered:

(a) Introducing a long (12-month) reference period in future censuses and surveys, which will allow a more complete picture to be established for the earnings obtained from work over time, which is not feasible with a one-week reference period alone;

(b) Making use of regular household/labour force surveys to obtain more up-to-date and regular information on:

(i) Stability of women's work and their earnings;

(ii) Estimated income and expenditure;

(iii) Extent of economic hardship as measured by relating employment conditions to earnings;

(c) Initiating in-depth studies among small populations in social settings characterized by different economic/income-earning patterns. Some of the following topics can be explored in these studies:

(i) The nature of work engaged in by women in terms of periodicity, permanence, seasonality;

(ii) The status of women workers (wage earners, employers, salaried, self-employed and so on);

(iii) The method of payment (in cash, in kind);

(iv) The amount earned (per time period, per piece and the like);

(d) Introducing into the labour time disposition methodology an income-specific component for each activity in which women are reported to be economically involved.

124. Combining the time and income dimension will yield a measure of women's income-earning capacity that is better than aggregate-based estimates of hours worked by women over a monthly period.

IV. INCOME AND INCOME DISTRIBUTION

125. Recent attempts to improve income distribution statistics through household surveys have emphasized (a) the integration of income and expenditure surveys into a permanent household survey programme and (b) better measurement of specific types of income (particularly income in kind). 33/ In some countries (Botswana and Sri Lanka, for example) the household sector is disaggregated according to socio-economic criteria for use in social-accounting matrices in national accounts. Special income analyses are beginning to focus in greater detail on how income distribution is determined and how it is related to occupation. Increasing efforts are being made to measure in more specific terms the components of income and the income of individual earners. In particular, the compilation of statistics on women's income requires that individual income be measured.

126. The United Nations provisional guidelines on statistics of the distribution of income (49) are mainly concerned with household income, but they also recommend that, whenever possible, the individual should be used as the statistical unit in recording income. At the same time the guidelines recognize that problems may be encountered in recording individual income when unincorporated enterprises and property are owned in common. Partly owing to these problems, income surveys have fallen short of including information on women's incomes. The measurement of women's income and the effect of including their income in measurements of total household income and in income distributions for total populations have not yet been investigated in any dept. However, current concerns with the development of social statistics and indicators on women in order to describe their changing economic roles and responsibilities have given rise to a demand for income data to be disaggregated by sex and for special efforts to be made in income surveys to identify women's income in the household. The availability of such data can only make a positive contribution to the refinement of income-distribution statistics.

127. The estimation of women's income has been a problem, particularly in developing economies. First, there are conflicting estimates of earnings, confusion in identifying sources of income and income in kind, and conceptual difficulties in ascertaining the income effects of access and ownership variables and in assigning a value to production for own consumption. Secondly, the recording of women's income has often suffered from the use of concepts and survey methodologies that focus on the household as the unit for income and welfare analysis. Thirdly, there may be conscious or subconscious misreporting of income on the part of women or proxy respondents, who may emphasize the economic activities of male earners and thus neglect to account properly for the work, productivity and income of female earners. Fourthly, surveys, are often faulty in assuming that monetary income alone is a good measure of well-being, overlooking the importance of non-monetary exchanges in peasant agriculture and the critical part of such transactions in household economic life (5).

128. Section A deals with measures of income that more adequately take account of women's contributions. Special emphasis is given to income from subsistence activities (that is, production for own consumption. In section B, measures needed to describe control of the use of income are discussed. Finally, factors that affect income generation are identified in section C, in particular access to, and ownership and control of, productive resources.

A. The income dimension

129. There are four areas of special concern for which appropriate statistics can be developed and complied to measure women's income. These areas are listed below:

(a) Measurement of women's individual income: this information is needed to construct a women-specific income-distribution curve, which can be compared with a male-specific income-distribution curve, in order to identify sex inequalities in income;

(b) Measurement of women's contribution to the household economy and family well-being: this information will make it possible to analyse the relative importance of women's income to the well-being of households;

(c) Measurement of income levels of women heads of household and of households headed by women: the individual income of women heads of household should be compared with the individual income of women who are not heads of household and with the individual income of male heads of household, and the income level of households headed by women should be compared with that of households headed by men;

(d) Measurement of income from production for own consumption.

Each of these four areas is discussed below.

1. The measurement of women's individual income

130. While income is measured on the basis of the components of income received by individuals and households, which income items to take into account in studies of personal income and income distribution is far from obvious. Different countries use different income concepts in their statistical compilations. However, the provisional guidelines of the United Nations (49) clearly set out components of income that can be used by countries to develop income statistics. These guidelines are based on, and are, as far as possible, consistent with, the System of National Accounts (SNA) and the System of Balances of the National Economy (MPS).

131. Women as well as men derive income in cash and in kind from a variety of sources: direct earnings, property and investments, and benefits and transfers. The sum total of the income that women receive from these various sources constitutes their income base. The guidelines designate the following components: (49, p.11)

1. Primary income

(a) Compensation of employees

(i) Wages and salaries

_a_. In cash

_b_. In kind

(ii) Employer's contributions to social security and similar schemes

(b) Income of members from producers' co-operative

(c) Gross entrepreneurial income of unincorporated enterprises (in cash and in kind, including production for own consumption)

2. Property income received

(a) Imputed rents of owner-occupied dwellings

(b) Interest

(c) Dividends

(d) Rent

3. Current transfers and other benefits received

(a) Social security benefits

(b) Pensions and life insurance annuity benefits

(c) Other current transfers

Less

4. Direct taxes paid

5. Social security and pension fund contributions

(a) Social security

(b) Pension fund.

132. In measuring income in developing countries on the basis of the above income components, special efforts need to be made to identify the following:

(a) The value of wages and salaries that are received in kind (such as free or subsidized housing, food and the like);

(b) Gross income from entrepreneurial activities, including income from the sale or barter of commodities in the formal and informal sectors of the economy;

(c) The value of household production for own consumption that is to be included in household income;

(d) Transfers received in cash and kind from absent family members, other households and from the community.

2. Women's contribution to household income

133. As indicated in the introduction to this chapter, problems are encountered in identifying individual income within total household income, as in the case of entrepreneurial income where unincorporated enterprises may be owned and jointly operated by several family members and of income from property when property is

owned in common. Increasingly, however, as women enter the rural and urban wage sectors, they are becoming individual income recipients, engaged in production activities, the income derived from which is clearly separable from that of other household members. Where this is the case, it is important to estimate the contribution that women make in cash and in kind to total household income.

134. There are a variety of ways in which women contribute to household income. This contribution can be estimated on the basis of the following indicators:

(a) The amount of cash income that women receive and its use;

(b) The cash equivalent of income in kind that women receive and its classification by type of good or service (payment in the form of housing, food, clothing, health services and the like);

(c) The monetary value/income equivalent of economic activities that women perform for the household "free of charge" and that under other circumstances would have to be paid for (see section 4 below for a discussion of which activities are to be included).

135. At the same time, it would be useful for various purposes to know the distribution of all household income receipts among household members. Various approaches may be considered to determine this distribution. The simplest approach is to record who is the income recipient in cases where there is clearly only one recipient. This would normally apply at least to all wages and salaries and to some transfers received. Income received jointly by two or more household members would then be considered a special category of non-individual income that would have to be added to the income of all individuals to obtain total household income.

136. If it is desired to disaggregate the so-called non-individual income, the following methods may be considered:

(a) Entrepreneurial income:

(i) Distribution by share of ownership;

(ii) Distribution by relative labour input;

(iii) Distribution equally among all participating household members;

(b) Property income:

(i) Distribution by share of ownership;

(ii) Distribution equally among all owners;

(c) Transfers:

(i) Distribution equally among those whom the transfer is in respect of;

(ii) Distribution equally among all household members.

Information on non-individual income would also be useful for classifying households by number of income recipients.

3. Income levels of households headed by women and of women heads of household

137. In general, the lack of disaggregated data on the characteristics of women who head households and of households headed by women limits the usefulness of censuses and most household surveys for answering questions on the income levels of households headed by women and of individual women who assume family headship. There are few survey data on income disaggregated by sex of head of household and even fewer which are also linked with demographic characteristics of the household, making it even less possible to estimate income levels of households headed by women on a per capita or a per adult equivalent basis (49, p. 26). There is great need at present for such data, since differences between male- and female-headed households are becoming increasingly recognized as an important issue for policy purposes. 34/

138. The following are organizing principles around which income data obtained from surveys related to women heads of household and to households headed by women should be collected and analysed:

(a) The distinction made earlier between the two types of households considered to be headed by women (the male-absentee household and the household in which a woman is the principal source of income) should also be used here. Data should be tabulated separately for each;

(b) Households should be classified on the basis of the most important source of household income, taking all household members into account. This criterion would reflect more accurately changing labour force participation and would respond to the desire to eliminate sex-based stereotypes;

(c) The number of household members and their sex, age and marital status should be specified in order to:

(i) Separate one-person households;

(ii) Compute per capita income;

(iii) Compute income per adult equivalent;

(d) The number and sex of household members who are income recipients and earners should be specified in order to classify households on the basis of whether they have single or multiple income recipients and earners. This general principle is recommended in the United Nations provisional guidelines (49). However, these guidelines do not mention disaggregating income recipients and earners by sex;

(e) The age and marital status of women heads of household should be specified. This is because the degree to which resources and support systems are available to women varies according to their age and marital status, including widowed, divorced, and abandoned or left behind wives of migrants.

139. The individual income of women who are heads of household should be measured on the basis of the same indicators identified above for the estimation of women's income. The income level of households headed by women should be estimated on the basis of:

(a) The income received by the head of household and its use;

(b) The income received by other resident household members and its use;

(c) The income received by the household in the form of transfers from outside the household.

140. The contribution to the household of women heads of household should be measured by the same indicators identified above (see para. 134). The income contributed to the household by other resident household members should be measured by the sum total of income contributed by other members of the household, whether primary or property income. Transfer income in cash or in kind received from sources external to the household includes social security benefits, pension and life insurance benefits and other current transfers.

141. In detailing the various sources of income received by households headed by women from transfers and other benefits the following, in particular, should be noted:

(a) This income can be in cash or in kind;

(b) Transfers from sources external to the household come from public, family and community sources in the form of payments, contributions, interhousehold transfers and remittances. With respect to these, household surveys covering income topics can be expanded to include questions on the following:

(i) Contributions from absentee household members, specifying:

a. Familial role of recipient;

b. Amount contributed;

c. Regularity of contribution;

d. Allocation of contribution;

e. Control over contribution (by the woman head or others);

(ii) Non-household member and community contributions, specifying:

a. Role of contributor;

b. Nature of community organization contributing;

c. Regularity of contribution;

d. Reason for contribution;

e. Control over contribution (by the woman head or others).

4. Measuring income from production for the household's own consumption

142. In the discussion above, household production is treated as one source from which women contribute income to the household by performing "free of charge"

activities that under other circumstances would have to be paid for by the household.

143. The subject of household production has been controversial in that no consensus has been reached as to what extent non-monetary household activities should be considered an integral part of production (see, for example, (12)). Those in favour of an extended concept of household production have drawn attention to a host of extra-market activities performed by women which are claimed to be significant for the household economy and well-being. Failing to acknowledge that such activities are "productive" by not assigning to them a value in the national accounts system, it is argued, has led to a gross underestimation of women's economic contribution. 35/ National accounting systems have been criticized for excluding the value of many outputs produced through non-market activities, particularly in the case of developing economies where, it is argued, a sizeable fraction of output is generated through the household production process (5).

144. Various proposals have been made to expand the measurement of output in the gross domestic product by including additional non-monetary activities in the subsistence and household sectors directly in the national accounts or in supplementary measures of output. This move has not been spurred by any concern about the condition of women, but rather by the notion that such inclusion would provide a better indication of an economy's total output of goods and services than would a measure based on market output alone. The consequences for the statistical picture of the situation of women of including such activities in the measurement of output would be significant. 36/

(a) What is household production?

145. Clearly, there are knotty conceptual problems in defining household production. The questions posed are the following: Out of all the things that people do as part of family/household activities, which should be considered productive? Which of these should be included in the measurement of production? 37/

146. The debate revolves around the "economic" role of household activities (among some, of motherhood as well). No unifying criteria have as yet been agreed on to determine which household activities produce goods and services, which are productive or unproductive, which generate economic value or how household activities should be measured in economic terms (5). A typical classical definition limits household production to unpaid activities that are carried on by and for household members and that might be replaced by market goods or paid services if circumstances such as income, market conditions and personal inclinations permit it.

147. Recent efforts have been made to further specify the concept of household production but have led to considerable polarization. One position seeks to broaden the definition to encompass not only productive activities in the conventional sense (home agriculture, crafts and the like), but also (i) home services, such as child care and breast-feeding, and (ii) activities that might otherwise be considered leisure (playing with children, going to church and so on). 38/ The more restrictive position limits the concept to income-earning activities that are carried out in and around the house, though they may be wholly or only in part for household consumption (35). Time-use studies are important for assessing the importance of such activities. In addition, volunteer work is a special category of activity that is productive but does not contribute to the income of the individual worker.

(b) Measuring household production

148. Some specialists argue that if household production is to acquire legitimacy as a measure of income contribution both to the household and to the national economy, it must be restricted to those non-monetary activities that have an "own-account production value", that is, such activities must have an economic referent. At a minimum the criteria for designating an activity as productive in the national accounts, that is, economic sense, should be based on the capacity to produce goods and services that (a) have the potential to circulate in the market, (b) are potential objects of trade and (c) are valued economically as distinct from bringing emotional satisfaction. Others argue that such a concept would be too broad and thereby undermine the usefulness and credibility of the national accounts for purposes of economic policy and analysis.

149. The International Standard Industrial Classification of All Economic Activities (ISIC), 39/ as it now stands, would not be a good basis on which to identify types of non-market activities performed by women that can be counted as "economic" or to derive measures of income. While the ISIC is based on a careful examination of activities judged to be economic in a large number of countries, it is questionable whether the activities included are representative of rural economies in developing countries in general, and more specifically whether the ISIC is sensitive to non-market activities that women perform. Research directed towards identifying and rectifying possible biases in this respect should be pursued before the ISIC should be considered a reference point.

150. Ultimately, it is a matter of statistical convention where the line is drawn between economic and non-economic activities, that is, which non-monetary activities should be assigned a value and included in household income. The guidelines on income distribution statistics (49) follow the recommendations provided in the System of National Accounts, 40/ according to which household primary production, processing of primary products and production of capital goods should be accounted for as entrepreneurial income, whether the output is for own consumption, for own capital formation, for barter or for sale for money. Non-primary commodities produced and consumed in the household should be included only if they are also produced for the market.

151. The table below lists some important activities related to subsistence production and their coverage in the System of National Accounts. The list is drawn from studies reviewed by national accountants in developing countries and incorporates the findings of two studies on national accounting related to subsistence output (38, 53). Possible biases appear with respect to activities recommended for exclusion from the System of National Accounts on the grounds that they are not closely connected with primary production or fixed capital formation. The four activities excluded are performed mainly by women: storing crops for household consumption; carrying water for household use; dressmaking and tailoring for household members; and handicrafts for household use. All four are productive and have a market potential that would qualify them to be counted as income. Since the production value of household subsistence activities in many countries is based only on those activities that qualify for inclusion in the System of National Accounts, it is crucial that the System's coverage be reviewed and revised to ensure that productive activities carried out by women are taken into account. Only then will it be possible to identify and value objectively own-account production activities that represent the efforts of women as well as those of men.

Coverage of principal types of subsistence production in the System of National Accounts

A. ALL TO BE INCLUDED

1. Primary production

Animal husbandry
Growing field crops, fruit and vegetables
Producing eggs, milk and wood
Hunting animals and birds
Catching fish, crabs and shellfish
Cutting and gathering firewood and building materials
Collecting thatching and weaving materials
Burning charcoal
Mining salt
Cutting peat

2. Processing primary products

Threshing and milling grain
Making butter, ghee and cheese
Slaughtering livestock
Curing hides and skins
Preserving meat and fish
Making beer, wine and spirits
Crushing oil-seeds
Weaving baskets and mats
Making clay pots and plates
Weaving textiles
Making furniture

3. Fixed capital formation

Construction of dwellings
Construction of farm buildings
Building boats and canoes for fishing
Clearing land for cultivation

B. MAINLY TO BE EXCLUDED

Storing crops for own consumption
Carrying water for household use
Dressmaking and tailoring for household members a/
Handicrafts for household use not involving primary products (e.g., metal hollow-ware, rubber shoes)

---

a/ Where not a part of production for the market.

152. In view of the need for a systematic approach to the development and application of these concepts and the different uses for the statistics, it is proposed to conceptualize household production by means of building blocks, such as the following:

(a) Production marketed for cash;

(b) Production bartered;

(c) Production and processing of primary products for own consumption;

(d) Own-account production of capital goods:

(i) Residential;

(ii) Entrepreneurial;

(e) Production of non-primary products for own consumption, excluding household chores;

(f) Household chores (cooking, cleaning, child care and the like).

Building block (a) would be useful for studies relating to monetary transactions, whereas (a) and (b) together correspond to marketed production. The sum of (a) to (d) is similar to the present coverage of the System of National Accounts and could be used for the maintenance of time series. With the inclusion of (e) a measure would be obtained of household production that is either marketed or marketable. The addition of (f) provides an extended household welfare concept.

(c) Imputing monetary value to household production

153. Irrespective of which items are included in income, values must be imputed to income that is not obtained in cash. Some of the methods that have been proposed for this purpose are the following:

(a) Producers' prices. The general recommendation of the System of National Accounts is that goods and services produced for own use should be valued at producers' prices of similar marketed goods and services. These prices theoretically have the advantage of accurately measuring the opportunity cost of income forgone when producers consume their output instead of selling it on the market;

(b) Retail prices. As the provisional guidelines on income distribution statistics (49) indicate, it may be difficult to obtain producers' prices and therefore retail prices may have to be used. Retail prices represent what the household would have to pay to obtain a commodity if it decided not to produce it;

(c) Value of labour input. The two most commonly used measures are the market alternative approach and the opportunity cost approach. The former involves identifying wage rates for activities similar to the household activities in question. For example, for household chores, the rate for domestic service is used. The opportunity cost approach applies the wage that the individual could earn if the time were devoted to remunerated work in the market rather than to household work.

154. Most measures present operational difficulties when applied in developing countries. Assigning economic values to household production for own consumption on the basis of marketed commodities is impossible in places where household goods are not traded.

155. The opportunity cost approach may be less useful than the other methods in that it is often difficult to arrive at an appropriate time price for women. When women in developing economies are relegated to the low-paid, informal sector of the economy and/or lack access to education, time prices based on alternative earnings will reflect such circumstances. Efforts to value women's time input need to take this bias and related factors into account. In addition, the opportunity cost may be misleading where it is very difficult to find any employment at all.

B. Control of the use of income

156. Although a person earns or receives income, it does not follow that the same person also has control over how that income is used or that all household members benefit equally from its use. Cultural, traditional and family circumstances determine who decides how household income is used and for what purposes. If these decisions are made inequitably, the level of living and the nutritional standard may vary considerably among members of the same household. In such cases it is misleading to adopt household income per capita as a measure of the welfare of all household members. Rather, it is preferable to study the intra-household flow of income. What is of crucial importance is to determine who benefits from the use of income. A person may retain control over some or all of his (her) earnings and production but still use these for the benefit of other household members. Alternatively, a person may turn over income to other household members for their use but still be the beneficiary when the income is spent.

157. Two kinds of studies are therefore suggested:

(a) Studies of who controls the spending of income and consequently determines who will benefit from the expenditure as well as from production on own account. Studies of this kind will provide, for example, information on the extent to which women are in a position to determine what their own income and production should be used for. Cash flows, income in kind and production for household consumption need to be considered, although in the case of income in kind and production for own consumption the only decision to be made is who should benefit;

(b) Studies of the benefits received by each household member. This involves detailed studies of consumption and expenditure in which the final beneficiary is recorded. Studies of this kind would contribute to the understanding of important relationships between income (household income as well as that earned by women) and nutritional status, morbidity, infant mortality and the like. For example, the Indian National Sample Survey is now set up to provide such data.

158. In both kinds of studies, considerable probing may be necessary to obtain the desired information. Great care needs to be exercised in interviewing respondents about control of income, since it is a subject open to varying, subjective points of view. The information obtained therefore needs to be studied carefully.

159. Budget data can play a very important role in examining the validity of the assumption that members of a household share a common standard of living. Budget

data should be broken down by sex to show possible differentials in expenditure on education, clothes, entertainment, medical services and other items. Differentials in welfare among household members can also be inferred from data from nutrition and health surveys (76). Differentials by age and martial status should be analysed as well. It would also be of great interest to have comparable data on poverty and nutrition for lone widows, lone widowers and widows and widowers living within extended family households. These data should be presented in such a way as to make it possible to examine the relative weight to be attached to sex differences and to the influence of living in a one-person household.

160. Focusing the household as the basic unit may have resulted in the exclusion of women household members from the benefits of development programmes which have been aimed at male household heads. Data need to be developed on women's access to development programmes, both for women who are the major economic providers for their household and for those who play a supporting role. It also should be noted that the impact of development programmes is not necessarily the same for women as for men (70), for example, in the case of handloom weaving by women being replaced by machine production by male workers. 41/ Specific data would be needed to evaluate the overall impact of such programmes.

C. Factors conditioning women's actual and potential income: measuring ownership, access to and control of productive resources

161. The development and refinement of measures related to women's income should not be confined to accounting for inflows alone but should include the identification and measurement of factors that condition actual and potential income levels. Those factors can best be conceptualized in terms of ownership, access and control.

162. Individual ownership clearly provides the individual with both access to and control of a commodity. But even if a person is not the owner, he (she) may still have access to a commodity, either free of charge (through borrowing, for example) or at a cost (through hiring, for example). Depending on the agreements made, this access may or may not entail full control over the use of the commodity. Control may have special importance, for example, for benefiting from access to the commodity. For example, in agricultural production, oxen for ploughing and labour for harvesting are in high demand at certain periods of time, and lack of control may result in delayed, less valuable access.

163. Little attention has been paid in developing conceptual frameworks to measure these factors as they affect income and inequality. The problem of restricted ownership may be viewed primarily in terms of class factors. However, community studies provide evidence that issues of ownership, access and control assume greater importance for women than for men because women's relationship to productive resources is more vulnerable. 42/

164. In general, indicators of ownership, access and control measure differences at the local level and may not always provide regional or national comparability. In agricultural settings, however, it is possible to construct measures of women's access to a broad range of productive resources that can serve as tools for purposes of comparison across rural areas (81). Among the most widely recognized indicators of rural income, levels of rural living and inequality in developing countries, land, cattle, labour, credit and vocational training have been

identified as the most important factors of production and the strongest determinants of rural income. 43/ Each of these is discussed below.

1. The relationship of women to land

165. The following measures of women's relationship to land 44/ as a productive resource are suggested: 45/

(a) Incidence of landlessness or near landlessness among women in relation to men and among female heads of household in comparison with male heads of household;

(b) Ownership of land by size of holding among women relative to men and among female heads of household in comparison with male heads of household;

(c) *De jure* and *de facto* rights to land by size of holding among women by headship status.

166. Documentation of landholdings by sex enables land to be used as an indicator of women's income status as well as of sexual inequality. Classification of women into economic strata on the basis of landholdings also provides an indicator of socio-economic status and of economic hardship.

2. Cattle

167. The following indicators would be useful for measuring women's productive resources relating to cattle:

(a) Incidence of non-ownership of cattle among women, compared with men, and among female heads of household, compared with male heads of household;

(b) Incidence of ownership of cattle by size of herd among women, compared with men, and among female heads of household, compared with male heads of household;

(c) Number of women who have *de facto* rights to use of cattle, by number of cattle and type;

(d) Number of women who are able to borrow or lease cattle for ploughing.

168. Information on ownership of cattle without specification of herd size and type is not useful because there are particular demands for ploughing. (In the case of Botswana, for example, a minimum of eight oxen are needed for ploughing.) The following classification of ownership and rights to livestock has been developed: 46/

(a) High ownership: herd size sufficient to live off the sale of cattle or to be commercially viable;

(b) Medium ownership: herd size sufficient for successful ploughing;

(c) Low or no ownership: herd size insufficient for ploughing.

3. Labour

169. The labour factor of production refers to the availability of labour either within the household or from extended family members. Where there is no available labour within the household or the extended family, women will resort to hiring wage labour, which decreases their profits considerably.

170. Indicators need to be developed to measure the extent and quality of labour available to women farmers, particularly to women who are heads of household, along the following lines:

(a) Number of household members present whose labour is available, by sex and age;

(b) Number of household members absent whose labour would have been available and their sex, age and migrant status;

(c) Number of non-household members related to the family whose labour is available, by sex, age and wage rate (if any);

(d) Number of outside workers hired, by sex, age, duration and seasonality of employment, and wage rate.

4. Credit

171. Theoretically, credit is available from many sources. Women have been disadvantaged in obtaining credit because they often lack the requirements for collateral stipulated in many countries by formal credit agencies. As a result, they have to depend on informal borrowing arrangements at high interest rates.

172. One indicator of women's access to credit on which data are available for systematic inquiry is membership in co-operative associations, a primary source of credit for men. The incidence of female, compared with male, membership needs to be measured, and separate questions need to be asked for women and men who are heads of household. The Food and Agriculture Organization of the United Nations (FAO) recommends, the use of the indicator "Institutional and non-institutional credit (total and agricultural credit) per household by size of holding and by sex of head of household" (14). This indicator could be further modified to provide data on access of married women to credit.

5. Vocational training

173. Agricultural training, among other types of vocational training and agricultural information are of particular importance as productive resources for rural women.

174. Among the indicators that can be used to obtain information on these income-generating factors is the "number of agricultural extension personnel by sex per 1,000 holdings/holders", which is also recommended by FAO (14).

V. HEALTH STATUS OF WOMEN

A. Principal factors affecting women's health

175. Health depends largely on life-style and environment, and good adult health requires a sound foundation, from foetal development through childhood. This foundation is especially crucial for women, whose specific health needs are so closely related to the continuous cycle of growth, development and reproduction. Attitudes and practices that discriminate against girls from infancy to adolescence have a negative influence on their overall health as women, thus reducing their potential contribution and participation as workers, mothers and members of society.

176. Childbearing imposes additional health needs and problems on women, physically, psychologically and socially. The complications of pregnancy and childbirth and of illegally induced abortion in areas where environmental and health conditions are adverse result in large numbers of female deaths. In developing countries, where fertility levels are high, maternal mortality can be 100 times greater than in developed countries.

177. High fertility has negative effects on the health status of women as well as that of thier infants; fertility regulation is therefore an essential preventive health measure. The ability of women to control their fertility has broadened their options and is crucial to their economic and social status in society and participation in national development.

178. For female adolescents, bearing children at an early age creates serious health and social problems, and their future educational, employment and social opportunities may be severely curtailed. In many cultures very early marriage imposes precocious childbearing on girls.

179. Good nutrition is required throughout life and is vital to women in terms of their health and work. Nutritional anaemia is a major problem for women; in developing countries it is estimated that at least half of the non-pregnant and two thirds of the pregnant women are anaemic. This is particularly serious in view of their heavy work-load, since anaemia has a profound effect on psychological and physical health. Anaemia lowers resistance to fatigue, affects working capacity under conditions of stress and increases susceptibility to other diseases.

180. Maternal malnutrition is also a serious health problem for women, especially for those who have many pregnancies too closely spaced, and reflects the complex socio-economic factors that affect their overall situation. The nutritional status of pregnant women directly influences their reproductive performance and the birth weight of their children, a factor that is crucial to an infant's chances of survival and to its subsequent growth and development. Nutrition also affects lactation and breast-feeding - key elements in the health of infants and young children and a contributory factor in birth spacing.

181. Infections of the female genital tract are numerous and widespread; they constitute a large part of low-grade morbidity among women, contributing to a continuous and physically draining fatigue. These infections are closely related to inappropriate care or poor hygiene in connection with childbirth, abortion or menstruation. They include the sexually transmitted diseases, which are among the most prevalent diseases throughout the world. Being difficult to diagnose in

women, these infections often go untreated, leading to more serious complications later. Moreover, detection and control are difficult because of negative attitudes towards women in relation to such diseases. The consequences of genital tract infections may include infertility. In some areas nearly 20 per cent of women who have pelvic inflammatory infections become infertile.

B. Measurement issues and indicators

182. Assessment of the health status of women requires some target or standard population group to be used for comparison. Comparisons of entirely separate populations of females at a given level of health development are useful for highlighting the prevalence of health problems specific to women, for example, maternal mortality or nutritional deficiencies. However, comparisons of males and females within the same population are likely to yield a much more comprehensive assessment of the relative health and social situation of women, since the sexes coexist in the same social and economic environment (33).

183. Differentials in health status are at least in part a reflection of the way in which the external environment acts to the detriment of one sex more than the other. Sex differentials may be primarily due to broad socio-cultural factors: practices that discriminate against females in some developing societies are an obvious example of how such community-level factors may adversely affect the survival chances of females. Sex differentials can also result from the low priority accorded to the special health care that women need in their reproductive years. Or they may arise from individual health-related behaviour, which is much more within the capability of individuals to change so as to reduce risk factors for chronic diseases.

184. Sex differentials in health status also reflect in part biological differences between males and females that appear to govern the impact of many morbid conditions. In general, given a neutral social environment, females will enjoy better survival chances than males owing to the superior genetic endowment of females. In cases where the socio-cultural environment is characterized by practices discriminating against females, death rates for women at certain ages, principally during childhood, adolescence and the reproductive years, may be equal to or exceed those of males. In either case, it is unlikely that the precise impact of biological versus environmental factors underlying the sex differential in mortality will ever be fully quantified. It is thus impossible to determine with any degree of accuracy or precision the significance of the various possible causes of observed differentials. Nevertheless, sex differentials are a very useful, if imprecise, tool for measuring women's health status.

185. Having considered what it is one is measuring when examining sex differentials in mortality, one needs to look at how these sex differentials are commonly measured. With the advances in indirect methods for estimating mortality levels and differentials and the advent of model life tables, estimates of life expectancy at birth are often made for populations on which there is very limited statistical health information. Unfortunately, model age patterns of mortality generally do not recognize the likelihood of excess female mortality at different ages and thus may well be inappropriate for analysing underlying sex patterns of mortality. Moreover, sex differentials in life expectancy at birth, which are often used as an indicator of the relative health and social situations of males and females, may be relatively insensitive owing to the aggregation of mortality differentials at

different ages. In countries where women are disadvantaged, female mortality very often exceeds that of males during two periods: in early childhood and during the reproductive ages. In extreme cases, this will result in lower life expectancy at birth for females. However, in many instances this situation is masked by lower female death rates in old age. A comparison of selected age-specific mortality rates where these are available is, therefore, likely to be much more informative.

186. Where indirect methods are used to derive survival probabilities from census or survey data, the data upon which they are based should be, and generally are, collected for males and females separately. This will enable survival probabilities to be calculated for each sex separately, thereby highlighting sex differentials in the survival of infants and children.

187. Such sex differentials can reflect several factors affecting the relative situations of males and females. Malnutrition is a leading underlying cause of many childhood deaths ascribed to infectious diseases in developing countries. Where girls are more deprived of available food than boys are, their survival chances will diminish. Similarly, if girls are less likely to receive preventive services, for example, immunization and/or curative health care, their health status will be lower. Thus, statistics on health and nutritional status as well as on access to and utilization of health services should be compiled separately for boys and girls, as such statistics are likely to reveal possible socio-cultural or other reasons for discrepancies in the provision of essential health care and nutrition in childhood.

188. More generally, the overall level of infant and child mortality (for both sexes combined) may also be indicative of the situation of women in society. If women are assigned multiple domestic and social roles and tasks and simultaneously must assume the major burden of caring and providing for their children, then child survival may be impaired owing to the multiple demands made on the mother. This is all the more likely if the interbirth intervals are comparatively small, leading to early age of weaning. Statistics on fertility levels and patterns, especially with regard to the spacing of births, are likely to provide considerable insight into the relative status of women.

189. In the developed countries, although the sex differential in mortality has been widening in this century in favour of females, especially adult females, recent changes in the relative mortality of the sexes from some causes of death point to a possible reversal of this trend in the cases of some leading causes of death. For example, since the mid-1960s rates of mortality from lung cancer in Australia, Denmark, England and Wales, Sweden and the United States of America have been rising faster for women than for men. This is closely related to differential trends in cigarette consumption in the past. In this context, it may be noted that recent surveys of cigarette consumption in a number of developed countries show that the proportion of women smoking is often actually higher than that of men.

190. Overall, perhaps the single most important indicator of the health situation of women and of the social factors that influence it is the maternal mortality rate. Childbearing is an exclusively female risk which reflects a number of factors pertaining to the situation of women, including the availability of legal abortion and the extent, efficacy and coverage of health care during pregnancy and childbirth, the nutritional status of women, the availability of family planning, especially for high-risk mothers, and the consequences of heavy work-loads and repeated childbearing. Where the extent and pattern of maternal mortality are

difficult to ascertain from registration data, it may be possible to make estimates from indirect indicators, such as sex differentials in age-specific death rates (from all causes). Survivorship ratios showing the probability of women reaching age 15 surviving through age 49 based on life-table data are also a useful indicator of the general mortality burden imposed by the reproductive years on women. If the survivorship ratio for females is divided by the comparable ratio for males, the excess mortality burden imposed on women can be assessed. Other alternatives are to include questions on the survival of mothers in household surveys using such techniques as the follow-up approach in multi-round surveys.

191. Ideally, statistics on mortality and morbidity (including impairment and disability) for women aged 15-19 should be broken down more finely by age so that the risks of early pregnancy and the higher risk of mortality for both mother and child at the youngest ages can be more closely monitored. Unfortunately, such a breakdown is generally not feasible in many developing countries, where precise knowledge of age is not common, particularly among those populations experiencing the highest mortality levels.

192. Within this conceptual framework, in addition to the better known demographic indicators such as sex differentials in mortality, the following items may be considered for testing by countries in order to better ascertain the situation of women:

(a) The prevalence of low weight for height;

(b) The prevalence of nutritional anaemia;

(c) The prevalence of other nutritional deficiency diseases;

(d) Low pregnancy weight gain;

(e) The energy expenditure of women especially during the last months of pregnancy;

(f) The intra-family division of labour (agriculture, water carrying and so on);

(g) The distribution of food within the family and its effect on the nutritional status of women.

193. Finally, it should also be kept in mind that sex differentials in ill-health and mortality vary widely among socio-economic, geographical, urban/rural and other population subgroups. This heterogeneity must be recognized when compiling indicators on the health status of males and females at the national level, and statistics should be calculated separately for those population groups most at risk.

VI. SOCIO-ECONOMIC DIFFERENTIATION AND MOBILITY

A. Basic issues and concepts

194. There are serious difficulties in conceptualizing appropriate measures of socio-economic differentiation at the national and international levels for both women and men. Much of the empirical work done by social scientists and statisticians in this field has been oriented towards the developed countries and the better-off socio-economic groups, as well as stereotypes of male socio-economic roles. Although the least advantaged socio-economic groups have been extensively studied in many specialized fields of the social sciences, relatively little work has been done by statisticians to develop and apply a socio-economic group classification to effectively measure differences among these groups, taking particular account of women's roles and activities and socio-economic circumstances in developing countries. It is the recent concern with women as a poverty group and the growing evidence that poor women suffer more acutely from poverty than do poor men that have generated an interest in identifying indicators that will disclose sex differences and socio-economic stratification among the poor.

195. Socio-economic group classifications, where they are used, are typically derived from definitions and classifications of labour force activity and inactivity, occupation and status in employment. Poverty is most often defined and measured for statistical purposes in terms of income and consumption, but where no independent socio-economic classification is used, the concept of poverty is often used interchangeably with that of disadvantaged socio-economic group. Since classifications related to economic activity or inactivity are usually the main basis for socio-economic group classification, their inadequacies with respect to women, some of which have already been discussed, likewise affect the measurement of socio-economic differentiation.

196. One approach to measuring socio-economic differentiation is to use women's occupation as an indirect measure of their status, both overall and relative to men. Available occupational data can be used to construct indexes of dissimilarity and of sex representation to measure inequalities in the occupational structure (by broad occupational categories), which have been used as proxy indicators of sex differentials in socio-economic status (particularly in comparing sex distribution in the professions) (47). Sex differentials in the labour market have not, however, been linked to other indexes of socio-economic status (independent of occupation). The little that can now be said about women's position in the stratification system relates more to their location in the social structure along the lines of social prestige than to their economic standing. As mentioned earlier, the conventional data available even in this respect are descriptive of selective layers of society.

197. Another major difficulty with this approach is that women who are not recorded as being in the labour force may be overlooked altogether in socio-economic group classification or they may be classified according to their last occupation even though the relation of their last recorded economic activity to their present situation may be problematic, at best. A socio-economic classification should take into account all activities, whether or not they are considered economic. The women who are most likely to have been excluded in labour force measurement are those in the low-income working group who are engaged in informal activities.

198. Where women have not been considered to be in the labour force (and in many cases even where they have been so considered), an alternative has been to classify them in the same socio-economic group as their husband. This is objectionable on several grounds: one, it assumes homogamy in terms of a woman's own socio-economic standing and that which is indicated by her husband's occupation. Secondly, this measure precludes the coverage of women who are not currently married.

199. Own occupation has also been objected to as an indicator of women's status on other grounds. In and by itself, it is argued, occupation may not be indicative of socio-economic group because women often pursue occupations that are unrelated to their education and social background - because of either labour market discrimination or because of their personal choice (37). In most cases, unless linked with other factors, occupation is a poor measure of socio-economic group membership for both men and women. It is a weaker proxy indicator of socio-economic differentiation for women than for men because it fails to account for groups of women who do not work and many of those who do work. A broader classification of activities is needed as a referent, particularly to describe sex differences and socio-economic differentiation among the poor, in both rural and urban areas. Ways of doing this are discussed below.

B. Selection and development of series and indicators of socio-economic differentiation, with particular reference to disadvantaged groups

1. Measurement related to socio-economic groups in rural areas

200. The Food and Agriculture Organization of the United Nations has taken several steps to address the problems caused by the scarcity of appropriate statistics to describe the status of specific socio-economic target groups in rural areas, that is, the poorest of the poor, women, small farmers and landless labourers. For the purpose of national reporting to the 1983 FAO Conference on progress in agrarian reform and rural development, FAO prepared guidelines on some recommended socio-economic indicators for national monitoring (14), which were used as a basis for national pilot studies in several Middle Eastern, Asian, African and Latin American countries. The proposed indicators are designed to rectify the lack of data disaggregated by sex, since a major concern of FAO has been to measure the extent of woman's participation in rural development and to trace the impact of agrarian reform and rural development programmes by sex.

201. A series of FAO reports was prepared to evaluate the adequacy of the indicators included in the pilot studies carried out in several countries to monitor and evaluate the role of women, small farmers and landless labourers (12). The need to disaggregate primary indicators not only by sex but also by sex of head of household in order to identify disadvantaged socio-economic groups was strongly emphasized. In the case of women a distinction is made in the report between legal heads of household (widowed and divorced women), and *de facto* heads of household (where spouses are temporarily absent from the home). The reports suggest the addition of other core indicators to be disaggregated by sex and sex of head of household in order to further understanding of the condition of the poor in the rural context.

202. With respect to measures related to low-income and disadvantaged rural socio-economic groups, the FAO reports emphasize the need for the following categories of information:

(a) Because of the precarious relationship of women to land and the fact that land ownership, size of holding, and land rights are in many ways a better measure of socio-economic differentiation than income is, it is important to specify:

(i) Land ownership, size of landholding, and where applicable, rights to land (usufruct), disaggregated by sex, sex of head of household and socio-economic group, in order to identify sex differentials in relation to land; and, in the case of female-headed households, the number of legal and <u>de facto</u> heads in relation to land;

(ii) Types of crops cultivated, disaggregated by sex, sex of head of household and, in the case of female-headed households, by legal or <u>de facto</u> headship, in relation to land ownership, size of landholding and rights to land;

(iii) Ownership and size of livestock herd, disaggregated by sex, sex of head of household and, in the case of female-headed households, by legal or <u>de facto</u> headship, in view of the importance of cattle in certain farming areas (for example, in Botswana);

(b) Given the rapid shift from subsistence to cash economies, the distribution of women by socio-economic group relative to men needs to be ascertained, particularly in relation to men and women's respective locations in the structure of the agricultural and non-agricultural rural economies. Separate data for the agricultural and rural non-agricultural sectors, disaggregated by sex, sex of head of household and, in the case of female-headed households, by legal or <u>de facto</u> headship, need to be collected on the following:

(i) Economic activity rates, in a more comprehensive and reliable form than at present;

(ii) Tasks pursued in each occupational grouping;

(iii) Place of work (farm, plantation, factory, at home and so on);

(iv) Employment status (employer, own-account worker, unpaid family worker, etc.);

(v) Average daily wage rates;

(c) In order to account for the slack season, particularly in the agricultural sector, and the differential way this phenomenon is manifested by sex and how it affects different categories of women, including heads of household, statistics are needed on unemployed workdays as a percentage of total available workdays among agricultural workers. This can be further expressed as:

(i) The average number of weeks/months worked by women agricultural labourers over the year, as compared with male agricultural labourers;

(ii) The number of unemployed workdays (weeks, months) as a percentage of total available workdays among women agricultural workers, as compared with male workers;

(d) Because of the important function that membership in rural organizations fulfils in facilitating access to productive resources (credit, technical knowledge, training and so on) the differential status of women and men in relation to such opportunities should be assessed by including questions on:

(i) Membership of women and men in co-operatives, associations, self help groups and the like;

(ii) Whether or not membership in organizations is open to both sexes or to men only or women only.

2. Measurement related to socio-economic groups in urban areas

203. Little conceptual work has been done on socio-economic differentials among the urban poor, who constitute the majority of the urban population in developing countries. Terms such as "marginal" and "informal sector" are frequently used to describe populations and activities located on the fringes of the urban economy without the amenities of urban life. Little attempt seems to have been made to capture in a statistical sense the urban working class as a category.

204. At this stage efforts should be made to measure the urban poor and to select appropriate indicators of socio-economic differentiation by sex on an experimental basis using information readily available from censuses and surveys. It is advisable initially to concentrate on the economically marginal, the working class and household enterprises. The statistics suggested below to identify persons in these groups can be obtained in part from census information and in a more refined form from survey data. It is hoped that in future survey designs new areas of inquiry will be introduced to capture more accurately the complexity inherent in socio-economic differentiation in urban populations.

205. At this experimental stage, for the purpose of identifyng economic marginality among women - overall and relative to men - it is suggested that the following urban groups should be identified and measured:

(a) Female service workers in private households (not separately identified in the International Standard Classification of Occupations (ISCO), relative to the total adult urban population, to the urban work force and to male household service workers;

(b) Women classified as service workers (ISCO major group 5) who are own-account workers, relative to male service workers who are own-account workers;

(c) Women classified as sales workers (ISCO major group 4) who are own-account workers, relative to urban women workers and to male sales workers who are own-account workers;

(d) Women classified as urban own-account workers, relative to all urban women workers and to male urban own-account workers;

(e) Urban women who are unemployed.

The number and characteristics of women workers whose occupations are unidentifiable or inadequately described should also be explored in depth.

206. The differential position of women relative to men among the working class can be explored by identifying and measuring such groups as the following, preferably using detailed occupational categories:

(a) Women classified as production and related workers (ISCO major group 7/8/9), relative to the total urban work force and to male production and related workers;

(b) Women classified as sales, clerical and related workers (ISCO major groups 3 and 4), relative to all urban women workers and to male sales, clerical and related workers;

(c) Women classified as professional, technical, administrative and managerial workers (ISCO major groups 0/1 and 2) relative to all urban women workers and to male professional, technical, administrative and managerial workers;

(d) The daily wage rates of women urban workers by detailed occupational categories, as compared with those of male workers.

207. Finally, in order to obtain measures of women's urban entrepreneurship, women who are employers should be identified in relation to the total urban work force and to male workers and employers.

C. Measuring mobility and access to opportunities among women

1. Mobility

208. The issue of mobility, especially in developing countries, has by and large not been addressed in statistical conceptualization, data collection and analysis of findings. This is true in the case of both women and men.

209. By definition, stratification status refers to present location in the stratification system and is conventionally measured by observed inequalities in education, occupation and income in relation to socio-economic group. Mobility, however, is a process of change upward or downward and is measured by observed changes in socio-economic group membership and in education, occupation and income in relation to an empirical referent. Thus, one traces such changes through generations, in relation to a marriage partner, across and within socio-economic groups and along ethnic and/or religious lines.

210. With respect to women, first of all it is important to develop statistics and indicators that will trace women's own mobility in relation to other women, to men in their family of origin and, if married, to their husband. Secondly, it is important to determine whether a women's present location in the stratification system - by virtue of her own accomplishments or by marital selection - represents an upward or downward move in terms of social mobility.

211. Conceptualizing the mobility process along these lines points up a need for specific statistics and indicators to describe basic patterns of the following:

(a) Intergenerational occupational mobility between fathers and daughters, to be contrasted with male patterns of mobility; 47/

(b) Intergenerational occupational mobility between mothers and daughters;

(c) Women's intergenerational occupational mobility through marriage (father relative to husband) to be contrasted with men's or women's intra-generational mobility relative to own occupation (see (47)).

212. Comparative statistics and indicators identified should include:

(a) A direct measure of sex differences in occupational inheritance; 48/

(b) A direct measure of differentials in mobility between women and their family of origin;

(c) A direct measure of intergenerational differentials in mobility among women;

(d) A measure of the importance of marital selection as a determinant of women's socio-economic standing.

213. The emphasis on intergenerational mobility rather than on marital mobility alone ensures the inclusion of women who are not currently married. 49/ More important, such an approach focuses the inquiry more sharply on identifying biographical variables that have been instrumental in shaping a woman's own mobility pattern.

214. It should be stressed that in interpreting measures and derived indicators of sex differentials in mobility, account should be taken of the interrelated nature of women's labour force participation and marital status, life cycle stage and, in some contexts, religious-ethnic background.

2. Access to opportunities

215. Family background variables are only one of many influences that shape achievement in the educational and occupational spheres. Women's performance along these lines - more so than that of men - is affected by structural considerations related to equal access to opportunities for education and jobs. The extent to which women have the same access as men to such opportunities can be measured by the incidence of discrimination in education and the labour market.

216. Educational, or pre-labour market, discrimination reflects whether or not women are prevented from acquiring the necessary skills to compete effectively in the labour market. Measures of such inequality should focus on the extent of women's lack of access to certain levels of education, skills, professions and the like, as indicated by:

(a) Explicit denial;

(b) Imposition of restrictions;

(c) Implicit discouragement.

217. Labour market discrimination reflects the extent to which women and men with similar educational and other productivity-enhancing characteristics are treated unequally in the labour market. Indicators of such discrimination are: 50/

(a) Exclusion of women from performing certain jobs or from promotion to certain levels;

(b) Sex differentials in wages for performing the same job;

(c) Mismatch between educational qualifications and jobs among women, that is, where women, but not men, are only able to obtain jobs for which they are educationally over-qualified.

Notes

1/ An overview of potential sources of sex biases in statistics was issued by the United Nations as a working paper in 1980 (ST/ESA/STAT/99). That report analysed possible souces of sex bias in national and international statistical concepts, classifications and definitions.

2/ The following areas of social concern are identified in the United Nations preliminary guidelines and illustrative series for social indicators (52):* A. population; B. family formation, families and household; C. learning and educational services; D. earning activities and the inactive; E. distribution of income, consumption and accumulation; F. social security and welfare services; G. health, health services and nutrition; H. housing and its environment; I. public order and safety; J. time use; K. leisure and culture; and L. social stratification and mobility.

3/ See E/CN.3/1983/18, paras. 11-16.

4/ An attempt to compile male-female comparisons according to a list of development indicators was undertaken by the United Nations Research Institute for Social Development using data for the period around 1970. From a total of 73 "development indicators" it proved possible to compile male-female comparisons for six variables: expectation of life at birth; primary/secondary school enrolment as a percentage of population aged 5-19; vocational school enrolment as a percentage of population aged 15-19; higher education enrolment per 1,000 population aged 20-29; economically active population in manufacturing industries as a percentage of population aged 15-59; and professional/technical and related workers as a percentage of population aged 15-59 (71).

5/ For the theoretical development of the notion of "available options" as an indicator, see (42).

6/ See Malika El Belghiti, "The case of Morocco" and Mere Kisekka "The case of Nigeria and Uganda", in (69).

7/ See Asok Mitra, "The case of India" and Joycelin Massiah, "The case of the Commonwealth Caribbean", in (69).

8/ See Joycelin Massiah, "The case of the Commonwealth Caribbean", in (69).

---

* Numbers in parentheses are keyed to the reference list at the end of the present document.

9/ Resistance to the identification of sex of head of household has emerged on two different grounds. The first position contends that the concept of household/family head is culturally and statistically imposed by Westerners or by Westernized persons of the third world on the developing world. Such a statement is disputed by researchers on family structure and authority patterns in developing countries. The other position see (37) is more applicable to Western countries; it contends that the notion of head of household is meaningless because of the egalitarian relationship in Western forms of marriage.

10/ For a discussion of the linkage between demographic characteristics and household economic standing, see (32, 79). In addition, (6, 31, 36) provide model approaches to identifying types of households and their relative economic situations according to demographic characteristics of the household.

11/ United Nations publication, Sales No. E.78.II.E.6, para. 99.

12/ Another approach to classifying households, which has been developed by the London Policy Studies Institute, involves organizing information about women in the context of their marital status, family life cycle and the like. The approach is referred to as the Minimal Household Unit Survey and has been designed precisely to avoid using one particular person to describe the characteristics of the entire household (37).

13/ Where information on household composition by sex and age is made available in household/income surveys, the female-headed household has been found to be disadvantaged in so far as potential well-being is concerned. A comparison of male- and female-headed households in rural Botswana shows the latter type of household to be smaller, reflecting a paucity of adults, a higher child-dependency burden and a mean income less than half that of male-headed households (without counting remittances received from outside the household) (31). Data on household composition also reveal a coping strategy for female-headed household in some Latin American countries: replacing the "loss" of a nuclear family member by non-nuclear/non-kin residents (46, 74).

14/ In the 1970 Rwanda census, the average size of female-headed compounds was 4.5 persons for women aged 30-39, 2.0 persons for women under age 30 and 1.5 persons for women over age 60. A comparison of older age groups among female- and male-headed compounds showed that elderly women heads of household lived alone, while their male counterparts did not, having anywhere from 3 to 4 persons in their household.

15/ Data on household composition can include the characteristics of adult members in terms of their economic activity and earnings. The 1970 Rwanda census provides this information in its cross-tabulations of heads of household by marital status, by household size and by the number of economically active persons in the household.

16/ In Botswana, women heads of household under age 30 earned incomes comparable to those of male heads of household in the same age group. After age 30 an inverse relationship between age and income appears for women (they earn less), while for men the relationship is positive, their income rising substantially as they get older (31).

17/ Contrary to other findings (6, 81), data from Zambia (28) indicate that divorced women heads of household appear to be better off than widows. The former tend to be younger, more educated, with adolescent or adult children or sisters present in the household, and to report higher cultivated acreages, production surpluses and cash sales of food crops as compared with widows who are heads of household. The latter group are often grandmothers who have only their younger grandchildren present in the home.

18/ For example, the United Nations recommendations for population censuses (51) include only the following categories of marital status: (a) single; (b) married; (c) widowed, not remarried; (d) divorced, not remarried; (e) married, but separated (para. 2.97). However, the recommendations also note that "category (b) may require a subcategory of persons who are contractually married but not yet living as man and wife" and that, "in all countries, category (e) should comprise both legally and de facto separated, which may be shown as separate categories if desired" (para. 2.98). In addition, "the collection of additional information related to customs in particular countries (such as concubinage, polygamous or polyandrous marital status, inherited widows, etc.) may be useful to meet national needs", while countries that wish to investigate, for example, de facto unions of varying degrees of stability "should consider the possibility of collecting separate data for each person on formal marital status, on de facto unions and on the duration of each type of union" (paras. 2.103 and 2.104). In case of a polygynous situation, the man is considered head of that household where he spends the greater time.

19/ See, for example (44).

20/ The UNESCO Statistical Yearbook provides data for first-level education on duration, number of institutions and teaching staff by sex, in addition to enrolment data by sex. Second-level education statistics are also given by area of specialization: general education, teacher-training and other education (religious, commercial, health-related, trade and industrial, engineering, agriculture, forestry and fisheries, home economics, transport and communications, service trades and so on). The Yearbook also specifies enrolment and repeaters by grade. For higher education students are classified by field of study and by the three programme levels defined in the International Standard Classification of Education (ISCED) (64): (a) programmes leading to an award not equivalent to a first university degree; (b) programmes leading to a first university degree or equivalent qualification; and (c) programmes leading to a post-graduate degree or equivalent qualification.

21/ For a discussion of the lack of comparability and relative accuracy of enrolment and attendance data, see (62).

22/ There are distinct problems in the computation of age-specific enrolment ratios because of the absence of accurate data on enrolment classified by age. Actual attendance does not follow the age limits prescribed by the educational level. Pupils attending primary school are often older than 12 years, and there are many enrolled in higher education who are older than 24 years (62). The problem is compounded at the subnational level by differing geographical classifications used in census and administrative sources.

23/ In (44), it is reported that enrolment loss or drop-out varies by levels and cycles owing to different causes. Low retention within the primary cycle results from structural considerations (e.g., rural schools often provide only initial grades), poverty and inability to pay school costs, low motivation, poor performance and irrelevance of curricula and poor quality of schooling. For example, in the Philippines in 1966-1967, for every 100 children enrolled in grade I in primary school only 56 survived to grade VI; in Pakistan, 45 per cent of students starting primary school in 1969 did not complete the cycle. In Morocco, for every 100 children entering primary school only two complete secondary education. Wastage rates tend to be higher among girls, among the poor and in rural areas. In Kenya, of the secondary school class entering form I in 1973, 83 per cent of the males and 69 per cent of the females enrolled in form II in 1974.

24/ A content analysis of the curriculum and textbooks in Pakistan illustrates this point. Women are mentioned infrequently. When they appear they have no names and are identifiable by labels such as mother, wife, sister. Activities involving women focus on family roles. Girls are portrayed as passive, non-achievers and non-initiators and in general are not expected to attain socially worthwhile goals (44).

25/ There are three reasons for this shift: one is that despite huge investments in educational infrastructure, it is still impossible for some countries to fully absorb their growing school-age population in the formal system of education. A second consideration is the awareness of the wide discrepancy between skill demands in the labour market and the kind of training provided in formal educational institutions. A third reason is the large proportion of adults in the population who have been bypassed by the educational system and for whom basic training directed towards marketable skills must be provided. A majority of this group are women.

26/ The general expectation is that educational attainment will increase women's labour force participation, their ability to move into modern sector activities, and their representation in a wider range of occupational classifications, within the professional and technical categories. However, there are contradictory findings regarding the correlation between women's education and their inclination and ability to work. Some studies find a close, positive relationship between the two variables (9, 81). Other studies argue that education may reduce labour force participation because well-educated women typically marry well-educated men and do not need to work or have no incentive to do so (45). Also, there is some disagreement concerning the prospects for change in the relationship between female educational attainment and labour force participation at different stages of economic development (7, 45).

27/ See International Labour Office, International Recommendations on Labour Statistics (Geneva, 1976).

28/ Some delegates to the Thirteenth International Conference of Labour Statisticians proposed the term "periodically active" as being more descriptive of seasonal and intermittent labour force activity.

29/ It was recognized that the specification of appropriate criteria to define the status "available for work" has a subjective connotation and may not be simple to ascertain. However, Jamaica has for some years successfully used the concept of availability in collecting unemployment statistics. See Jamaica, Department of Statistics, The Labour Force (Kingston, annual).

30/ There are distinct boundary problems regarding employment for wages and salaries and self-employment with respect to persons with work but not at work and multiple job holding, to mention only a few. See (23), paras. 57-106.

31/ Detailed statistics of time-use, including work and other activities, have been collected in many countries. An analysis of this field of statistics in relation to women's issues, though recognized to be extremely useful and important, is beyond the scope of the present study. A brief review of work in this field was prepared in 1978 for consideration by the United Nations Statistical Commission ("Progress report on the development of statistics of time-use; report of the Secretary-General" (E/CN.3/519)), and a more detailed technical report is in preparation. Several time-use studies specifically concerned with women's issues have been undertaken by the Institute of Social Studies Trust, New Delhi, India. See, for example, D. Jain and M. Chand, "Report on a time allocation study; its methodological implications" (New Delhi, 1982); D. Jain "Integrating women into the state five year plan" (in preparation); and D. Jain and M. Chand, Women's Quest for Power (New Delhi, Vikas Publishing House, 1980).

32/ Recommendations for a statistical programme for household and small-scale industries are being prepared by the United Nations Statistical Office. Draft recommendations will be issued and circulated for comments in 1984-1985.

33/ For more details on efforts to improve income distribution statistics, see (50).

34/ Recent attempts to establish the relative poverty and distribution of female-headed households across income deciles have yielded contradictory findings because of conflicting estimates of income, differences in methodologies and in the conceptual definitions applied, and income estimates based on different units of analysis (such as the entire household, per capita and/or adult equivalent basis). For a discussion of measurement problems see (29).

35/ The theoretical basis for the concern with home production stems from the "New Home Economics School" and from a focus on the household as a unit of production, consumption and decision-making (4, 16). Home production is seen as a process by which market goods are combined with the time of the individual to produce commodities which directly enter the family's utility function (5).

36/ The World Plan of Action adopted in 1975 by the United Nations World Conference of the International Women's Year chose as one of its main goals the assignment of economic value to home production. The Plan calls for developing a scientific and reliable data base to assess the economic contribution of women and particularly specifies that special efforts should be made to measure, among other things, "the economic and social contribution of housework and other domestic chores, handicrafts and other home-based activities" (Report of the World Conference of the International Women's Year, Mexico City, 19 June - 2 July 1975

(United Nations publication, Sales No. E.76.IV.1), part one, chap. II.A, para. 168 (c)).

37/ See (58, annex A) for a review of the treatment of subsistence activities and activities in the household sector in the System of National Accounts. For the reaction of the experts which considered (58), see (56 and 59, paras. 7 and 8). See also "The System of National Accounts: review of major issues and proposals for future work and short term changes" (ESA/STAT/AC.15/2) and the report of the Expert Group Meeting on the Review and Development of the United Nations System of National Accounts, New York, 22-26 March 1982 (ESA/STAT/AC.15/8), paras. 16, 17 and 20.

38/ The distinction between household production and leisure has been a problem. Boulding (8) clearly includes activities such as time spent on sports, creative pursuits and reflection as part of the human service dimension of family activity and argues that this dimension should be included in household production. King and Evenson (30) include playing with children and church and festival activities as leisure. Walker (75) differentiates leisure from work by simply asking respondents to categorize their own behavior, for example, asking mothers their own perception of when they are playing with and enjoying their children (recreation) versus performing child care duties (work). Mueller (35) excludes from the concept of leisure, time devoted to sleeping, going to bed and getting up.

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

40/ A System of National Accounts, Studies in Methods, Series F, No. 2, Rev.3 (United Nations publication, Sales No. E.69.XVII.3 and corrigendum), para. 6.19.

41/ I. Palmer, The Nemow Case: Case Studies of the Impact of Large Scale Development Projects on Women: A Series for Planners, International Programs Working Papers, No. 7 (New York, The Population Council, 1979).

42/ The importance of documenting the access that women heads of household have to productive resources had been stressed by the FAO Expert Consultations on Socio-Economic Indicators for Monitoring and Evaluating Agrarian Reform and Rural Development. These meetings recommended the disaggregation of poverty indicators by sex of head of household to measure income differentials in rural areas. See (12, 13, 41).

43/ Other factors directly related to rural productivity and income are access to training, off-farm employment and technology. See (81).

44/ For a thorough review of this subject, see (15).

45/ The first two measures have been strongly endorsed by the FAO Expert Consultations on Socio-Economic Indicators for Monitoring and Evaluating Agrarian Reform and Rural Development (12, 41).

Notes (continued)

46/ For a classification of ownership/usage patterns in relation to agricultural production particularly relevant to women, see (6).

47/ See (17) for a discussion of measures of intergenerational mobility. The supplement to the 1962 United States Current Population Survey included a question whereby each husband with spouse present aged 20 to 64 was asked to describe his wife's father's occupation when she was 16 years old. Men were encouraged to seek their wife's help in answering this question. The variable of wife's father's occupation was used in the analysis of assortative mating and of its effect on social mobility and fertility.

48/ In the United States, status history of men and women as reflected in father's occupation is not strongly correlated with women's presence in the labour force. The major factor affecting labour force participation is sex. Also, there is no substantial difference between the sexes in father's occupation by labour force participation. Most, but not all, of the difference in intergenerational occupational mobility patterns of men and women can be attributed to differential occupational distribution of the sexes. Men are more likely than women to enter occupations where social standing is close to that of their father (17).

49/ For example, in the 1962 United States Current Population Survey, analysis of intergenerational mobility among women was restricted to wives with spouse present and excluded currently in married women. It also excluded housewives not currently in the labour force (17).

50/ See Compiling Social Indicators on the Situation of Women, Studies in Methods, Series F, No. 32 (United Nations publication, Sales No. E.84.XVII.2).

References

1. Anker, R. M., M. Buvinic and N. H. Youssef, eds., Women's Roles and Population Trends in the Third World (London, Croom Helm, 1982).

2. Association of African Women for Research and Development and the Dag Hammarskjöld Foundation, "Another development with women", papers presented at the Seminar on Another Development with Women, Dakar, 21-25 June 1982, Development Dialogue, 1982, No. 1-2.

3. Baster, N., The Measurement of Women's Participation in Development: The Use of Census Data, D.P. 159 (Brighton, England, Institute of Development Studies, 1981).

4. Becker, G. S., "A theory of the allocation of time", Economic Journal, vol. LXXV, No. 299 (September 1965), p. 493.

5. Birdsall, N., "Measuring time use and nonmarket exchange", in Third-World Poverty, W. P. McGreevey, ed. (Lexington, Mass., Lexington Books, 1980).

6. Botswana, Ministry of Agriculture and Central Statistics Office National Migration Study, "Urban and rural female-headed households' dependence on agriculture", by Carol Kerven (Gaborone, 1979).

7. Boudon, R., Education, Opportunity and Social Inequality: Changing Prospects in Western Society (New York, John Wiley and Sons, 1974).

8. Boulding, E., "Measures of women's work in the third world: problems and suggestions", in Women and Poverty in the Third World, M. Buvinic, M. A. Lycette and W. McGreevey, eds. (Baltimore, Johns Hopkins University Press, 1983).

9. Bowen, W. G. and T. A. Finegan, The Economics of Labor Force Participation (Princeton, Princeton University Press, 1969).

10. Buvinic, M., M. A. Lycette and W. McGreevey, eds., Women and Poverty in the Third World (Baltimore, Johns Hopkins University Press, 1983).

11. Buvinic, M. and N. H. Youssef with B. Von Elm, Women-Headed Households: The Ignored Factor in Development Planning (Washington, International Center for Research on Women, 1978).

12. Food and Agriculture Organization of the United Nations, "Adequacy of the indicators and pilot studies for low income and other disadvantaged groups", reports prepared for the regional Expert Consultation Meetings on Socio-economic Indicators for Monitoring and Evaluating Agrarian Reform and Rural Development, for the African Region, Addis Ababa, 10-15 May 1982 (ESH/ESS:ARRD/AF/4) and for the Asia and Pacific Region, Bangkok, 19-24 April 1982 (ESH/ESS:ARRD/AP/4); and "Adequacy of socio-economic indicators for monitoring and evaluating low income and disadvantaged groups", reports prepared for the regional Expert Consultations on Socio-Economic Indicators for Monitoring and Evaluating Agrarian Reform and Rural Development for the Latin American and Caribbean Region, La Paz, 25-28 May 1982 (ESH/ESS:ARRD/LA/4) and for the North African and Middle Eastern region, Tunis, 14-19 June 1982 (ESH/ESS:ARRD/NE/4). These reports were prepared by C. Safilios-Rothschild as consultant to FAO. They are summarized by the author in (41).

13. _____, "The state of statistics on women in agriculture in the third world", paper submitted to the United Nations Expert Group on Improving Statistics and Indicators on the Situation of Women, New York, 11-15 April 1983 (ESA/STAT/AC.17/7-INSTRAW/AC.1/7) and to the FAO Expert Consultation on Women in Food Production, Rome, 7-14 December 1983 (ESH:WIFP/83/13). Prepared by C. Safilios-Rothschild as consultant to FAO.

14. _____, "Provisional Guidelines on Some Recommended Indicators for National Monitoring Purposes and Reporting to 1983 FAO Conference on Progress in Agrarian Reform and Rural Development" (Rome, 1982).

15. _____, Human Resources, Institutions and Agrarian Reform Division, "The legal status of rural women", by Lisa Bennet (Rome, 1979).

16. Gronau, R., "The intrafamily allocation of time: the value of the housewives' time" American Economic Review, vol. LXIII, No. 4 (September 1973), p. 634.

17. Hauser, R. and D. L. Featherman, The Process of Stratification: Trends and Analysis (New York, Academic Press, 1977).

18. Institute of Social Studies Trust, "National study on female headed households" (New Delhi, n.d.).

19. International Center for Research on Women, Bringing Women in: Towards a New Direction in Occupational Skills Training for Women (Washington, 1980).

20. _____, "Reflections on a building block approach for the formulation of international recommendations on labour force statistics" (MEHS/1981/D.3).

21. International Labour Office, "An alternative approach for collection and presentation of labour force data" (MEHS/1981/D.4).

22. _____, Ninth International Conference of Labour Statisticians, International Classification according to Status, Report III (Geneva, 1957).

23. _____, Thirteenth International Conference of Labour Statisticians, Report of the Conference (ICLS/13/D.11, final version).

24. Jain, Devaki, "Development as if women mattered, or, can women build a new paradigm?" (New Delhi, Institute of Social Studies Trust, 1983).

25. _____, "Women in employment: some preliminary observations", paper presented at the Workshop on Women and Poverty, Calcutta, 17-18 March 1983.

26. Jain, Devaki and Malini Chand, "The importance of age and sex specific data collection in household surveys", paper presented at the United Nations Economic and Social Commission for Asia and the Pacific Seminar on Household Surveys, Bangkok, 15-26 September 1980. For the report and recommendations of the meeting, see (55) below; for a summary of the proceedings, see (54) below.

27. _____, "Patterns of female work: implications for statistical design, economic classification and social priorities", paper prepared for the National Conference on Women's Studies, Bombay, 20-24 April 1982.

28. Jiggins, J., "Female headed households among subsistence cultivators in the central and northern provinces in Zambia", paper presented at the Ford Foundation Workshop on Women and Agricultural Production in Eastern and Southern Africa, Nairobi, 1980.

29. Jodha, N. S., "Consideration in measurement of rural household income" (Hyderabad, International Crops Research Institute for the Semi-Arid Tropics, 1976).

30. King, E. and R. Evenson, "Time allocation and home production in Philippine rural households", in Women and Poverty in the Third World, M. Buvinic, M. A. Lycette and W. McGreevey, eds. (Baltimore, Johns Hopkins University Press, 1983).

31. Kossoudji, S. and E. Mueller, "The economic and demographic status of female headed households in rural Botswana", University of Michigan, Population Studies Center, Research Report No. 81-10 (Ann Arbor, 1981).

32. Kuznets, S., "Demographic aspects of the size distribution of income: an exploratory essay", Economic Development and Cultural Change (Chicago), vol. 25, No. 1 (October 1976), p. 1.

33. Lopez, Alan D. and Lado T. Ruzicka, eds., Sex Differentials in Mortality: Trends, Determinants and Consequences, selection of the papers presented at the Australian National University/United Nations/World Health Organization meeting, Canberra, 1-7 December 1981 (Canberra, Australian National University, 1983).

34. Merrick, T. and M. Schmink, "Households headed by women and urban poverty in Brazil", in Women and Poverty in the Third World, M. Buvinic, M. A. Lycette and W. McGreevey, eds. (Baltimore, Johns Hopkins University Press, 1983).

35. Mueller, E., "Measuring women's poverty in developing countries", in Women and Poverty in the Third World, M. Buvinic, M. A. Lycette and W. McGreevey, eds. (Baltimore, Johns Hopkins University Press, 1983).

36. Musgrove, P. and R. Ferber, "Identifying the urban poor: characteristics of poverty households in Bogotá, Medellín, and Lima", Latin American Research Review (University of North Carolina), vol. XIV, No. 2 (1979), p. 25.

37. Nissell, M., "Women and government statistics: basic concepts and assumptions" (London, Policy Studies Institute, n.d.).

38. Organisation for Economic Co-operation and Development, Development Centre, Non-monetary (Subsistence) Activities in the National Accounts of Developing Countries, by D. W. Blades (Paris, 1975).

39. Psacharopoulos, G., Returns to Education: An International Comparison, (Amsterdam, Elsevier, 1973).

40. Sabot, R. H., "The meaning and measurement of urban surplus labour", Oxford Economic Papers, vol. 29, No. 3 (November 1977), p. 389.

41. Safilios-Rothschild, C., "Adequacy of socio-economic indicators for monitoring and evaluating the impact of agrarian reform and rural development on women, small farmers and landless laborers" (New York, 1982).

42. _____, "Female power, autonomy and demographic change in the Third World", in Women's Roles and Population Trends in the Third World, R. M. Anker, M. Buvinic and N. H. Youssef, eds. (London, Croom Helm, 1982).

43. _____, "Methodological problems involved in the cross-cultural examination of indicators related to the status of women", paper presented at the Population Association of America annual meetings, Toronto, 1972.

44. Smock, A. C., Women's Education in Developing Countries: Opportunities and Outcomes (New York, Praeger, 1981).

45. Standing, G., "Education and female participation in the labour force", International Labour Review (Geneva), vol. 114, No. 3 (November-December 1976), p. 281.

46. Tienda, M. and S. O. Salazar, "Female headed households and extended family formation in rural and urban Peru", University of Wisconsin, Center for Demography and Ecology, Working Paper 79-34, (Madison, 1980).

47. Tyree, A. and J. Treas, "The occupational and marital mobility of women" American Sociological Review, vol. 39, No. 3 (June 1974), p. 293.

48. United Nations, Department of Economic and Social Affairs Methods of Projecting Households and Families, Population Studies, No. 54 (Sales No. E.73.XIII.2).

49. _____, Department of Economic and Social Affairs, Statistical Office, Provisional Guidelines on Statistics of the Distribution of Income, Consumption and Accumulation of Households, Statistical Papers, Series M, No. 61 (Sales No. E.77.XVII.11 and corrigendum).

50. _____, Department of International Economic and Social Affairs, Statistical Office, Handbook of Household Surveys (revised edition), Studies in Methods, Series F, No. 31 (Sales No. E.83.XVII.13).

51. _____, Department of International Economic and Social Affairs, Statistical Office, Principles and Recommendations for Population and Housing Censuses, Statistical Papers, Series M, No. 67 (Sales No. E.80.XVII.8).

52. _____, Department of International Economic and Social Affairs, Statistical Office, Social Indicators: Preliminary Guidelines and Illustrative Series, Statistical Papers, Series M, No. 63 (Sales No. E.78.XVII.8).

53. _____, Development Advisory Team for the South Pacific, Estimating Non-monetary Activities: A Manual for National Accounts Statisticians, E. C. Dommen, ed. (Fiji, 1974).

54. _____, Economic and Social Commission for Asia and the Pacific, Household Surveys in Asia: Organization and Methods (Bangkok, 1981).

55. _____, Economic and Social Commission for Asia and the Pacific, "Report of the Seminar on Household Surveys", Bangkok, 15-26 September 1980 (E/ESCAP/STAT.4/11-E/ESCAP/STAT/SHS/19).

56. _____, Economic and Social Council, Statistical Commission, "Future directions for work on the System of National Accounts (SNA): report of the Secretary-General" (E/CN.3/541).

57. _____, Economic and Social Council, Statistical Commission, "Progress report on national and international work on social indicators and on related concepts and classifications for general use: report of the Secretary-General" (E/CN.3/1983/18).

58. _____, Expert Group on Future Directions for Work on the United Nations System of National Accounts, "Future directions for work on the United Nations System of National Accounts" (ESA/STAT/AC.9/1).

59. _____, Expert Group on Future Directions for Work on the United Nations System of National Accounts, "Report of the meeting" (ESA/STAT/AC.9/5).

60. United Nations Secretariat, "Sex-based stereotypes, sex biases and national data systems" (ST/ESA/STAT/99).

61. United Nations Educational, Scientific and Cultural Organization, Comparative Analysis of Male and Female Enrolment and Illiteracy, Current Studies and Research in Statistics (CSR-E-36) (Paris, 1980).

62. _____, "Comparing population census and institutional data on participation in education: uses and limitations of the two sources", by Robert Johnston and Dennis O'Brien (ST-83/WS/15) (Paris, 1983).

63. _____, Guidelines for the Collection of Statistics of Literacy Programmes (Preliminary Manual), Current Studies and Research (CSR-E-34) (Paris, 1979).

64. _____, International Standard Classification of Education (ISCED), Abridged Edition (ED/BIE/CONFINTED.35/Ref.8) (Paris, 1975).

65. _____, Manual for the Collection of Adult Education Statistics, Current Studies and Research in Statistics (CSR-E-15) (Paris, 1975).

66. _____, Participation of Women in R and D - A Statistical Study, Current Studies and Research in Statistics (CSR-S-9) (Paris, 1980).

67. _____, Practical Guide for the Collection of Statistics on Out-of-School and Adult Education (Paris).

68. _____, Statistics of Educational Attainment and Illiteracy, 1945-1974 Statistical Reports and Studies, No. 22 (Paris, 1977).

69. _____, Women and Development: Indicators of Their Changing Role, Socio-economic Studies 3 (Paris, 1981).

70. United Nations Research Institute for Social Development, Monitoring Changes in the Conditions of Women - A Critical Review of Possible Approaches, by I. Palmer and U. Von Buchwald, Report No. 80.1 (Geneva, 1980).

71. _____, Research Data Bank of Development Indicators, vol. IV, Notes on the Indicators, Report No. 77.2 (Geneva, 1977).

72. United States of America, Department of Labor, Bureau of Labor Statistics, "New worklife estimates", by Shirley Smith and others, Bulletin 2157 (Washington, 1982).

73. _____, "Tables of working life: the increment-decrement model", by Shirley Smith and others, Bulletin 2135 (Washington, 1982).

74. Walker, A. H. and M. Gendell, "The relationship of family life cycle and rural-urban residence to family size and composition" (Guatemala, 1966).

75. Walker, K. E., "The potential for measurement of non-market household production with time-use data", paper presented at the International Sociological Association, Ninth World Congress of Sociology, Uppsala, 1977.

76. Ware, Helen, Women, Demography and Development (Canberra, Australian National University Press, 1981).

77. Wiest, R., "Wage-labor migration and the household in a Mexican town", Journal of Anthropological Research (Albuquerque), vol. 29 (Autumn 1973), p. 180.

78. World Bank, Household Income or Household Income Per Capita in Welfare Comparisons, by G. Datta and J. Meerman, World Bank Staff Working Paper No. 378, (Washington, 1980).

79. Youssef, N. H., "Sex-related biases in census counts: the question of women's exclusion from employment statistics", in Priorities in the Design of Development Programs: Women's Issues (Washington, United States Agency for International Development, Development Support Bureau, and International Center for Research on Women, 1980).

80. _____, Women and Work in Developing Societies (Westport, Conn., Greenwood Press, 1976).

81. Youssef, N. H. and C. Hetler, "Rural households headed by women: a priority issue for development" (Geneva, International Labour Office, forthcoming).