Improving Statistics and Indicators on Women Using Household Surveys



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IMPROVING STATISTICS AND INDICATORS ON WOMEN USING HOUSEHOLD SURVEYS



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PREFACE

The present publication is one in a series of reports issued by the United Nations to promote the improvement and use of statistics and indicators on the situation of women. These studies have been concerned with issues such as sex biases in statistics, methods of compiling social indicators on the situation of women and ways of improving concepts and methods for collection and compilation of statistics and indicators on 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 World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development 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 report brings together for the first time in a single study several major, related areas of work of the Statistical Office of the United Nations Secretariat of great potential importance for the development of statistics and indicators on the situation of women. These areas are improvement of statistical concepts and methods and promotion and support of national household survey capabilities and applications by technical co-operation and technical documentation. While substantial documentation has been developed and published by the United Nations over the last few years on household surveys for national use, <u>3</u>/ there has not yet been any extensive attention to the unique data collection problems and issues that must be addressed if national household survey programmes are to provide relevant, reliable and unbiased statistics and indicators on the situation of women across all of the various economic and social fields covered by survey programmes.

The present publication, as well as the two preceding publications in this series, $\underline{1}/$ has 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 the Dominican Republic, to promote the development of statistics and indicators on the situation of women. It was written by Helen Ware as consultant to INSTRAW and the Statistical Office. Those portions of the report concerned with measurement of economic activity, income and time use were discussed by an Expert Group on Measurement of Women's Income and their Participation and Production in the Informal Sector, which met at Santo Domingo from 13 to 17 October 1986, and have been revised to take the comments of the expert group into account. $\underline{4}/$

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, or the Director of the International Research and Training Institute for the Advancement of Women, Santo Domingo, Dominican Republic.

<u>1</u>/ The first two publications in this series are <u>Compiling Social</u> <u>Indicators on the Situation of Women</u>, Studies in Methods, Series F, No. 32 (United Nations publication, Sales No. E.84.XVII.2), and <u>Improving Concepts and</u>

Methods for Statistics and Indicators on the Situation of Women, Studies in Methods, Series F, No. 33 (United Nations publication, Sales No. E.84.XVII.3). These reports follow up and elaborate an earlier working paper prepared by the United Nations Secretariat entitled "Sex-based stereotypes, sex biases and national data systems" (ST/ESA/STAT/99).

2/ See Report of the World Conference of the International Women's Year, <u>Mexico City, 19 June-2 July 1975</u> (United Nations publication, Sales No. E.76.IV.1), chap. II, sect. A, paras. 161-173; <u>Report of the World</u> <u>Conference of the United Nations Decade for Women: Equality, Development and</u> <u>Peace, Copenhagen, 14 to 30 July 1980</u> (United Nations publication, Sales No. E.80.IV.3 and Corrigendum), chap. I, sect. A, paras. 257-261; "The Nairobi Forward-Looking Strategies for the Advancement of Women", in <u>Report of the</u> <u>World Conference to Review and Appraise the Achievements of the United Nations</u> <u>Decade for Women: Equality, Development and Peace, Nairobi, 15-26 July 1985</u> (United Nations publication, Sales No. E.85.IV.10), chap. I, sect. A, paras. 58, 64, 120, 122, 130, 282, 312, 317, 333, 351; 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/ See <u>Handbook of Household Surveys (Revised Edition</u>), Studies in Methods, Series F, No. 31 (United Nations publication, Sales No. E.83.XVII.13); "National Household Survey Capability Programme - progress report, July 1982-June 1983" (Statistical Office of the United Nations Secretariat, 1983); and the Technical Studies series of the National Household Survey Capability Programme (NHSCP), issued by the Department of Technical Co-operation and Development and Statistical Office of the United Nations Secretariat, <u>Survey</u> <u>Data Processing: A Review of Issues and Procedures (DP/UN/INT-81-041/1), Non-Sampling Errors in Household Surveys: Sources, Assessment and Control (DP/UN/INT-81-041/2), <u>The Role of the NHSCP in Providing Health Information in</u> <u>Developing Countries (DP/UN/INT-81-041/3), Development and Design of Survey</u> <u>Questionnaires (INT-84-014), and Sampling Frames and Sample Designs for</u> Integrated Household Survey Programmes (DP/UN/INT-84-014/5E).</u>

 $\frac{4}{\text{The report of the expert group meeting has been issued as document ESA/STAT/AC.29/8 - INSTRAW/AC.3/8.$

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INTRODUCTION

The outcome of the world conference that marked the close of the United Nations Decade for Women: Equality, Development and Peace (1976-1985) was consensus agreement by the 158 Governments present on the Nairobi Forwardlooking Strategies for the Advancement of Women, from which the passage below is quoted. The Forward-looking Strategies lay great stress upon the importance of statistics on women as a means of improving the status of women by showing where inequalities are and by enabling progress to be monitored. It is stated in the Forward-looking Strategies that:

"Timely and reliable statistics on the situation of women have an important role to play in the elimination of stereotypes and the movement towards full equality. Governments should help collect statistics and make periodic assessment in identifying stereotypes and inequalities, in providing concrete evidence concerning many of the harmful consequences of unequal laws and practices and in measuring progress in the elimination of inequities" ([1], para. 58; see also paras. 64, 120, 122, 130, 282, 312, 317, 333, 351).

There are a number of basic reasons for taking a fresh look at systems for collecting statistical data to ensure that they yield data that accurately reflect the situation of women as well as that of men.

First, all officially published data should be as factually accurate as possible. Any statistical picture in which women's concerns are not adequately covered and depicted is false. A portrait of the world in which men and their concerns figure as larger than life while women and their interests are diminished is inevitably false and inaccurate. Data that do not accurately reflect the situation of women should not be accepted. The demands of scientific and technical rigour are the same irrespective of sex. There can be no scientific justification for any implication that accuracy in statistical presentation is less vital in the case of women than in the case of men.

Secondly, in order to give fair and equitable treatment to women it is essential to know what their situation is in comparison to that of men. Often in the past the justification for the different treatment of women has been that women differ in their behaviour or requirements. Yet often these assertions are based upon popular and unsubstantiated beliefs rather than upon actual data on women. Examples of this practice abound. Wage differentials between the sexes are held to be justified by women's lesser economic responsibilities for the family, their lesser training and qualifications or their lesser commitment to continuous work-force participation and so on. Yet there are few adequate comparative data on the family responsibilities of male and female workers, on the wages of men and women with the same level of training or on continuity of employment and the like. It does not follow that demonstrated differences would necessarily justify differentials in treatment, but in the absence of relevant data and analysis no reasonable conclusions can be drawn.

Thirdly, even in the absence of any special interest in equitable conditions for women, no policy maker would deliberately set out to base planning upon inaccurate data. Thus, for example, if the objective is to raise the level of food production it is vital to have a reasonable measure of the contributions of both sexes before, say, designing a scheme that requires additional labour inputs during the peak season for agricultural work. No one designs a statistical data collection exercise with the intention of omitting or under-representing women; the problem stems from the conceptual framework and definitions used.

Fourthly, one major spinoff from the development of improved methods for collecting data on women will undoubtedly be a very significant improvement in the collection of data on men. One obvious example relates to data collection in the area of labour-force participation. Any methods that improve the collection of information on the intermittent participation of women or upon their participation in the informal sector and in family enterprises will also improve knowledge of men's activities in these areas. It has been a widespread practice to categorize men's affairs as belonging to the public domain while women's concerns are relegated to the private or familial sphere [2]. A central feature of the process of designing a household survey that will be able to gather worthwhile data on the situation of women will be to create a balance in the collection of data on public and private roles of men and women alike.

After the United Nations Decade for Women: Equality, Development and Peace (1976-1985), it is generally no longer necessary to argue the need for better data on women. There is even a risk that the lack of adequate data may unreasonably be used as a justification for inaction in areas where enough is already known in broad terms of what can and should be done to move from data gathering to programmed action. The chief difficulty, however, is to ensure that the general agreement on the need for improved data on women is translated into action when data collection programmes are under way. Where working systems are already in place there is an understandable reluctance to change existing procedures. Not only is there a concern about moving from a known system that appears to have worked well in the past to a new system of unknown efficacy, but also there is a valid concern about the feared loss of comparability with existing series.

This text is the third in a series. It has been preceded by <u>Compiling</u> <u>Social Indicators on the Situation of Women</u> [3] and <u>Improving Concepts and</u> <u>Methods for Statistics and Indicators on the Situation of Women</u> [4]. <u>Compiling</u> <u>Social Indicators</u> is concerned with the immediate and effective utilization of statistics currently available in many countries. It focuses upon the development of reliable indicators on the situation of women from existing censuses, household surveys and registration systems. <u>Improving Concepts and Methods</u> has two quite different objectives: one is to 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 other is to consider what changes might be made during the next decade in existing concepts on and methods of the collection, analysis and application of data.

The present report, also, deals with new data collection methodologies intended for immediate application, but with a specific focus. It is aimed at the practical improvement of household surveys, especially in developing countries, and is intended as a practical guide for statistical offices and other agencies and researchers responsible for the collection of data. Many sections of the report are relevant to national machinery for the advancement of women and organizations to use in dialogue with the data gatherers. In the past a major problem has often been that the dialogue between women's organizations and statisticians has not taken place or has been cut short because of a lack of common ground. Thus, one objective of this document is to provide that common ground and to suggest options for discussion between the two at all stages of the work, starting with the initial planning discussions. The aim is to provide a practical guide to the achievement of goals and the avoidance of obstacles in improving the scope, coverage and quality of data on women.

The main emphasis is upon the situation faced by countries that already have some experience of governmental household surveys. Countries without such experience, however, will also be able to use many of the ideas suggested with the advantage that they will not need to abandon or modify existing practices in doing so. At the same time, since this report has a practical orientation, it focuses on the best that can realistically be achieved rather than an ideal. Thus the limitations of the household survey programme format are accepted as given parameters. It is recognized that many aspects of women's lives cannot appropriately be investigated by a large-scale household survey, but need the greater probing capacity of an in-depth investigation such as can be carried out by an individual sociologist or anthropologist.



PART ONE SURVEY PLANNING AND OPERATION



I. ROLE OF HOUSEHOLD SURVEYS IN IMPROVING STATISTICS AND INDICATORS ON WOMEN

A. Defining data needs

In defining the need for statistical data on women, it is essential to start with an examination of what is available and what the deficiencies appear to be. The present report is intended for use in countries that have already had at least one census of population and housing. Hence, the obvious starting point is with the data available from the census. Most censuses provide information on sex, age, marital status, place of residence, education, labourforce status, occupation and industry.

Starting from the base of information available from the most recent census, there are likely to be three main types of problems:

(a) Limitations in the subject coverage of the census, e.g., censuses rarely include any measure of income or wealth;

(b) Limitations in the quality of the data obtained, e.g., the data on economic activity participation may not provide an accurate measure of women's participation in the labour force;

(c) Limitations in availability of the relevant information, e.g., data on economic activity may only be available for males, or information on the relationship to the head of household might not have been processed.

After the census it is rarely possible to do anything to rectify problems of the first and second type. It may be possible to do something about problems of the third type on a retrospective basis, but whether the value of the data thus obtained will justify the effort involved depends upon such factors as the recency of the census, the quality of the data that might be produced and the amount of effort required to produce new tabulations.

Criticisms of the lack of data on women have become so commonplace as to make it necessary to stress the importance of starting with an examination of what is already available from the population and housing census and from previous household surveys. It is argued in the present report for new approaches to the collection of data on women, but certainly not in isolation from what has gone before. However inadequate the existing pool of data, it will be the only data available for earlier time periods and should be exploited for what it can yield. That is why the so-called building-block approach to data collection is so important; it maximizes the utility of existing data.

In a building-block approach the aim is to build up data from individual components so that, although the combination of components in a unified whole may yield the most meaningful results in the current context, it is still possible to maintain comparability with existing series through the use of the components, assuming the components have been designed to include both the old and the new concepts and definitions. This principle applies not only to questionnaire design but also to sampling and practices in the field. Thus, for example, a 100 per cent switch from male to female interviewers or from a so-called key word question in labour-force participation to an activity schedule would be counter-productive because these total breaks in the series would make it impossible to tell how far any changes are the consequence of real changes in the phenomenon being measured and how far they are the consequence of changes in measurement techniques. The aim is to maintain sufficient continuity to make it possible to see what the changes measured are when keeping the method of measurement constant while also improving the methodology to establish more encompassing and more accurate measures. The requirement is not to destroy the system in order to improve data on women, but rather to build upon existing foundations. In this process, dialogue between data providers and prospective data users is essential.

B. Areas where the deficiencies of data on women are most acute

1. Economic activities

The main concern in the present report is less with the general problems associated with gathering high-quality data in developing countries than with those areas where data on women are particularly deficient. The increasing number of detailed critiques of the available census and survey data on women show a high level of agreement on where the problems are to be found and it is clear that the major problem area relates to the data on the economic activities of women. It appears that no one is prepared to defend the ways in which these data are currently collected and almost everyone who has written on the improvement of the quality of data on women has made suggestions on how to improve the measurement of women's economic activities.

Criticisms of data on economic activities cross the whole spectrum of public data sources. Thus, while Boserup [5] and the United Nations [6] focused on the inadequacies of census data, and Rogers [7] concentrated on rapidly gathered data used in the field by development agencies, Von Buchwald and Palmer [8] and the United Nations/INSTRAW Expert Group on Improving Statistics and Indicators on the Situation of Women [9] were reviewing the whole range of survey and census data.

2. Household data

After the data on women's economic activities, it is the data on women as heads of households that are most commonly attacked as being inadequate. Closely related to the data on household headship are the data on households and women's place within them. There is a basic difficulty that while the head of household, however defined, must be of one sex or the other, households as units do not have a sex and much data on households are in a form such that it is not possible to distinguish the resources of the individual women and men who make up the household.

In such instances, there is a two-way link between the deficiencies in the data and sexual inequities in the implementation of policy. Households are described by the characteristics of the household head, who is defined as or assumed to be male and then resources are allocated on this basis. Thus, for example, a farming household is a household where the male head is a farmer.

The difficulty of securing meaningful data on economic relationships within households is clearly of great significance for the study of female poverty. One broad approach is to say that poor women essentially come from two groups: (a) women who live alone or are the principal support of their own households; and (b) women who are members of poor households where all household members are judged to be living in poverty. This broad approach has the grave disadvantage of ignoring the situation of individual poor women living in households that are above the poverty line.

To give but two instances: there are the wives who are beaten but cannot leave home because they have no financial resources of their own, and there are adult daughters who are obliged to accept marriages that they find odious because they have had no training that would allow them to be self-reliant. Apart from any consideration of the personal misery involved, there are important development issues tied up with a knowledge of the allocation of resources within households. Expenditure patterns may be different depending on control of the household's resources. The small number of studies carried out to date suggest that female control of the cash from cash cropping is more commonly associated with expenditures on the children and their education and on domestic improvements, while male control is more likely to result in conspicuous consumption on personal consumer goods, such as watches or transistor radios, that are not shared, and on tobacco, alcohol and gambling. Thus, to turn the question upside down, it may well be as important to know what proportion of the household's income is spent on alcohol consumed by the males and their friends as to have an attitudinal response to a question on control of the household income.

C. Areas where the data on women are relatively good

In contrast to the bleak picture presented above, there are areas where the data on women are relatively good, some of which are given below. No expert ever feels that the data in her or his particular area are as abundent or as high in quality as is desirable. Nevertheless some topic areas are much better covered than others and it is necessary to be wary of decrying data that are of reasonable quality and coverage. The non-expert, hearing all the concerns expressed on the inadequacy of the available data on women, might be forgiven for thinking that there are no usable data available, which is certainly not the case.

1. Fertility

Given the world-wide efforts that have been devoted to the collection of high-quality fertility data during the past two decades, it is understandable that in most developing countries the highest quality data for women are those relating to their fertility. The World Fertility Survey [10] was possibly the world's largest single social science undertaking, and in many countries the local World Fertility Survey was but one of a considerable number of specialized fertility studies. As early as 1974 it was possible to list 550 fertility surveys carried out in India whose results had been published in English (Rao [11]).

Fertility is the one area where the data on women are undoubtedly better than the data on men. (Indeed, there are very few specific studies of male fertility behaviour.) Increasing attention is now being given to the examination of the possibilities of using data on women gathered in the innumerable fertility studies to illuminate other aspects of women's lives. An example is an analysis at the International Labour Office of World Fertility Survey data on female labour-force participation, a study that strongly suggests that the intensive questionnaire design and interviewer training as well as the use of female interviewers in the World Fertility Survey resulted in both superior fertility and labour-force data [12].

Anyone who is interested in maximizing the use of the data that are already available on the situation of women should certainly investigate the range of fertility surveys that are available. There has been a great number of fertility studies that have attempted to establish a link between the status of women and their fertility. Many of these studies merit re-examination to see what they reveal of the status of women as such [13]. Thus, to take but one example, Mason [14] has reviewed the interrelationships between the status of women, fertility and mortality from the viewpoint of the determinants of the demographic phenomena. The numerous studies she cites could also be used for the light that they shed on women's position, in this instance taking the demographic data as a part of the information on the situation of women. An unusual example where fertility data have been used as an indication of women's situation is Harrington's study of Nigerian women, focusing on nutritional stress and economic responsibility [15]. This study uses pregnancy and lactation data to construct an index of physical and nutritional stress, and it is forcefully argued that to ignore the reproductive burdens upon women in most developing countries is to gravely misrepresent their situation, especially where reproductive and economic burdens are combined.

2. Education

Many writers have criticized the quality of the available data on women's education (Von Buchwald and Palmer [8], United Nations [4]). These complaints, however, are generally concerned with data on out-of-school education or with in-depth questions such as the differences in content between the education of females and males. Even in 1970, of the 83 countries in the United Nations Research Institute for Social Development data bank, 83 per cent had data on the proportion of females among those enrolled in primary school, 61 per cent on higher education enrolment per 1,000 population aged 20-29 by sex, and 60 per cent on combined primary and secondary education enrolment as a percentage of population aged 5-19 by sex. Even on vocational education, 43 per cent of the countries had data on the percentages enrolled by sex (Von Buchwald and Palmer [8]).

There are also some wide-ranging international studies that use national education data (usually drawn from population censuses) to examine the situation of women (Boulding et al. [16]; Morris [17]; Sivard [18]). Indeed, in constructing the physical quality of life index (PQLI), Morris [17] chose to rely upon literacy and mortality measures because of their widespread availability (his appendix C presents the PQLI by sex for 74 countries for various years between 1947 and 1974).

That educational data of reasonable quality are widely available for both sexes is no reason why such data should not be collected in household surveys, rather it should offer encouragement that such data are not difficult to obtain. Information on the education of the individual is invaluable for understanding many differentials in behaviour. Education also has the advantage that it is an individual characteristic of each household member. Where other measures fail, education can also serve as a proxy for income-earning capacity. Thus, while a man with secondary education and a woman with no formal education may share a common standard of living while they are married to each other, the wife would be in a much more vulnerable position should they separate. Data that are already available (most probably from the census) on sex differentials in education can be very useful in survey planning since they provide an indication of where other sex differentials are likely to be found.

3. Mortality

In developing countries, the quality of data on mortality often leaves much to be desired. Yet because of the demographic importance of the phenomenon, a great deal of attention has been given to securing the best possible data on mortality through a range of estimation techniques (Shryock and Siegal [19]). Also, in contrast to a great many other topics, a high proportion of those who have studied the subject have been especially interested in sex differentials (Retherford [20]). Unfortunately, it is those situations where, contrary to the biological norm, female mortality exceeds male mortality that the data on mortality and especially female mortality are likely to be most defective. Thus, findings of excess male mortality at low levels of life expectancy in cultures where a special value is placed upon sons as opposed to daughters should always be carefully reviewed.

In general, data that show higher female than male mortality in childhood are likely to be of relatively high quality. The finding of higher male mortality in the first year of life is usually a genuine reflection of the masculine biological disadvantage but it may also be a consequence of a culturally determined greater likelihood of forgetting dead children if they are female (or of remembering dead children as having been male irrespective of their actual sex). There can be no more telling measure of the lower status of females than males in a society than the tendency to forget or ignore their existence altogether. This is why it is important to look at the recorded sex ratio of children as well as of the adult population, though the latter may need adjustment for migration.

Some forms of female mortality are especially likely to be missing from the records, such as deaths associated with childbirth and abortion. Where such data are available they provide an especially valuable indication of the situation of women.

D. Unreasonable expectations of national household surveys

In any overall portrayal of the situation of women in a particular country only some of the data will be amenable to collection in a national household survey. However well designed the survey, some data are not suited to this mode of collection. Some of the most common situations in which the household survey is not the right data collection tool are discussed below.

1. The data relate to the society as a whole

It is clearly not appropriate to use a household survey to study or to depict societal or cultural norms. Thus, for example, it would not be appropriate to study women's rights as defined in national laws. In contrast, it might well be appropriate to use a survey to measure the extent to which a right defined in law, say a right to a share of the family inheritance, is actually available in practice to individual women. Household surveys in some contexts are well suited to measuring the extent to which the theoretical situation of women is a reality in practice and especially the proportion of individual cases in which society's ideals are achieved. A society may have an ideal that women should be virgins at marriage yet survey data may show that a high proportion of first births are within the first six months of marriage or that a significant number of never-married women have been pregnant.

2. The data relate to attitudes rather than facts

A large-scale national household survey programme is generally not suited to the collection of attitudinal data. Attitudinal data are generally gathered in response to questions that are variants on "what do you think about ...". Such questions seek to look inside the minds of respondents; they should not be asked of proxy respondents. For example, what a man believes that his wife thinks about a subject may bear little relation to what she actually thinks. Equally there is no way of testing the accuracy of responses. It is possible to examine the answers given by a single respondent for possible inconsistencies, but humans are not necessarily consistent and, contrary to popular belief, there is no necessary relationship between attitudes and behaviour. Thus, a woman's attitude towards wage employment or abortion is not necessarily a good predictor of labour-force participation or of whether she has had or would have an abortion.

There is also an important question as to the use that is made of attitudinal data. Consider a hypothetical case in which persons in a national sample are asked whether they believe in equality between men and women. A highly negative response would certainly be an indicator of problems for the women's movement (although some respondents might have been thinking of greater rights for women), but a positive response may be a near meaningless indication of the politeness of respondents, their desire to appear modern or a lack of understanding of the implications of the question. Owing to the somewhat mechanical nature of a national household survey interview, where the interviewer has little opportunity to build up rapport with the person being interviewed so that they feel comfortable with the situation, attitudinal questions are especially difficult. The rule should generally be that a household survey should conserve scarce resources and interviewing time by including no more than two or three attitudinal questions. This limit should also cover questions on intentions as to future behaviour, which are no more than a special kind of attitudinal question.

Where proposals are made for the inclusion of attitudinal questions the first queries to be raised should be: Why are these data needed? What are they to be used for? Often the answers to these queries will reveal that an actual measure would in any case be preferable to an attitudinal measure. Thus, for example, a question on attitudes towards secondary schooling for girls could be replaced by a measure of the proportion of girls in secondary school incorporating a weighting for the availability of local facilities. In some cases, however, it may not be possible to avoid asking attitudinal questions. One example would be in studying the demand for formal sector employment for women in areas where the demand exceeded the supply. Demographers have had a great deal of practice in asking attitudinal questions on the demand for additional children and/or contraception in household surveys. Their experience does not result in a great deal of optimism as to the utility of such data when gathered in a broad context. Certainly, where attitudinal data are required the more clearly the questions can be specified the better, especially if some onus can be placed upon the respondent to provide their own measurement of the attitude. Thus, "At what weekly wage would you accept an unskilled factory job tomorrow?" is greatly to be preferred to, "Would you like to have a job?". In the absence of a local factory with jobs on offer, however, neither set of answers may be very meaningful in terms of their predictive value. Respondents without much formal educational experience are usually reluctant to answer hypothetical "what if" questions, and their wisdom in declining to join in what they perceive as a meaningless exercise should be respected.

One recent listing gives 34 indicators of female status that are commonly cited in the socio-demographic literature (Mason [14]). At least 20 of these indicators could readily be measured by a household survey though few have been in practice (table 1). Almost all of the data that it would appear to be inappropriate to attempt to measure by way of a household survey are attitudinal data. The chief exception is female underemployment, which would probably require an extremely intensive study to establish with a sufficient degree of accuracy to have any meaning. It is interesting to speculate on why so few of these indicators have been measured. One reason, presumably, is that insufficient attention has been paid to differentials within societies in matters such as the practice of purdah; another reason has been a general lack of interest in so-called women's issues.

Table 1. Commonly cited topics and indicators of female status

Fi	eld	Appropriateness of measurement by household survey
Demo	ographic	
1. 2. 3. 4.	Mortality differential Female age at marriage Age difference between spouses Preference for male children	Yes - for child mortality at least Yes Yes No - except through attitudinal data
Kins	hip-family	×
5. 6. 7.	Purdah Widows' marriage to husband's brother Polygyny Conjugal family households	Yes - can measure actual incidence Yes - can measure actual incidence Yes - can measure actual incidence
9. 10. 11.	Emphasis on lineage Female property inheritance Women marry into different village Yes	No Yes - possibly with some difficulty

continued

Table 1 (continued)

Fi	eld	Appropriateness of measurement by household survey
12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22.	Live with husband's family Dowry Arranged marriages Cross-cousin marriages Emphasis on virginity of brides Sexual double standard Emphasis on woman's youthfulness Make right to unilateral divorce Egalitarian nature of marriage Male feeding priority Extended kin support for widows plus divorcees	Yes Yes - unless it is illegal Yes No No - except through attitudinal data No - except through attitudinal data Yes - can measure actual incidence No - except through attitudinal data No - except through attitudinal data Yes - can measure actual incidence
Econo	omic	
23. 24. 25. 26. 27. 28.	Female employment opportunities Female labour-force participation Exclusion of women from extra- domestic activities Concentration of women in informal sector employment Occupational segregation of the sexes Sex difference in wages	To be developed Yes To be developed Yes Yes
29. 30. 31. 32.	Sex difference in leisure time Female education Female underemployment Women's work commitment	Yes - approximately Yes Probably not No - only through attitudinal data
33. 34.	Women's access to credit Women's access to non-familial supports	To be developed

Source: Based on The Status of Women, Fertility and Mortality: A Review of Interrelationships (New York, Rockefeller Foundation, 1984), table I.

There are cases where some of the more culturally specific of these indicators have been included in surveys. For example, cross-cousin marriage was found to be a useful indicator of the level of traditionalism in metropolitan Sudan (Richard <u>et al</u>. [21]). Data from Guinea show widow inheritance to be the normal practice there (Van de Walle [22]). It is possible to take a fresh look at the variables that might be included in a survey and to evaluate them both for their potential explanatory power and for the more immediate practical information that they can yield. What is needed is the courage to be prepared to look at new possibilities. Any one national survey should have a limit to the number of totally new areas covered, but a survey that is intended to focus upon improving data on the situation of women that does not cover any new areas is likely to indicate a lack of breadth of vision and awareness of the need to examine local cultural factors.

3. An intensive approach is required

Much of the data that would be highly desirable to obtain on relationships within the household cannot readily be acquired by means of household surveys using non-professional interviewers and where the maximum interview length is from one to two hours. To study matters such as decision-making within the household, an intensive anthropological approach is required. This is because in order to clarify, say, the financial relationships between spouses, lengthy questionning and the building up of a situation where the respondents (and almost certainly both partners to the marriage would have to be questioned separately) have confidence in the understanding and sympathy of the questionner are required. While it might be possible to have a single question designed to tap something of this reality in a national household survey context (see chapter III) the responses obtained would need to be treated with considerable caution. It might, however, be appropriate to have a small follow-up study in which the household survey questionnaire was the starting point, but further detailed questionning was used to investigate the meaning of responses to the single question.

In the past there has been some belief that questionnaire surveys are a good vehicle for gathering hard data, such as agricultural yields, and that anthropological approaches are only needed in the more sensitive areas of personal relationships. Today there is a much greater acceptance that definitions of so-called hard and sensitive data are themselves culturally determined and that the anthropological approach has insights to offer in all areas. Thus, for example, there are cultures where asking men whether their wives own land will generally be greeted with a negative response whereas the reality is that women are land-owners but mainly men do not discuss the fact.

4. The data relate to a rare category of persons

Wherever there is a rare category of persons and the object is to know what proportion of persons in that category are women, then it is usually more effective to work with a listing of the members of that category than to attempt to pick up the individuals in a sample survey. Thus, for example, women's representation in the national assembly is best calculated from a listing of members, and the proportion of female judges will be most readily obtained from the legal list.

Information on women's political participation at most levels above the grass-root level will usually best be obtained from direct sources such as listings of members of national, regional and local bodies. It is only when an activity becomes relatively commonplace that it is preferable to turn to the household survey. Thus, for example, it may be that trade unions keep figures on their membership by sex. If they do not, then it may be appropriate to ask about trade-union membership in a household survey, although consideration might need to be given to whether, if membership is largely restricted to the urban areas, the question might best be restricted to the urban sample. Depending upon the local context, it may be appropriate to ask all eligible respondents whether they have voted in local elections (if this is not a sensitive question), but it would only be efficient to ask about the holding of political office where this is a common experience because of the high proportion of office holders to total population.

Thus, not every form of data is suited to collection by way of a household survey, and it does no service to women to try and stretch the format into areas where it is not efficient or effective. Where appropriate, a background paper on information on the status of women drawn from other sources can be one of the publications of the household survey programme.

A list of topics on which data on women are needed together with potential sources and their suitability are given in table 2.

E. Resistance to changes in statistical collection programmes

There are various reasons for resistance to changes in data collection that would make the data collected a more accurate reflection of the situation of women. Some of the barriers reflect an understandable caution, others a lack of thought, which is, in some cases, a consequence of being too deeply involved in the day-to-day problems of collection and analysis to have time for reflection.

	Sources			
Topics	Population censuses	Household surveys	Other	
Women's legal rights	Nil	Maybe <u>a</u> /	Land registers, divorce statistics, criminal statistics and the like	
Women's education	Good	Good	Educational institutions	
Women's health	Nil	Fair	Health institutions, vital statistics, special demographic surveys	
Women in the media	Nil <u>b</u> /	No	Figures obtained from the media	
Women in politics	Nil <u>b</u> /	Grass- root level participati	Figures obtained from political organizations on	

Table 2. Data needs and potential sources

continued

Table 2 (continued)

	Sources		
Topics	Population censuses	Household surveys	Other
Women's economic activities	Poor	Good	Unemployment registration, special surveys and the like
Women's incomes	Nil	Fair	Income tax data, wage data from establishments
Women in the family	Some	Superficial	Fertility surveys

 \underline{a} / For example, by collecting data on land holdings and inheritance patterns.

b/ Unless the occupational data are detailed enough to cover these fields.

Among the causes of resistance are the following:

(a) Lack of knowledge, which may take the form of a lack of awareness of recent developments suggesting the need for change or may be the result of the awareness of problems without a knowledge of possible solutions. It should be recognized that most data collection agencies do not analyse the data collected beyond the preparation of basic tabulations. Hence, they are not aware of the deficiencies or inadequacies of the data for in-depth analysis. Also, some statistical organizations are so completely occupied in collecting data that they have no resources or time to utilize the experience gained in previous surveys to introduce changes in the subsequent rounds;

(b) Belief in the current system. Some of those who are aware of calls for change still feel that the existing statistics are adequate, especially those relating to households. Such a belief is sometimes reinforced when the available statistics have not been adequately studied. While there is a wealth of techniques for examining defects in demographic data the same attention has not been directed to possible defects in social statistics;

(c) Respect for precedents. Existing internationally accepted data collection models are not sensitive to special requirements for the collection of data on women that will be of the same high quality as data on men. Thus, the even best intentioned statistician in an over-burdened third world statistical office may well pause before implementing innovations of this kind having seen the lack of an appropriate range of international precedents;

(d) Technical problems associated with the introduction of changes. Major changes in definitions, in coding categories or in larger classifications would all disturb comparability both over time and across nations. Large-scale data collection exercises are rarely appropriate sites for major technical experiments. Smaller scale surveys can be used as trial runs. Very often in the area of collecting more accurate data on women, those involved appear to run a severe risk of letting the continuing quest for perfection be the enemy of the achievement of good practice in the near future. Anthropological techniques can provide important insights into the defects of existing data collection practices, but it is unrealistic to expect major surveys themselves to incorporate techniques such as participant observation;

(e) Cost, which may prevent the incorporation of new concepts, definitions, and methods.

An example of what can be done to overcome these barriers is provided by the case of the parallel surveys, Employment/Unemployment Survey, carried out in 1983 by the Indian National Sample Survey Organization (NSSO) (Jain [23]). In order to examine possible defects in the methodology of the major survey (then in its thirty-eighth round) and to suggest possible improvements, a sub-sample of those interviewed in the major survey were interviewed a week later using a range of different methodologies. The re-survey used both male and female interviewers, gathered time-use data for a seven-day period and collected income and expenditure data from individuals within the household. All of this additional activity was in a context that made it possible for the NSSO to use the sub-sample data to evaluate their own data and to see where defects were most significant.

F. Adjustment to local and cultural variations

There are real problems associated with the design of a questionnaire that could have equal relevance in developing countries around the world. The situation of women is almost certainly one of the social phenomena with the greatest range of cultural variations. In looking for a common factor approach, there is a real risk of ending up with a questionnaire and overall survey design that represents the lowest common denominator and that is thus appropriate to no particular place.

Since formal questionnaire design is in origin a Western concept, it is often the case that even questionnaires designed in developing countries (although often by Western-trained professionals) incorporate a number of Western biases. One good example would be an implicit attempt to squeeze family relationships into an inappropriate nuclear family model of employed husband and dependent wife and children (but no other dependents) sharing one house and one budget with no one else. This unfortunate trend is often reinforced by the prestige of international models and a natural reluctance to experiment with a new variant appropriate only to local conditions. This tends to happen even where there is no specified desire to maintain international comparability.

Marriage provides a good example of a phenomenon with clear relevance to the situation of women, whose form varies greatly around the world. While formally monogamy is the most common structure, there are whole societies where the ever-present option of polygyny hovering in the background has a potential impact on all marriages (Ware [24]). In simple terms of sampling and questionnaire design, there are vast differences between a situation where a marriage unites one man and one woman to the exclusion of all others and those situations where a man may be married to many wives, making questions about the rank and number of co-wives vital. Equally there are cultures where it is not common practice for husbands and wives to live together in a single dwelling because either the men live together in a men's house or both spouses stay with their original families. Even where there are common housing arrangements spouses do not necessarily share a common budget. It is necessary to stress these possible divergencies from the so-called standard pattern because model questionnaires often leave no scope for variations such as these to be taken into account. There are many finer points of cultural differences that the household questionnaire format cannot easily deal with. Where distinctions are major, however, and as readily quantifiable as the number of wives per husband, these should be recorded.

In some societies sexual relations are largely restricted to marriages, in others there is a wide range of variations in cultural patterns with many visiting relationships and consensual unions and other stages besides full formal marriages. In some cases a riot might ensue if unmarried women were asked about possible children born outside of marriage, in others it would be impossible to understand economic relationships or fertility patterns without such questions. These cultural decisions should be made by local professionals, who will still need to bear in mind that even within very traditional cultures not everyone obeys the rules and also that the interpretation of the obligations imposed by the rules may vary greatly from class to class.

In deciding upon the nature and extent of adaptations to be made to a general survey to meet the needs of local cultural conditions, it is important to understand the limits to the importance of international comparability. Although comparability is understandably a priority for international agencies (who may be helping to fund the survey), there is little point in squeezing round pegs into square holes just to achieve comparability internationally. This issue is different from that of comparability over time within one country. There are many practical reasons for wishing to maintain comparability over time within a country in order to be able to measure and study change. The practical reasons for wishing to maintain international comparability are less numerous. The ideal, as will be explained further in chapter III, is to use a building-block approach that can make it possible both to maintain comparability between some of the bricks and to allow the expansion of concepts to meet local needs by the addition of further bricks. In any case, the gains and losses associated with the maintenance of comparability need to be carefully weighed against each other, with those who are debating the issue having the honesty to admit to the biases in their own arguments.

G. Background to suggestions in the present report

The suggestions in the present report are intended for practical use rather than as a distant ideal. For these reasons it is important to give a clear picture of the conditions under which these suggestions can be put into practice in the field.

Local conditions will inevitably vary but the listing below sets out the basic conditions required:

 (a) An existing household survey capability of some sort and hence a team with some practical experience of both field work and subsequent analysis; (b) One or more persons with a personal interest in innovations to improve data on women. Prophecies on field-work are often self-fulfilling. A belief that an innovation cannot work will doom it from the start, conversely, enthusiasm can be harnessed;

(c) The possibility of carrying out a small-scale pre-trial to adapt suggestions to local conditions. Even 200 interviews, 50 each in an urban area and three rural areas with different cropping or cultural patterns could be sufficient with sufficient direct involvement by those who have to design the major survey;

(d) A final sample size of at least 2,000 households (or possibly 1,500 in a very homogeneous society);

(e) A planning committee with a significant representation of women members (some with rural backgrounds) and strong participation by persons who can be expected to use the data (or who are currently using imperfect data in this area);

(f) The possibilities of providing special training to the interviewers and of developing a core of female interviewers.

H. Goals of the household survey

It is important that the relationship between the population census and the household survey programme should not be seen as one of competition, but as an additive process in which the sum of the parts is greater than the individual components. The census must inevitably provide a broad-brush portrait of the situation. The household survey, with the possibility of asking, say, ten times as many questions, can fill in finer detail albeit only for a sample of the population. In addition a census is usually undertaken at a 10-year interval while household surveys can be done much more frequently, even quarterly. Thus, the household survey can also enjoy more rapid methodological advance than the census. New methodologies and especially new questions can be tried out in household surveys both to provide improved data in the short-term and to suggest long-term improvements to the census format. Equally, in the short-term the findings of the household survey can create awareness of possible deficiencies in the census data while suggesting appropriate correction factors to be applied.

Although the household survey does have the scope to investigate a much broader range of questions than the census, the greatest improvement in the availability of high quality and useful data on women will come from concentration on a limited number of areas. The present report argues strongly that there are four major priority areas where survey data can, via improved policymaking and planning, make a significant contribution to the improvement of women's lives and that data collection should focus strongly on these areas. They are the following:

(a) Female resources: education is the most obvious example; responsibility for child-care may be a negative resource;

(b) Female economic activity: that is, the work that women actually do whether paid or, more commonly, unpaid; (c) Female poverty: poverty is more immediate than lack of resources, which for the married woman may mean potential rather than actual poverty. Actual poverty is not getting enough to eat and lacking other basic necessities;

(d) Female-headed households: these are commonly assumed to be synonymous with female poverty, but this assumption is one that merits investigation.

The remainder of the present report is devoted to an investigation of how these goals may be achieved, given limited resources and the need to examine the situation of women in absolute terms and in comparison with that of men.

II. STAGES OF WORK IN PLANNING AND CONDUCTING A HOUSEHOLD SURVEY IN WHICH THE SITUATIONS OF WOMEN AND MEN ARE RECORDED WITH EQUAL ACCURACY

Conducting a balanced household survey that results in an equally accurate representation of the lives of women and men alike is not simply a matter of asking the right questions. There are a considerable number of other vital steps that need to be taken. This chapter deals with the aspects of the survey other than actual questionnaire design.

In the area of the promotion of equal opportunity in employment for women, it is now common practice to have a carefully designed series of stages through which such programmes should progress if the advancement of women is to be achieved as rapidly and efficiently as possible (Australia [25]). In the case of survey planning, it is equally important that women's issues should be taken into account at each stage, but to date there are few guides to the practice or discussion of the methodological issues involved (Anker [12], [26], [27]). A check-list of important factors other than questionnaire design that influence the quality of survey data on women and that should be carefully reviewed in the course of survey planning and organization is given below.

Check-list of important factors other than questionnaire design that influence the quality of survey data on women

Survey organization factors

- 1. Sex composition of the survey organization team
- 2. Sponsorship of the survey (nationally and locally)
- 3. Publicity for the survey
- 4. Rewards for participation in the survey (tangible and intangible)
- 5. Timing of the survey during the agricultural cycle

Interviewer effects

- 1. Sex of interviewer
- 2. Training of interviewer
- 3. Previous experience of interviewer (on other surveys)
- 4. Social background of interviewer

Respondent effects

- 1. Sex of respondent
- 2. Use of proxy respondents
- 3. Perception of the purpose of the survey
- 4. Sex differences in language facility of respondents (knowledge of lingua franca, technical terms and so on)

Stage 1: Securing official commitment

The first step in establishing a balanced, gender-neutral household survey (that is, one in which the data on both sexes are equally extensive, representative and accurate) is to secure official commitment at the highest level possible. expand upon the past rather than to abandon it. It is only where past practice is quite unsatisfactory and cannot be salvaged that it may be necessary to start afresh.

In this context one important approach is the building-block approach. In this method the aim is to develop composite measures made up of a series of individual building blocks that can be combined in a variety of different ways to achieve comparability with the past, to examine sex differentials when using different definitions, and so on. It is recognized that this approach may well multiply the number of questions, in some cases with apparent overlapping, but the counter-balancing reward is that it is possible both to measure change over time since the last survey and to try out improved methodologies. When using such an approach, however, it is important to recognize that it is likely to be most effective where only a limited number of core issues are treated in this way. The scattering of effort rather than concentration on half a dozen major issues is likely to have the consequence of producing inferior results on all fronts.

Stage 6: Questionnaire design

The substantive issues concerned with questionnaire design to improve the quality of data on women, and also on men, are covered in part two of the present report. On the process of questionnaire design it is perhaps sufficient here to say that newcomers to the area often fail to appreciate how wide the gap may be between what information is desired and what can actually be asked. It cannot be asked: "What proportion of the market production of the household are you responsible for?". One aim is to involve the policy makers and planners who will use the data in determining how it is to be collected, but it is helpful for them to appreciate at the start that concepts to be dealt with need to be translatable into basic everyday language as used, for example, by peasant farmers (women or men). This is not just a question of levels of refinement of vocabulary but of clarity of thinking. To paraphrase Einstein, any theory can be explained to a 10-year-old child, otherwise it is not valid.

Stage 7: Decisions on the organization of the field survey

Interviewer selection

While at first sight it might appear that an all-female interviewing force would be the ideal, this is not necessarily so. For example, if local household surveys have previously been conducted by all-male interviewing teams it may well prove to be difficult to recruit an all-women team because of the need to start afresh and because of the persistence of the cultural factors that originally resulted in the all-male teams. It may also prove to be counterproductive because it breaks with the principle of keeping continuity with the past discussed under stage 5 above. For both organizational and data-gathering reasons, the ideal might be to recruit mixed teams with approximately equal numbers of both sexes and to record the sex of the interviewer on the questionnaire so that the possible impact of the sex of the interviewer can be examined.

Although little research has been carried out on this topic in developing countries, it appears that the sex of the interviewer is of markedly less importance than the quality of training and motivation of the interviewer except where there is an absolute cultural barrier to cross-sex interviews (e.g., Anker [12]). Cultural barriers to cross-sex interviews, especially where females are to be interviewed by males, often tend to be over-stressed. Poorer sections of the community may have less rigid views on these matters than middle-class officials; a class difference between the interviewer and the interviewee may also obviate the problem. Women themselves may prefer to be interviewed by other women, but the community of interest between an educated young interviewer and a respondent who is an illiterate grandmother may be limited. This is certainly a matter that could and should be investigated during the pre-test.

Interviewee selection

The selection of who is to be interviewed presents a number of difficulties. In many cases the past practice will have been either (a) to interview the "head of household", perhaps conventionally considered to be the oldest male present or whomever the household happens to put forward under that title; or (b) to interview any adult who is available when the interviewer calls.

Depending upon the culture, available adults may be more likely to be women because the men are more likely to be travelling or working at a distance from the house. While at one level the ideal might be to have every adult person interviewed who is able to respond on their own behalf, this could well prove to be a time-consuming and expensive process. It might also prove to be difficult to organize in those circumstances where there are genuine cultural barriers to women being questionned by men and, owing to the same cultural constraints, a marked shortage of female interviewers. What is needed is that the pre-test be designed in such a way as to allow the impact of the interaction between the sex of the interviewer and the interviewee to be adequately examined.

One problem is likely to stem from the need for some simple indicators of the quality of the data in order to test the effect of the sex of the interviewer and the interviewee and also the additional impact of the difference between direct responses by the individual and responses made on their behalf by a proxy respondent. In highly sex-segregated cultures where these issues are of most importance it is often the case that each sex knows relatively little of the lives of the other.

Timing of the survey

Even the timing of the survey can have unanticipated consequences in terms of possible sex biases. In agricultural communities with strong seasonal differences in work-loads the timing of surveys is very important, especially if there are marked sex differentials in the timing of agricultural work, as for example where men clear the ground for a crop, women plant and weed it and men harvest it. Clearly questions with a short reference period will receive markedly different answers depending upon the season. The solution is not to schedule the survey during a period of heavy agricultural activity for either sex, rather the reverse, but to use questions that cover the year's activities as a whole even if it is necessary to go through them activity by activity or season by season. It is helpful to have the field survey in a slack season for work, provided that it is not also a time when rains or other factors make mobility for interviewers difficult. The timing of interviews during the day may also have a differential impact on the level and accuracy of responses for women and men. Men are more likely to be either in a situation where their work prevents simultaneous interviewing or at leisure to concentrate upon the interviewer's questions. In contrast women's tasks may be more compatible with talking at the same time, but the quality of data secured while the respondent is also preparing vegetables and keeping an eye on an infant has yet to be investigated. Another issue is the presence of other persons during the interview, which can be a deterrent to obtaining accurate responses. Finally, it needs to be remembered that in many cases women are more likely to have difficulty in answering complicated questions because of both their lower average level of education and their lesser experience in public discussion and debate. Simple questions are advisable in all cases but especially for busy women.

The language(s) of the survey

In those cultures where women play a significantly lesser public role than men, it is often the case that they speak a different language. In some instances, this may be literally the case, that is, while the men who are in the habit of travelling will speak the common language of trade in the country, the women who generally stay in the home village will speak only their own minority language (Ware [24]). As a consequence, when interviewing in these villages, either the men are the only respondents or it is necessary to employ interviewers who speak the local language. This is an extreme case. More commonly the problem is rather that the women tend to speak more in the regional dialect than the men and also find it much more difficult to understand questions posed in the standard language rather than the dialect. In other cases the differences, rather than involving degrees of dialect divergence from the standard language, involve different degrees of formality in speech and an in-built awkwardness when high-status interviewers (especially males) have to interview low-status respondents (especially females). An awareness of local conditions and a willingness to bend with the local culture rather than to try to force the respondents into unfamiliar moulds will solve many problems.

It is assumed that the core questionnaire will be written and printed in the major national language that will be the language normally spoken in the statistical office. In countries where more than one language is in common use problems of translation arise. Where questionnaires have to be translated the following procedure should normally be adopted:

(a) "A" (preferably a group of men and women = A) translates the questionnaire from the original language into the minority language;

(b) "Bs" (several individuals, both males and females, working separately), translate the new minority language questionnaire back into the original language (Bs should be people who have never seen the original questionnaire);

(c) Researchers compare the reverse-translations with the originals and compile lists of problem words and phrases;

(d) Researchers call a meeting at which As and Bs discuss the listing of problem words and phrases as well as any general problems and together decide on the final text for the minority questionnaire.

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To those who have never tried this experience it may seem implausible that male and female translators will have a different understanding of the questions, nevertheless this may be the case. Other problems may also emerge: in one case in an African country the language used by the male interpreters was understood by their female colleagues but considered to be obscene. The men who were not in the habit of discussing parts of the body with women did not realize that the terms considered obscene were not the same terms used by both sexes.

While in every possible case there should be a printed questionnaire in each of the languages used, in some cases where only a very small number of interviews are to be conducted in a minority language this may not be practicable. Even a photocopy of a handwritten translation for each interviewer to carry, however, is preferable to allowing interviewers to improvise their own translations on the spot. Wherever translations are used special efforts to improve interviewer training are required, otherwise questions carefully designed to be sex neutral in the original language will emerge in translation clearly specifying the sex of the person to be nominated as household head, farmer, chief breadwinner and so on. When analysing apparent ethnic differences at the tabulation stage it is important to be sure that the differences found are not simply the consequence of differences in translation.

These questions of translation relate to a more general point about the use of language. In some instances the language used to refer to men and women who do exactly the same things may be different. This is especially common in the case of occupational descriptions: the male small entrepreneur becomes the female petty trader; the male farmer becomes the female farmer's wife (in standard English, while a peasant may be of either sex, a farmer is understood to be male); the son working in his father's business is self-employed while his sister is called an unpaid family worker before there has been any attempt to determine if there are any differences in status between the two siblings. In other cases the differences may be more subtle but their overall effect is still, by the use of language alone, to belittle the contribution of women.

The use of technical language in the questionnaire may also put women at a disadvantage. Through their public contact and their training men are much more familiar with what are considererd to be the proper terms in many cases. This may be especially relevant in discussing matters such as agricultural practices. In one instance, when husbands and wives were asked separately whether they discussed various things with their spouses, men gave far more positive responses than their wives. It emerged that women felt that they talked about things but that discussion was an activity restricted to a more formal context such as all-male coffee shops.

The rural-urban division

Depending upon local conditions it may be necessary to consider dividing the survey into two parts: one being an urban survey and the other a rural one. It is likely that the organizational aspects would differ between the two contexts and it may also be that the use of somewhat different questionnaires would be appropriate and improve the quality of the data. Both questionnaires would share a common core of questions on matters that are common to both samples, such as demographic topics, but would also have separate sections focusing upon different interests, especially for dealing with economic activities. Care should be taken not to create a false dichotomy between the two; for example, it might be very significant to know the extent to which urban dwellers are also landowners in the rural areas. Equally it is important to be sure that the questions do not indirectly impose false stereotypes upon the respective populations by suggesting, for example, that the urban population will necessarily be more sophisticated than the rural population.

Nevertheless, from the point of view of improving the quality of data on women there are strong arguments for separate questionnaires for the rural and urban samples. There is a case for saying that almost every farmer's wife is by force of circumstances a farmer too and the rural questionnaire should allow full scope for women's agricultural tasks to be investigated in some detail. In the urban areas the situation is often very different. Wage employment is much more common, family enterprises with a single budget for all members and for consumption and business are much less common. Other factors also differ: child-care conditions and children's economic contributions to the family economy are likely to be very different. Urban dwellers may find that government policies and services have a much more immediate impact upon their daily lives. Particular groups, such as female household heads, may well make up a much more significant proportion of the total population in the urban areas and will also face very different social conditions.

The decision will certainly depend upon local conditions but separate surveys should certainly be considered, especially where there is any thought of using a multi-round survey in the rural areas to pick up seasonal differences in behaviour patterns. Where separate surveys are decided upon, one important consideration will be to ensure that the questions on rural-urban (and urban-rural) migration are adequate and enable migration to be treated as a topic with a blended coverage of both aspects.

Stage 8: The pre-test

The pre-test is always a vital stage of any survey, but where new methodologies are being adopted the pre-test becomes crucial. It is also essential to allow enough time between the pre-test and the field survey for analysis of the experience and the results of the pre-test to be used in the final survey.

Adequate pre-testing is especially important in areas where local cultural factors are likely to be involved. Questions concerning women's roles certainly raise cultural issues and there are likely to be unforseen problems with adopting questions successfully used elsewhere. The pre-test is the point at which theory and practice first come into clear confrontation and the possible is distinguished from the ideal. Where there has been disagreement among the planners as to the feasibility of certain innovations, these can be put to the test. New ideas that have rational support should not be weeded out before the pre-test but allowed to have their testing by fire at this stage.

Not all pre-testing needs to be done in the standard interviewing situation. One very effective way of refining questions, especially questions that present difficulties, is to have them discussed in small group meetings of ordinary people to whom the questions are relevant. Experience suggests that this method is especially effective in all-women groups where there is a woman who can explain what the surveyers are trying to find out and then talk to the
village or slum women about how best to get the required information. In southern Nigeria, a group of women organized in this way suggested for an infant mortality study that since women were extremely reluctant to talk about the death of their babies the best approach was to ask women about the experiences of their immediate neighbours. Asking each woman about two of her neighbours and then cross-checking the results doubled the recorded infant mortality rate.

For an innovative survey, allowance of sufficient time for the adequate analysis of both the experience and the results of the pre-test is so vital that analysis of the pre-test as a learning experience should clearly appear as a separate stage in all survey planning. With new developments it is not possible to know in advance what will work best or, indeed, what will work at all. Often people do not know their own cultures as well as expected and in this case there is the additional difficulty that almost everyone believes himself or herself to be an expert on women. Thus, the planning committee may be firmly convinced that female-headed households are extremely rare and thus unwilling to devote many questions to a topic that the pre-test may reveal to be of much greater significance than was anticipated.

One important aspect of the analysis of the pre-test is the examination of levels of non-response and not applicable codings. Ideally, in a survey all questions are answered by or for those to whom they are applicable and there are no non-response codes. If the pre-test shows markedly more failures to respond for females than for males, then that is an indication of problems with the questionnaire and an examination of the individual questions that are most significantly affected should provide an indication of where to look for biases. Another related measure of difficulties is the proportion of respondents of each sex falling into the category "other" on individual questions because they cannot be fitted into any of the more specific precodes.

"Not applicable" codes are in a different category since it is valid to have a certain proportion of such codes. To have too many "not applicables", however, is wasteful and suggests possible defects in the survey or questionnaire design. To have major sex differentials in the proportion of "not applicable" codes should also raise questions as to whether the "not applicables" are indeed not applicable. For example, in a context where married women cannot be independent landowners, interviewers may get to be so used to using the not applicable code for women on the landowning question that they forget that widows may be in a different situation. It is also important to check that the proportion of not applicable codes does not rise steeply in cases where a proxy respondent rather than the individual themself is answering the questions. It is certainly not appropriate, however, to allow attitudinal questions to be answered by a proxy respondent. Equally, where it is believed that one sex does not know about the affairs of the other, for example, a wife does not know her husband's income, the first assumption should be that the converse is also true rather than a blanket assumption that men will always be better informed than women.

Stage 9: Advertising the survey

One issue that needs to be considered is how the survey will be advertised. The local statistical office is likely to have a general policy on how surveys are to be publicized. The question in this case is whether to have some special promotion concerning the importance of the survey for women. Publicity by way of sponsorship by well-known and respected women at both the national and the village level can be very rewarding, as can ensuring the involvement of local women's organizations at the grass-root level.

Stage 10: Training the interviewers

It is difficult to over-estimate the importance of the training of interviewers in reducing sex biases in the process of data collection. The high quality data of the World Fertility Survey [10] were secured after an average of three weeks of training for the interviewers accompanied by the extensive use of tape recorders to monitor actual interviewing practice and let interviewers hear their own mistakes and special quirks (Scott <u>et al</u>. [28], p. 21).

Almost any good quality training is likely to reduce sex biases because it will make interviewers aware of the nature of the interviewing process and its purpose and will train them in the concepts being used. In addition, there are a number of special steps that should be followed in training interviewers:

(a) Explain why it is important to have good quality data for both sexes alike;

(b) Train interviewers to think in and use non-sex-specific language (e.g. in English to use the plural "they" as opposed to the singular that requires a distinction between "he" and "she");

(c) Explain to trainee interviewers the particular concepts that cause difficulty, e.g. household head, work and wage work;

(d) Ensure that the trainees practice in interviewing persons of both sexes and are conscious of possible differences required in the approach. Even where it is not culturally acceptable for men to interview women in the villages or vice versa, in the training interview situation, it is valuable for both sexes to have this experience;

(e) Provide an interviewer's manual that is carefully balanced with male and female examples (and drawings if such are used) and gives examples of women in unconventional roles;

(f) Ask the trainee interviewers to estimate the proportion of women likely to be found in certain categories and then discuss with them the difficulties with any stereotypes that appear. While there are some dangers in that it might suggest to interviewers what they are expected to find, the alternative is to find interviewers adversely prompting respondents where their stereotypes are not met by the answers. The more the interviewers, especially those who have previously worked on male-oriented surveys, can be persuaded by discussion to approach matters with an open mind, the better the results will be;

(g) Have the interviewers, if possible, do six practice interviews, three male and three female, and write up and/or discuss the differences. An alternative, and one with wider applicability for educated interviewers, is to ask them to keep a diary of their more memorable interviewing experiences and offer a prize for the best one. Selections from the diaries can subsequently be useful for adding a human touch when publicizing the results of the survey.

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Stage 11: The survey itself

If the survey and the questionnaire have been designed with care and the interviewers are well trained, by the time that the survey enters the field the major problems should have been resolved, although there will inevitably be a whole host of minor problems that crop up. It is important to maintain close supervision in the field, which is a major factor in securing high quality data in general and in ensuring that the sexual stereotypes that the interviewers were trained to avoid do not re-emerge in the routine of field work. One reason why so many women are often inappropriately recorded as engaged in what are termed home duties only is that this saves a considerable amount of work for the interviewer compared with having to ask several detailed questions on part-time or seasonal work. Hence the need for vigilance in the field.

One problem that is likely to come up and that can be forseen is how to deal with the interviewing of women who are not regarded as being respectable. In many societies there are categories of women such as prostitutes, bar girls, illicit beer-brewers or beggars, who are not regarded as being within the bounds of respectability. Interviewing such women can pose special problems that need to be envisaged and decisions need to be taken on how such women are to be handled. If they are omitted from the survey (as occupational data suggest they often are), then the portrayal of the level and nature of female poverty in the society may be extremely misleading.

Stage 12: Coding and editing

The coding and editing plans should be examined to ensure that inappropriate sex-biased coding or editing decisions are not specified. Equally, the actual implementation of the coding and editing work should be monitored to ensure that unbiased practices are indeed maintained [6]. One of the many advantages of using questionnaires that are extensively pre-coded is that the pre-codes can be designed to avoid these problems and to ensure standardization.

Women are liable to be invisible in surveys. This invisibility does not refer only to a simple failure to count women and children that certainly does occur, especially in cultures where there is a strong preference for sons rather than daughters (the Afghan Demographic Survey 1971-1973 found 116 males for every 100 females). It also refers to the ways in which the questions are posed and the data are coded and processed. For example, insofar as it is true that men are more likely than women to be participants in the modern sector, then a focus on that sector will tend to exclude women. Thus questions on wage labour, which may already have been well covered by earlier surveys, may cover many more men than women.

This trend can be aggravated if, for example, the coding of wage occupations is such that occupations in which males predominate are identified in great detail in numerous categories while occupations in which females predominate are dumped into a few broad groupings such as clerical work and petty trading in which there are no sub-groupings. These examples are drawn from labour-force data, which are commonly not pre-coded, but the process tends to be cumulative across a broad range of different types of data from education to income. This last will happen if income brackets at the lower end of the scale, where women are more likely to be found, are not markedly narrower than those somewhat further up the scale, where males predominate. This case of income bands provides an example of where improving the categories for women should improve the categories overall since graduations of poverty are of considerable general interest.

The cumulative effect of the relegation of the majority of women to large and relatively amorphous categories can be substantial. In an extreme case it might be found that 60 per cent of all adult women are classified as unschooled housewives with no income. This may be a true reflection of reality or it may be the consequence of a failure adequately to measure women's characteristics. Where many women do appear to fall in one category at the pre-test stage, it is worth asking whether an additional question could not disaggregate the category. Thus, for example, although many older women may never have been to school, some of them may have been to adult literacy classes or attained some degree of training by other means.

In the editing process the two basic needs are to ensure that women are not disproportionately represented in cases where there is no information and that accurate data on women are not edited out because of stereotyped expectations. One example is the 1971 Australian census, where the editing programme removed all women from 84 of the 300 major occupational groups. This was because those who designed the editing programme could not believe that women were working as well-drillers, deck hands, hunters and trappers, railway guards, furnacemen, mineral treaters and the like. In 1976, when this editing practice was abandoned, small numbers of women were found in all of these occupations.

Stage 13: Preliminary tabulation and analysis, and publication of the results

Part three deals in detail with substantive questions of tabulation and analysis. The present section is concerned with the process involved. The timely production of results is of crucial importance to the maintenance of momentum on securing improved data on the situation of women and men. Often one of the major reasons why policy makers have relatively little interest in survey data is the length of the interval between survey field-work and the production of usable results. One way of reducing this interval is by a recognition that the first publication will be a preliminary one setting out the bare bones of the information gained and that more refined analysis will appear later. This bare bones publication can be an extremely simple one. A possible format is given below. The important factors are that it should appear early and that it should be widely distributed to all those who are or should be interested in its contents.

Format for a preliminary publication of survey results

- 1. Brief introduction describing the survey and the reason it was undertaken (can be written before the analysis).
- Definition of the concepts used, e.g., household head, economically active.
- 3. Basic cross-tabulations:
 - (a) For all major questions relating to the characteristics of individuals: <u>a</u>/

Responses by age and sex Responses by sex, age and marital status Responses by sex, age and education Responses by sex, age and rural/urban Responses by ...

(b) For all major questions and categorizations relating to the household as a unit:

Responses by sex and marital status of household head Responses by sex and number of dependents of household head Responses by sex and chief source of income of household Responses by ...

4. Copy of the questionnaire.

a/ Because there are only two sexes, presenting cross-tabulations of sex plus two other characteristics should not present any major problems.

One way of publicizing the results of the survey at this point is by holding public seminars of those involved in the relevant subject areas, controversy over the findings at this stage may be helpful in promoting actual use of the survey data. Equally, getting some of the more striking results featured in the press and promoting comments by public figures all help to prevent the survey data from being ignored, as is much data of this kind.

When planning the progression to the more substantial analysis and final definitive publication, it may well be that the statistical organization responsible for conducting the survey may wish to search for a collaborating institution that has staff with the specialized skills and interests and the time available to assist it. Obvious candidates would be a local university or research institution. In setting up such a collaborative arrangement, it is wise to consider the likelihood that the leaders in this field will be extremely busy with prior commitments and that it is therefore as important to look at the capabilities of the support staff as at the reputation of the leader. In the particular context of data on women, there is much to be said for looking to the new generation of the recently qualified who are setting out on their careers as being more likely to include a significant sprinkling of female researchers with the time and the commitment to work on the data.

Again in this context, one urgent question that arises is how to make the results accessible to decision makers and the public, and especially to women. Special seminars, as suggested above, may be part of the solution. There will also be a need, however, for a special popular publication aimed at women to ensure that the data are used and that their significance is appreciated. This publication on women should be attractively presented, perhaps with pictures and alternating pages of figures and explanatory texts and graphics, with illustrative key statistics picked out in the text. Percentages should only be presented to one decimal place since the data are rarely accurate enough to justify more, and nothing is more off-putting to the reader with no more than basic numerical skills than the appearance of several figures after the decimal point. Such a publication can be promoted with a preface by a well-known woman who is a public figure, and by a public launching in the media, which may need to be trained not to trivialize the issues involved. A good example of a publication with an accessible presentation is the well illustrated <u>Women in</u> <u>India</u>, presented as a country paper by the Indian Ministry of Social and Women's Welfare [6] to the World Conference to Review and Appraise the United Nations Decade for Women: Equality, Development and Peace, held at Nairobi in 1985.

The present discussion may appear to place an undue emphasis on the details of publication, but data should not be collected only to gather dust or to provide responses to international questionnaires or source materials for foreign researchers. To avoid this sad waste of the resources devoted to the survey it is reasonable to build an adequate estimate for publications into the cost estimates for the survey as a whole. Not to do this is rather like building a train that has no tracks to run on.

The question of the more extensive second-stage analysis is dealt with at length in part III below. The chief point to be made here is that consultation on the analysis plan is just as important as consultation on the design of the questionnaire. Only limited resources are likely to be available for the analysis and it is crucial that the information produced should be that which will be of the greatest practical use to policy makers and planners.

Stage 14: The next survey

In one sense, the final stages of the first survey only begin to draw to a close when the next survey is being planned and the lessons learned and the experience gained are used to improve that survey. Hence the vital importance of continuity and not allowing hard-won experience to be dissipated. The ideal would be to have clear written records of what was done as well as the memories of those who participated in the experience and learnt by so doing.



PART TWO DESIGNING THE QUESTIONNAIRE



III. GENERAL PRINCIPLES OF QUESTIONNAIRE DESIGN

All of the general principles of good questionnaire design are still applicable when the goal is to design a questionnaire that provides equally accurate data on the situation of women and men. There are several points, however, that need to be stressed in this context.

A. Avoiding sexist language

Sexist language is language that has a bias towards one sex or another. In the context of a questionnaire it is often language that suggests to the respondent the sex of the person to be named in the reply. Examples would be: "Who is the master of this house?"; "Who holds this land?"; "Does he own it, rent it, or hold it by sharecropping?"

The kinds of problems likely to be encountered with sexist language depend very much on the individual language being used. English is especially awkward because there is no singular pronoun referring to people that does not reveal their sex. The solution is either to use the formulation "Does he/she ...?" or to use a plural and sexless "Do they ...?" Another problem with English is that many occupational titles specify the sex of the person expected to engage in that occupation. Examples are fisherman, furnaceman and so on.

Such problems are clearly language specific. The only general rule that can be given is that each question should be checked to make sure that it does not prejudge the issue as to sex roles. Often problems will become clear when someone who is not familiar with the draft questionnaire is asked to read it out aloud to question a woman and it is seen that they have to keep adjusting the wording to make it applicable to a female respondent. In a language where it is not possible to avoid specifying the sex of the individual and therefore the awkward he/she formula has to be adopted, care should be taken to vary the order to have she/he sometimes and he/she sometimes. Otherwise, in always putting one sex first another possible bias is introduced.

Another way in which sexist language may influence the survey is where examples are given in questions to help or prompt the respondent and these examples favour one sex or another. An example would be: "Is there anyone who sends back money on a regular basis to this household, for example, do you have a son working elsewhere?" Sometimes the biased examples are not in the questions themselves but in the instructions given to the interviewers. In the interviewers' manual for one Latin American population census all the examples relating to labour-force participation were illustrated by line drawings of men at work; women were only shown as students or housewives.

Many language problems occur because the concepts used by the survey takers are not familiar to the people who are being interviewed. To take a simple example: the question "What is your occupation?" is commonly included in surveys yet it is far from obvious how it should be translated in many languages. "What kind of work do you do?" or "What is your job?" are not complete substitutes since they carry different implications and are likely to evoke different responses. Language can be a real barrier to securing information. In a certain Hausa area of northern Nigeria the population census recorded only 1 per cent of women as having a trading or clerical occupation, yet surveys showed that two thirds of all women did, in fact, engage in some

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form of trading from their own homes. Yet because trading was not their primary or full-time role it was not regarded as an occupation.

Where there are occupations that are extremely common and women are preeminently thought of as housewives the occupation may not be recorded simply because it is so common. For example, in a village where almost all the women make fishing nets for sale in every spare moment, fishing-net making may not appear as an occupation because "everyone does that". In the Hausa language there are actually quite separate words with different roots to describe males and females who work for wages. Even though the women in the areas mentioned above were strictly secluded, half had performed some work for wages in grain grinding and other food-processing tasks. The Hausa language actually distinguishes work that is performed for wages and the same work when no wages are involved. Thus, for example, the words used for sewing or weaving will vary according to this criterion (Simmons [30]).

The translation of questionnaires is always a task requiring a high degree of skill and knowledge of the intricacies of both languages. Special care needs to be taken to ensure that the translation does not impose unintended sexual biases upon the questions.

B. The building-block approach

In designing a survey questionnaire with a new focus there is always a natural and important concern to maintain comparability with earlier data sources. The most effective way of doing this without being forced to continue to use questions with known defects and imperfections is to use the buildingblock approach. In this approach, a series of building-block questions replaces a single question so as to make it possible to combine the responses to the series of sub-questions in a number of different ways to meet the needs of different users, and to allow both the maintenance of comparability and the introduction of valuable changes. One of the questions in the sub-series needs to be the earlier question needed for comparability. (In some cases, in order to avoid confusion, it may be preferable to place this question at a different point in the questionnaire.) The other sub-questions can then introduce refinements by soliciting additional information or by dividing larger categories into their individual components.

One area where the building-block approach is likely to be especially important is in the collection of data on labour-force participation (see chapt. VI below). Here the possibility of having new and more accurate data would lose some of its value if there were no possibility of measuring the impact of the use of the new questions independent of the impact of actual changes in labour-force participation since the previous survey or census. Thus the analysis will show changes in participation using a constant definition and the impact of extending the definition.

The building-block approach has the following advantages:

 (a) The maintenance of comparability and the introduction of improvements are made possible;

(b) The needs of users with different needs and concerns can be met;

(c) Much more exact measurement than a single question is possible;

(d) The understanding of the processes that underlie the data can be improved;

(e) It makes it easier for the data to be analysed from different viewpoints, including those not envisaged at the time that the data were collected.

Possible disadvantages of this approach are as follows:

(a) More questions are required;

(b) Some confusion can result if interviewers, data processors and users are not well trained in how the different blocks are combined to yield the desired data;

(c) Misunderstandings may result from the use of different figures from a single survey;

(d) The amount of data available can prove unwieldy if the data are not recombined in a range of indices.

Overall, however, women in particular, because of their need for new approaches to old concepts, have much to gain from the adoption of the building-block approach and the difficulties certainly are not insuperable.

C. Filters and the choice of respondent

The general issue of the choice of respondent was covered in chapter 2, 7 (b). There are cases, however, where the decision is made to divide up the questionnaire topics and to address some questions to women and others to men. This practice can obviously impart a bias where sterectypes are allowed to influence the choice of topics to be allocated to each sex. A common example is where questions on reproduction are addressed to women while those on llabour-force participation, income and migration are addressed to men. Where the decision is taken, perhaps because of resource constraints, to split topics between the sexes, care should be taken to ensure that the allocation is not biased and that the economic questions in particular are evenly divided. Care should also be taken to ensure that filters do not exclude women who should answer subsequent questions.

It is commonly assumed that reproductive data should be gathered from women and economic data from men. These assumptions, however, need to be re-examined. Depending upon the local culture, it may be that men are more willing to report dead children and stillbirths than women and they may have more education and hence exact knowledge of the dates of birth of children, for example. The argument for collecting economic data from men is that women are said not to know about the economic transactions involved. In some cases this is certainly true, although the likelihood of the respondent sharing information with the unknown interviewer that he is unwilling to share with his wife is questionable. In other cases, however, husbands and wives maintain separate economic interests within the household and it is necessary to interview both partners in order, for example, to pick up the fact that the wife has an outstanding debt for the children's clothing that the husband is unaware of. In those cases where spouses do not share economic information, this fact is in itself significant and should be recorded as an indication of their status. One question that it would be well worth posing to those female heads who took up that position as a result of the death or other departure of a male would be how much they knew about the household at the time of the departure.

D. The interviewers' manual, training and supervision of field work

Another point at which bias may enter into the proceedings is through the interviewers' manual, which is used as a reference tool to expand upon the meaning of the questions in the questionnaire itself. Such manuals are often unconsciously biased, especially on economic activity questions, because the examples they give are almost all of men rather than women.

In such circumstances it may even be consoling to realize that it is common to find that interviewers make relatively little use of their manuals, losing them, or simply finding them too difficult to carry around. It is therefore important to make the text of the manual as brief as is compatible with covering all the major matters that must be included. One general instruction should be on how to deal with cases where women do not appear to fit into the categories provided. In all difficult cases, including these, there should be an understanding that interviewers can write in comments explaining the situation and then seek clarification with their supervisors. It is to be hoped that the special attention given to the design of the questionnaire means that such cases will be rare, but they will still occur and it is important to ensure that people of either sex are not made to fit in where they do not belong. In the past, a major consequence of such misplacement has been the re-enforcement of stereotypes despite responses that indicated their falseness.

The selection and training of the trainers and field supervisors must stress the avoidance of gender bias.

E. Editing and coding

In setting out the pre-coded questionnaire one concern should be to ensure, insofar as possible, that the female respondents are not to be found squeezed up into one or two categories while the men are spread across a much wider range. An example would be occupational codings where women's occupations are shown in much less detail than men's. Other examples could be drawn from the educational codes used in areas where there is a high incidence of illiteracy, especially among women, yet the educational codes concentrate upon the secondary and tertiary levels. In such cases it would be worth considering the possible value of dividing up those with no regular schooling between the illiterate and those who have managed to acquire literacy outside the regular school system. Another option would be to divide up the illiterate by asking an additional question about knowledge of the <u>lingua franca</u> in those areas where those who only speak the local language may be cut off from broader contacts.

As part of this process of endeavouring to ensure that women are not relegated by the coding scheme to a large but residual "other" category, it is important to check during the pre-test and early on in the survey that women are not disproportionately represented among those coded as "no response" or "not applicable". If, for example, the pre-test reveals that a question on co-operative society membership scores nothing but negative or "not applicable" responses for women because local co-operatives restrict membership to landholders, the great majority of whom are men, then thought should be given to the utility of retaining the question and to the possibility of investigating other activities that are more open to female participation.

Editing should be a process free of sex bias, yet it can arise. The Australian census of 1971 automatically but incorrectly edited out the occupations of a number of women who were found in categories such as marine engineer where the programmer believed that no women were to be found. While it is reasonable to check up on cases that appear to be unlikely, care should be taken to ensure that stereotypes are not imposed upon the data at the editing stage.

This argues for proper training of personnel in data processing to ensure absence of gender bias and for the advisory committee role to encompass data processing and tabulation as well as the preparatory and questionnaire design stages.

IV. THE HOUSEHOLD

A. Definitional issues

Since the present report is concerned with the use of data from household surveys to collect statistics on the status of women it is important to understand how the definition of the household itself may influence the results from the start.

In developing countries, the housekeeping rather than the family concept of the household is generally favoured (United Nations [31]). Elements of the housekeeping definition are as follows:

(a) Household members should live together;

(b) They should eat together (out of one pot or sharing common cooking arrangements or a common kitchen depending upon the culture);

(c) They should share a collective budget;

Occasionally a further element is added:

(d) Household members should acknowledge the authority of a single head [32].

Where the household is simply composed of the members of the nuclear family: mother, father and their children, there are few problems. Difficulties arise where households depart from this model and often these difficulties are of direct importance for the measurement of the situation of women.

Some cases where difficulties in household definition especially affect women are discussed below.

1. Single-person households

One person who lives alone and who makes provision for her or his food and essentials of living constitute a single-person household. But what of an elderly woman who lives alone but is not economically independent? In Botswana a destitute elderly mother who built a hut near her married daughter's hut and was supported by gifts of food and the like from her daughter was still classified as constituting a single-person household if she, the mother, maintained that she was independent [33]. Conversely, a mother may live with her children but maintain her own independent budget. Since women live longer than men this definitional problem will most often affect elderly women. Since it is the respondent herself who makes the claim of independence, the interviewer, during the training, should be made aware of such cases and use probes to categorize the respondent properly.

Cultural factors may also mean that old men are more likely to be perceived as still in authority over the household than are widowed women who are seen as being more peripheral. Since the interest here is in collecting statistics on women, preference should generally be given to definitions that define individual women as separate households and do not merge them within data on a larger household. Certainly, where questions are only being asked about the characteristics of the household head, there is much benefit to be gained from defining as many women as possible as single-person households. Even when questions are being asked about all members of each household, it could generally be expected that better quality data would be gathered where women are enumerated as single-person households than where they are listed as one among many household members. To give an example, the minor weaving activities of an elderly grandmother are much more likely to be overlooked where she is recorded as one of a l2-person household than where she is individually interviewed. It is clearly important, however, that data should be collected on economic links of gift and exchange between such single-person households and family members in other households.

2. Polygyny

Where one man has several wives, are all the wives and their children to be counted as a single household or is each wife and her children to constitute a separate household? Some anomalous results can follow where the single household definition is adopted. For a start, there can be single households whose members live miles apart. In a 1967/68 household sample survey in the Sudan, husbands and wives (whether polygynously married or not) who lived separately and had independent means of income were still treated as members of one household if they lived within one sheik's domain, but as two or more households if they lived under different sheiks. There are many interviewing problems in a multi-round survey where household members do not normally share a common residence and all adult household members have to be interviewed.

Problems of potential double-counting and of over-complex schedules for one household are avoided when each polygynously married woman and her children, and any other persons who share a common cooking pot and residence with her, are treated as members of one household. A polygynous husband would normally be listed as a member of the household where he most often sleeps. If he insists that he spends an equal amount of time with each wife, then, following local cultural perceptions, he should be assigned to membership of the household of his senior wife. In any case, whether polygynously married or not, no one individual should ever be able to be listed as a member of more than one household.

3. Domestic servants

Since the great majority of live-in domestic servants are women, women have a particular interest in the criteria adopted for listing their household membership. Although in some families the food given to servants is of poorer quality than that consumed by the family itself, it is common for servants to live with their employers and to share a common cooking pot. Servants do not share a common budget with their employers, however, and therefore, in examing matters such as their living standards, it is not appropriate to include them in the same household as their employers.

In Thailand in a 1975/76 household sample survey, servants unrelated to the household head, living with the household and receiving food and housing as part of their wages but otherwise financially independent, were treated as separate households. If servants received other goods and services, such as free clothing and medical care, however, they were counted as household members. In contrast, the 1976/77 Household Income and Expenditure Survey of Réunion excluded live-in housemaids and grown-up children living at home from the main household if they kept their own budgets. Unfortunately, since such servants and children were not formed into single-person households of their own, they were excluded from any chance of appearing in the sample. Thus the housemaids effectively became invisible.

4. Boarders

Persons who live with others as boarders paying for their food and accommodation create classification problems similar to those that arise in the case of domestic servants. They, too, should be treated as separate households, though in some countries, boarders exceeding 10 in number are treated as living in collective living quarters. It is possible that boarders will be found to be a predominantly male category, but it is only possible to be sure of this where it is certain that the definitional rules have been consistently applied. Otherwise there is a risk that, owing to cultural assumptions, female boarders will be more likely to be classified as members of the larger household than are male boarders.

5. Families who do not share a common budget

Often there is an assumption that family members who share a common dwelling are members of a common household. There is, indeed, a common tendency to equate families and households without giving enough thought to the differences between the two concepts. This is especially the case where interviewers have not received training expressly on this point.

Family members who live together and eat together do not necessarily share a common budget. In developed countries young unmarried adult wage earners often continue to live with their parents, not sharing their wages with the household but paying a regular, though often token, sum for their board and lodging. In many African cultures husbands and wives maintain separate budgets, with clearly defined responsibilities as to which partner should provide food, clothes, school fees, and so on (Abu [34], Oppong [35]). In this situation there is no common income-pool shared by both spouses and one does not necessarily know the total income of the other. So separate are the two budgets that loans made between spouses are recorded in writing and if one should work for the other (say the husband as captain of the fishing boat owned by the wife) then the standard wage will be paid. In areas where such separate budgeting is common, household surveys measuring income and expenditure will need to take account of this fact. Unfortunately, when surveys are being designed such cultural differences are often ignored by survey planners, who accept survey models designed for very different conditions because either they have given insufficient thought to the local patterns or they are hesitant to question the prestigious model from elsewhere.

Were it not that the household is such a widely used and accepted concept, there would be much to be said for changing to the concept of the income unit in surveys and analysis. This would certainly make women more visible in the statistics. In practice it is simpler to stay with the concept of the household but to ensure that the definition is restricted to people living together under one roof, eating from one kitchen and sharing a common budget. The Integrated Rural Survey in Kenya in 1974/75 defined a household as a person or group of persons living together under one roof or several roofs within the same compound or homestead area and sharing a community life by their dependence on a common holding as a source of income and food that usually, but not necessarily, involved them in eating from a common pot. This somewhat unusual definition provides a good example of a criterion that is adapted to local cultural conditions. Being specific to a rural survey the definition, quite acceptably, would not be appropriate to an urban study.

The Sri Lankan 1973 Sample Survey of Consumer Finances used two concepts: the household, defined as persons sharing a housing unit and having common cooking arrangements, and the spending unit, defined as a group of persons in the same household who share major items of expenditure, including food expenditure. Servants and boarders were thus defined as separate spending units. In practice this resulted in some confusion as boarders and servants found it difficult to attach a money value to their share of food consumption and this information might better have been collected, at least as a cross-check, from those who actually purchased or produced the food going into the common cooking pot.

6. Migration

Any definition of a household needs to be bounded by some kind of time frame: how long does a person have to stay in a household before being counted as a member and how long an absence is to be counted as a departure from the household? Take the case where the husband has gone to work in the city, leaving behind his wife and children to cultivate the small family holding. Some surveys have attempted to include absent males as household members on the grounds that they make a major financial input and/or continue to make decisions on crops sown and the like (Lipton [36]). Thus, the Botswana Rural Income Distribution Survey 1974/75 defined a household as a group of persons living together and sharing all or nearly all of the income generated by various members of the household and eating their meals together. Yet an unmarried man with a steady job away from the household, who was the father of children in the family and spent time and money on them, was treated as a member of the family and his income was credited to the household. If a woman had more than one boyfriend, then the presents received were treated as transfers. The basic rule was that in order to include him in the household, he should visit at least once a month and spend a substantial part of his wages on the family. There are clearly problems in regarding a man who spends up to 350 days a year in town as a wage earner as a member of a rural farming household. Such a definition is also highly likely to give a false impression of the lack of autonomy of the women in the rural household. The case of international migration where the husband lives and works in another country, possibly overseas, presents the extreme case of the unworkability of a household definition that persists in assigning husbands and wives to the same household unless the marriage is broken by divorce or separation consequent upon marital disagreement.

Indian studies have highlighted just how complex the relationship may be between the wife and children staying in the rural area and the husband who has moved to the town. In some cases the husband remits a portion of his wages, not to his wife but to his father who may spend the money on debt repayment or marriages for his other sons (Singh [37]). Wives may simply be deserted (Saxena, 1977). Wives may carry out all of the agricultural labour on the family holding only to find that their husbands return at harvest to sell the crops, thus maintaining their control over the agricultural income (Charavorty [38]). Treating the rural mother-and-children units as households and thus excluding the nonresident fathers serves to point up these situations as such transactions then appear as payments by one household to another. Similarly, women who migrate by themselves to the towns have often been largely ignored in migration studies. Recording boarders and domestic servants as separate households would help to make many of these women and their concerns visible.

7. General criteria

Having looked at the issues related to particular groups it is possible to outline a general strategy for the definition of the household so as to maximize the amount of useful data collected on the situation of women without sacrificing data on men. In creating definitions it is important not to build into them stereotyped assumptions that will inevitably reappear in the data collected. To give an example, if husbands are always defined as household members in intact marriages, irrespective of where they live, then the data will give a misleading impression of day-to-day household interaction.

The general criteria that should be adopted are as follows:

(a) Use a minimal household definition. Wherever, in using the household definition in particular instances, it is necessary to make choices between inclusion or exclusion and the creation of a new household, exclusion should be preferred. If a unit that might be regarded as a single household has to be split because it does not meet all of the criteria, such as co-residence, then all transfers between the two sub-units will have to be recorded in income and expenditure surveys (Scott <u>et al</u>. [28]). Thus, for example, not only wages sent home but also food sent to the absent family member will have to be recorded;

(b) Co-residence is essential. Apart from any other consideration, information on absent family members is likely to be less reliable than information on those present (unrelated individuals are unlikely to be reported as household members unless their absence is very temporary). Inclusion of absent persons is also likely to result in a grave risk of double-counting or under-counting;

(c) A common core budget is essential. The fact that individuals keep back some money from the common pool for savings or personal expenses does not preclude them from being household members. Take the case of a sister and brother who continue to live together after the death of their parents. If they share expenses, especially having a common budget for food, then they form one household. If each makes their own arrangements, then they form two households. The importance of food and the common kitchen or common cooking pot concept in this context is that in developing countries food commonly represents between 70 and 75 per cent of total household expenditure (Deaton [39]). There are rare instances where people live together and share a common food budget but still might not be considered to comprise a household. An example would be a group of women factory workers who all sleep in one house giving the same sum of money to an unemployed fellow resident who buys and cooks food for the whole group. It is possible to share a common budget without being co-resident. An example would be a daughter who works in the city and sends home money to her mother in the village who has no other source of income. In that case there are two households linked by remittances;

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(d) There must be a time frame for the household definition. Take the case of the wife who takes the children home to visit her parents. Originally the visit is just to be for a month, then one month becomes two months and two months three; at what point does she become a member of her parents' household again or become an independent household (depending on the budgetary arrangements)? The time limit chosen may depend upon local conditions, but there must be a time limit and it must be consistently applied. In most cases, a two-month limit for temporary visits could well be appropriate. There are some cases where people regularly move back and forth between residences, say, working in town during the week and returning to the village at weekends. In such cases their residence is wherever they spend the majority of the time. Thus, for example, in the Malaysian Household Expenditure Survey of 1973 persons who stayed with the household for more than 15 days during the month were included as members.

With the consistent use of the minimal household definition discussed above, many categories of women that are often ignored will become visible again. Examples will be domestic servants, boarders, women who migrate alone, women raising children alone, elderly widows who live alone or who live with their relatives but do not share a common budget. From a general viewpoint it should be noted that having taken the household as a minimal unit it is usually possible to re-combine units at the analysis stage, whereas dividing them at this point is usually impossible because of segments of data that are lacking.

It is also likely that keeping household units small will increase the quality of the data collected for each household. Certainly, in areas such as the African Sahel where broader household definitions can result in households encompassing whole hamlets of some hundred persons the data obtained will be poor unless the unit can be broken down further (Scott [28]). Obviously smaller households can result in an increase in the number of interviews (depending upon the definition of the sample unit). Where information is required on each household member in any case, however, the overall interviewing time should not be greatly increased.

Some people may be concerned at the use of a household definition that has co-residence and time limit criteria that cut off spouses (usually husbands) from membership of the household of the remainder of the family even when the marriage is socially intact. To refuse to do this, however, is to give a misleading picture of the stability and physical unity of households. There is a tendency to regard households as entities that endure over an indefinite period. This is certainly not true of many towns. Surveys in Abidjan in the 1970s showed that some 40 per cent of all individuals change their address in a year. In a two-round survey of Yaoundé in 1964/65, only 68 per cent of the households could be identified for re-interview after a five-month interval. Rural instability is less but not insignificant. In the rural survey in Lesotho in 1967/68, 30 per cent of the households could not be maintained in the sample over the year of the inquiry (figures on household instability from Scott [28]). This instability of households is of particular significance to the situation of women because it runs counter to the common assumption that women's home lives are spent in stable domestic units.

If the standard household envisaged by survey designers comprises a father, a mother, their children and possibly an additional relative living with them, then the proportion of standard households will clearly vary greatly

from area to area. It is important, however, that the definition of the household should not be biased so as to artificially create standard households, for example, by including the father whether he is living there or not. For policy and planning purposes it is necessary to know who is actually living in the rural areas and making the day-to-day decisions. Information on remittances from family workers away working in the cities should figure as a transfer between households rather than as a matter interior to an artificial household unit spanning hundreds of kilometres. Thus, for most practical purposes it is the <u>de facto</u> rather than the <u>de jure</u> situation that is of significance and that should be measured.

Illustrative questionnaire materials on household composition are given in example 1 below.

Example 1. Illustrative questionnaire materials on household composition

A. Questions

- Could you please help me to make a list of everyone who lives here and eats with you. Could we start with the oldest man who lives here? (Interviewer to proceed to listing the first names and details on the household chart.)
- Are there any of these people who do not usually live here? If yes: How long have they been staying here? (If less than two months exclude, if two months or more include as household members.)
- 3. Is there anyone who usually lives here who did not sleep here last night? <u>If yes</u>: How long have they been away? (If less than two months include in the household; if two or more months mark time away in absent member column and fill in absent member sheet.)

B. Household chart (see p. 51)

C. Absent-member sheet

(One sheet to be filled in for each person regarded as a member of the household who has been absent for two months or more)

- 1. Person number from household chart
- 2. Where does he/she live?
- 3. Is this (read):
 - 1. A city.
 - 2. A town.
 - 3. A village.
 - 4. In the bush.
 - 5. Other, specify?

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Example 1 (continued)

B. Household chart

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Person No.	Name	Relationship to reference person (Give No.)	Sex	Age	Marital status	For children under 20, whether in education	Worker status (from economic activity chart)	Absent member status
1. 2. 3. 4. 5. 6.		- (#)			-			n. De
1.		 Spouse Son Daughter Mother Father Other relative, same generatio Other relative, older generatio Other relative, older generatio Other relative, older generatio Non- 	n n		 Never married Currently married Widowed Divorced Separated 	 Full-time Part-time Not in education 		 Present (a) Regular (b) Circular (c) Mover Away under two months Away two months plus remittance sender Away two months plus no remittances Away two months plus no remittance remittance remittance remittance remittance receiver

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Example 1 (continued)

4. a/ How far is this from here?

- 1. Less than 5 km.
- 2. 5-9 km.
- 3. 10-49 km.
- 4. 50-99 km.
- 5. 100-199 km.
- 6. 200 km or more.
- 5. <u>a</u>/ How long does it take to get there? (By the means of the transport they use.)
 - 1. Less than an hour.
 - 2. 1-4 hours (less than half a day). b/
 - 3. 5-9 hours.
 - 4. 10-23 hours.
 - 5. 24 hours or more.
- 6. Why did they go there?
 - 1. For education.
 - 2. For military service.
 - 3. For medical treatment.
 - 4. To look for work.
 - 5. To a job that was waiting for them.
 - 6. To help relatives.
 - 7. To escape marital or other problems at home.
 - 8. Other, specify
- 7. Does this person send back any money or goods to the household? <u>If yes</u>: Roughly how much would this amount to in a year? c/
 - No, nothing sent back.
 Yes, just small amounts, less than one week's wages.
 - 3. Yes, 1-4 weeks' wages.
 - 4. Yes, 5-8 weeks' wages.
 - 5. Yes, 9-12 weeks' wages.
 - 6. Yes, 13-26 weeks' wages.
 - 7. Yes, 27-51 weeks' wages.
 - 8. Yes, sends back everything (less living expenses).
 - 9. Yes, other, specify

8. What are the money or goods sent back for?

- 1. Just small gifts.
- 2. As support for the household as a whole.
- 3. As support for a particular person: female.
- 4. As support for a particular person: male.
- 5. To pay educational expenses of child(ren).
- 6. Other, specify

Example 1 (continued)

9. Does this household send money or goods to this person?

No nothing sent.
 Yes, just small amounts.
 Yes, this household pays for their board.
 Yes, this household pays for their education and board.
 Yes, this household pays for education.
 Yes, household pays rent to this person.
 Yes, other, specify

a/ Questions 4 and 5 should be seen as alternatives.

 \underline{b} / In populations where respondents are not used to thinking in hours but rather in terms of half a day or the like, a scale should be established so that all interviewers are using the same conversion method.

c/ While the ideal might be to have data on the actual sums of money sent back, respondents are unlikely to be willing and able to give this information unless one single sum is sent. One choice is to record the amount in terms of the wages the person is earning; any choice would need to be carefully field tested.

B. Identification of the head of household

One central area of concern in the analysis of the situation of women relates to the apparent poverty of female-headed households. It is therefore vital that such households can be readily and consistently identified from household survey data. A United Nations review in 1973 of population censuses showed that there were essentially three different types of headship definition:

(a) Self-definition, that is, classifying as the head of the household the person who nominates himself or herself as the head, or who is designated by other household members;

(b) Identification of the person in authority, that is, the person who controls the maintenance of the household and exercises the authority to run the household;

(c) Identification of the economic supporter of the household, that is, the chief earner or the main supporter of the household's economy.

It was also shown that more countries reported data on household heads than provided definitions of the head of the household (United Nations [40] United States Bureau of the Census [41]).

All three of the common definitions outlined above are subject to considerable ambiguity both because of the possibility of having a house-

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hold head who is not a resident member of the household and because it is not clear under what circumstances a woman would be classified as the household head. Thus, for the purposes of household surveys, a specific rule should be laid down to avoid all ambiguity.

A good rule would be to define the household head as the oldest adult male resident in the household. Where there is no adult male living in the household then the oldest adult female is classified as the household head. (Adulthood will need to be defined by reference to local standards but persons aged 16 and above would be an appropriate cut-off point.) It follows automatically from this definition that a woman will not be defined as the household head where there is an adult male living in the household. In many ways the term "household head" may not be the ideal term to use for this individual. "Household reference person" would be more appropriate. However, "household head" is so widely used that in most countries it would almost certainly be unrealistic to attempt to displace it by an artificially created alternative.

Illustrative questions on household organization are shown in example 2. In order to separate the different elements frequently assumed to be included in the term "household head" two further terms need to be defined. Each household should be asked who is the "boss" and the person nominated should be classified as the "household boss". In many cultures this person will in fact be the oldest male present but this is not necessarily the case. Indeed, this person does not have to be a resident member of the household. For example, a polygynous husband could be the boss of several households but resident only in one. Equally, a husband who has migrated to the city, leaving his family behind in the village but coming home at regular intervals to issue instructions on the cultivation of the household's land could also qualify as the boss. Conversely, in cases where the husband is present but not in command owing to personal choice, illness, alcoholism or the like, the wife can qualify as the boss provided that she is so nominated by the members of the household. In English, the term "boss" has the advantage of being sex neutral, unlike the terms "master" or "mistress", which automatically specify the sex of the person to be nominated. In translating the question as to the boss, it is important to maintain this sex neutrality.

Example 2. Illustrative questions on household organization

2. Relationship of boss to household head:

1. Same person.

2. Father.

- 3. Polygynous husband.
- 4. Monogamous husband.
- 5. Wife.
- 6. Mother.
- 7. Other, specify

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Example 2 (continued)

4. Relationship of chief economic provider to household head:

- 1. Same person.
- 2. Father.
- 3. Polygynous husband.
- 4. Monogamous husband.
- 5. Wife.
- 6. Mother.
- 7. Other, specify
- When you need to buy a new piece of clothing, how do you get the money? a/
 - 1. Has own money.
 - Asks household head for money from the common store for the household.
 - 3. Asks household head for money from his/her store.
 - 4. Hasn't had any new clothes in the past year.
 - 5. Other, specify.

 \underline{a} / This question is aimed at finding out whether there is a common store of money or whether it is regarded as belonging to the household head, but the indirect approach seems more likely to get the information.

In order to clarify the concept of a boss, interviewers should be instructed on what to say if the respondents ask what it means. Possible clarification would be the following: "The boss is the person who makes the important decisions on matters such as buying or selling land". In some cases there may not be a single, authoritarian decision maker and the coding should allow for joint decision-making. Also, in some contexts there may be an official definition of who is legally responsible for the household as a whole. Thus, for example, in parts of Indonesia the household boss is responsible for certain village duties such as taking a turn at keeping watch at night. Elsewhere, the person in whose name the house or land is owned is defined as having the legal responsibility for matters such as the misdeeds of individual household members. It depends upon the culture as to whether women are considered to be capable of holding these positions or whether, in the absence of an adult male household member, some male such as a brother-in-law from outside the household is held to be in charge.

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As noted above, the determination of who the boss of the household is may The be either a matter of household agreement or a legally designated role. determination of who the principal economic supporter of the household is should be a matter of fact, which in most cases rests on evidence that is relatively easy to determine. The standard question would be along the lines of the following: "Who is the person who does most to provide for the economic needs of the household?" In a household where the income is almost entirely in cash this will be the person with the highest wages or the most rewarding form of self-employment. In a household where the family farm or business is the major source of income or goods the matter may be more complex. Again, it may be the case that the chief provider is not a co-resident member of the household; he or she may be living in the town and remitting cash home to the rural household. Thus it can happen that a female-headed household defined by the residence criterion set out above may still have a male economic supporter. For example, a widowed mother, her divorced daughter and the grandchildren may be the only residents of a household supported by the remittances of a younger son working and living at a distance in a mining town.

Once it has been established who the household head, the household boss and the chief economic provider is, then there are a number of composite indices that need to be established in order to facilitate the general analysis. For example, the household headship code might be along the lines given in example 3 below.

Example 3. Illustrative household headship code

1.	Single-person household:	woman of retirement age (60+)
2.	Single-person household:	woman under retirement age
3.	Female-headed household:	woman plus dependent children (under age 16)
4.	Female-headed household:	woman plus dependent children and female adults
5.	All other female-headed h	ouseholds
6.	Single-person household:	man of retirement age (60+)
7.	Single-person household:	man under retirement age
8.	Male-headed household:	man plus de pendent children (under age 16) – no adult females
9.	Male-headed household:	man plus spouse only
LO.	Male-headed household:	man plus spouse plus dependent children
L1.	All other male-headed hou	seholds

It should be noted that by the definition here it is not possible to have a female-headed household with adult males present.

The purpose of the illustrative household headship code shown in example 3 is to facilitate the comparison of like with like, for example to be able to compare old women living alone with old men living alone. It may well be that

after the pre-test a somewhat different form of coding is found to be more appropriate, especially in contexts where three-generation households are common. Other useful composite numerical codes could be used for the number of (a) generations in the household; (b) male and female adults in the household; and (c) dependent children in the household.

C. Challenges to the use of the concept of the head of household

The concept of the head of household is currently under attack from two different vantage points (see, for example, United Nations [1], paras. 294-295). On one side are those who argue that households do not need to have heads and that in a marriage of equal partners it makes no sense to insist upon naming either the husband or the wife as the head of the household. On the other side are those who generally accept the idea that households need to have a designated leader but who are concerned that many definitions appear to exclude women from this role.

Those who oppose the use of the term "household head" as being incompatible with marriage as a partnership between equals mostly come from the developed countries. They argue that for census and survey purposes it is sufficient to use the term "household reference person". Where there is a need to identify households where women are the chief economic providers for their children, then special tabulations are run of single-parent households where the parent is female, which is the case in more than 90 per cent of all single-parent households.

In developing countries, the situation is much more complex both because of cultural factors and because of the restricted availability of data and of facilities for the mechanical reclassification of data. It is common for certain data such as income to be compiled for households rather than individuals and hence it is important to know who is considered to represent the household. The passage from the Nairobi Forward-looking Strategies for the Advancement of Women referred to above (United Nations [1], para. 295) argues that the term "head of household" should be eliminated. It does not address the question, however, as to how the replacement of one term by another will ensure equality of access to resources to women. Given that the primary interest is in women who are the chief economic providers for themselves and their children, the choice might be to identify the chief economic provider in each household, but by itself this would not affect the cultural perception that men are major providers and that women, if they are seen as playing an economic role at all, are seen as markedly less important.

The present report argues for retaining the term "household head", laying down firm rules to determine which household member should be given the title (that is, the oldest adult male, or in the absence of any adult male the oldest female). The reasons for this retention are linked to the difficulties of discarding a term that is in common usage. Indeed, given the currency of the term, reform is a preferable option to abandonment. With a set definition of the household head it will be possible to determine immediately the households where women bear the sole economic responsibility. Additional questions would in any case be necessary to investigate women's contributions to the economies of those households where adult men are present.

V. EDUCATION AND TRAINING

Even though good quality data on education may be available from other sources it is vital that household surveys should also incorporate questions on education. First, educational data on matters such as school enrolment and attendance that are gathered by the educational system itself are sometimes not available separately for males and females. Secondly, education received is one of the most clear-cut and readily measurable factors influencing differentials in behaviour. Thirdly, and this is an aspect that is often neglected, education is a vital resource that pertains to the individual rather than to the household. Ownership of land or other possessions may be unclear or may change but education remains an individual possession that can not be alienated. Thus, education provides one of the clearest measures of the status of woman in situations where, as a wife who engages in no economic activity beyond the confines of the home or the family farm or business, it is otherwise difficult to attribute to her a status independent from that of her husband or of the household as a whole. If a wife is widowed, divorced or deserted (unless the household is a wealthy one and the inheritance comes to the wife), her chief resource is likely to be her education and the potential that gives her for independent economic activity.

Practically, information on education and training is simple to collect and usually reliable: at the margin the costs of its collection are very low. For policy and planning purposes data should be collected both on the education of adults and on the education that children are currently receiving. One of the best indicators of the future status of a country's women is the education that girls are receiving today.

In most societies females are likely to receive less formal education than males. The household survey should take this fact into account and endeavour to ensure that undue attention is not devoted to the rare and predominantly male instances of third-level education to the detriment of a fully adequate depiction of variations in educational experience at the lower levels. Thus, for example, to get a full picture of the situation of women it is important to ask about literacy as well as schooling. While the attainment of literacy outside of the school system is probably more common among males than among females, it is more common for females to have attended school intermittently, due to their domestic responsibilities, and thus to have failed to attain literacy. There is also some evidence that females are more likely than males to lose the ability to read owing to a lack of opportunities to practice their skill. Depending upon the local context, it may be advisable to ask additional questions about languages spoken and literacy in more than one language. In situations where there is a local language spoken by a limited number of people and then a lingua franca that has a much wider currency, it is often the case that men are more likely than women to speak and read the lingua franca. Men thus have access to the information that comes in from the wider world and that deals not only with national and world-wide affairs but also with many of the technical aspects of daily life (Ware [42]).

A basic list of questions on education covers literacy, current attendance, highest level attained, age at ceasing education and training outside the formal education system. Illustrative questions (example 4) on education and training are given at the end of the present chapter.

A. Numeracy

It tends to be taken for granted that questions should be asked about literacy but not about numeracy, yet simple numeracy is much easier to test in the informal interview situation than basic literacy. In Western countries there is a general belief that women have more difficulty with basic arithmetic than men, but this belief is not necessarily shared in developing countries where, in at least some cultures, women are considered to be superior in handling money calculations. Owing to the importance of numerical skills for day-to-day economic survival it is worthwhile to try out a few questions on numeracy in the pre-test, one of which should mirror the standard literacy question by asking whether the individual can do simple money calculations (e.g. those arising naturally in contexts such as the need to subtract dates to calculate ages, or the need to convert a weekly wage to a monthly rate). Another would check on actual performance (e.g. by asking for a calculation converting weekly income to an annual figure, or a simple question on interest rates that would also reveal whether people understand how much interest they actually pay).

B. Children's schooling

In designing the survey it is necessary to designate an age cut-off at which children are deemed to become adults. The fifteenth birthday is one that is conventionally used and has the advantage of mathematical neatness. While it is important to take local conditions into account when choosing the age, any one age will inevitably be arbitrary and not suited to all cases. Once the age is chosen, then for all those under that age questions will need to be asked on current school attendance, reasons for non-attendance and the age at which attendance ceased if the child ever attended school.

It is also useful to consider the possibility of asking a question on the regularity of school attendance since it is often suggested that girls are more likely than boys to have a repeatedly interrupted experience of school attendance due to being kept at home to substitute for their mothers in performing household chores or in looking after younger children in the family. Girls may also be kept at home because of cultural constraints upon their attendance when menstruating or unwell, or they may be withdrawn from school altogether upon reaching menarche to protect them from any risk of sexual experience prior to marriage. Given the likelihood that a direct question on how regularly children attend school will be met with a polite assurance of constant attendance, a direct question on yesterday's activities should prove to be more rewarding.

Although, as has already been suggested, attitudinal questions should generally be avoided, asking parents why their children are not in school is worthwhile. The answers to this question can be very useful in revealing differences in attitudes towards girls and boys without the need to address this issue directly with the attendant risk of rationalization in the parents' responses. At a more immediate level, the responses can be very useful in the design of programmes to increase the level of school attendance.

While these questions will be restricted to children within the sample, for older persons the questions on economic activity will be so framed as to allow the emergence of the occupational category of full-time student. Local conditions will determine whether it is worthwhile to ask about the possible

part-time educational activities of older respondents. Conversely, questions on the possible economic activities of those defined as being children will also depend on local conditions although questions as to why children are not in school may also reveal some information in this area. The problem is one of lack of time. As discussed below, questions on economic activities outside the formal sector, as children's activities are most likely to be, take up a considerable amount of time if they are to be adequate in their coverage. One compromise solution might be to ask for all children aged 10 and above, "How many hours per week does she/he spend in housework such as wood-collection, water-fetching or childminding?" and "How many hours per week does she/he spend helping with the farm/family business?". If the interviewers are trained in probing so as to be able to translate vague responses into approximate measures of hours per week for each significant type of activity, then even a rough indication can be of considerable use. Thus, for example, if the sons are recorded as contributing no hours and the daughters as applying 20 hours to housework and 20 hours to helping their mother in her dressmaking, then clearly the sons should have far more energy to devote to their studies.

C. Highest level of education attained

It is important to have information on the highest level of education attained both as an indication of the knowledge that the person is likely to have and as an indicator of the employment opportunities likely to be open to them. For many employment positions a certificate rather than a fixed number of years of education is the requirement. Equally, possession of a certificate should be an indication that certain skills or some knowledge was once demonstrated.

Indonesian experience suggests that there may be some confusion between having some primary school and having completed primary school (Hull and Sunaryo [43]). The 1976 Intercensal Survey's reliability check showed that 10 per cent of the educational responses were miscoded, partly because officials with only partial primary education were ashamed to admit this and interviewers were reluctant to probe in this delicate area, and partly because the interviewers were unsure how to code unusual cases. There is also some evidence in this Indonesian study that husbands underestimate the level of education of their wives. Thus, it is useful to use the pre-test to examine possible sex differentials in educational reporting both by men and women responding on their own behalf and when acting as proxy respondents for others.

Many surveys have asked about the number of years of schooling rather than the highest level attained. There are considerable problems in interpreting this measure, however, where educational systems have varied over time or across regions or where repeating grades and/or the pursuit of school-work by correspondence are common. For Nigeria, it has been shown that the level attained correlates much more clearly with other variables, such as income and occupational level, than does a measure of total years of schooling (Fletcher and Fletcher [44], p. 110). If it is true that girls are less able to attend school regularly than are boys, levels attained will be a more revealing measure than years of schooling.

If a measure of years is required (say for an ordinal scaling technique), it is preferable to ask about age at leaving school and ceasing regular education. Experience in using this measure with a broad age range of immigrant women in Australia who had received their educations in all five continents showed that it was a robust indicator for use in situations where respondents vary widely in background and age and there have been numerous changes in the education system itself (Caldwell and Ware [45]). There are other advantages to using a direct age measure that fits in very well with most demographic or life-cycle approaches. Simple subtraction will readily show, for example, the time interval between leaving school and marriage or the birth of the first child. Studies in developed countries, and especially in the United States of America, suggest that a very short interval gravely restricts a woman's opportunities later in life. In developing countries, little is known of the fate of girls who have to leave school because they are pregnant (De Vallenga [46]). Information on the subsequent lives or careers of girls who are withdrawn from school at puberty or who are allowed to remain could be revealing.

D. The quality of education

Ideally, it would be possible to have measures of sex differentials in both the quantity and the quality of education. The household survey format, however, is not well adapted to measurement of the quality of education and a direct study of the educational system may prove to be more rewarding. Still, there are a number of points that can be examined in surveys. In the Philippines questionnaire studies have shown that parents spend nearly twice as much on the education of boys as they do on the education of girls (Navera [47]). A simple measure of the fees paid out for boys and girls provides an immediate indicator of the value that parents believe that they are getting. The degree to which girls rather than boys are kept home is also an indication of the value that parents feel that girls derive from their education (Machado Neto quoted in Buvinic [48], p. 265).

Another aspect of the quality of education relates to the actual content of what is taught. For a number of reasons it would be useful to know how far girls are included in the more scientific and technical side of education. At the school level this may be difficult to examine without visiting the schools themselves. If there are special technical schools, however, it may be worth recording which children in the sample are attending these schools.

E. Post-school education and training

It has already been suggested that educational questions should focus on the lower levels of education where the majority of the population will be found rather than on the rare instances of third-level education. It is, however, important to know about people's occupational qualifications. Thus, for example, in occupations where it is possible to be either qualified or unqualified or with or without a certificate, questions should pick up which category the respondents belong in, especially given the likelihood that the preponderance of women will be found in the less qualified and less well remunerated category (see example 4). Thus, interviewers should be trained to probe for qualifications in connection with occupational data and there should be a separate category for recording whether tradespeople have been through apprenticeships, nurses have certificates and so on. Indeed it would be useful to have a question that asks everyone whether they have had any specific training for their work, for even peasant farmers may have had some training in farming.

A number of writers who have examined the need for further data on women have argued for better data on adult education and other forms of training (United Nations [4]). Once again the point may need to be stressed that scarce interviewing time should not be devoted to asking questions that are relevant only to a small proportion of the population. In countries that have had mass adult literacy campaigns it will certainly be worthwhile to ask at least one question on participation to show how far women have benefited equally with men. In other contexts it will be wise to find out just how widespread adult education programmes are before inserting questions on the topic. One problem with embarking upon questioning in this area is that it would be necessary, given the diversity of programmes, to have a series of questions to establish such matters as the duration, nature and intensity of participation before being able to evaluate their possible impact. Where separate programmes are provided for men and women the choice has to be made between asking a simple question on literacy, if that was the goal, or leaving the comparison to a more in-depth study.

Given the need for restraint in the total number of questions, a single question pair addressed to all adults might be the realistic maximum to be included. This would ask about any educational or training experience during the past year and its objective: literacy, improved farming techniques, handicraft production, credit management and so on.

Example 4. Illustrative questions on education and training

A. For adults (that is, 15 or older)

- 1. What is the highest level of education you have attained?
 - 1. No regular schooling.
 - 2. Education outside the regular school system.
 - 3. Some primary schooling (not completed).
 - 4. Completed primary.
 - 5. Some secondary (not completed).
 - 6. Completed secondary.
 - 7. Vocational/technical post-secondary (Specify).
 - 8. Some/completed university.
 - 9. Other: (Specify).

For all those adults who have not completed secondary education:

- 2. (a) Can you read (say a newspaper or a short letter)?
 - 1. Yes.
 - 2. With difficulty.
 - 3. No.
 - (b) Can you do basic money calculations (e.g. 15 a week is how much a year)?
 - 1. Yes.
 - 2. With difficulty.
 - 3. No.

Example 4 (continued)

(c) (If appropriate consider inserting a question on second language use here.)

For all:

- How old were you when you completed your regular education/schooling? Write in age 01. No regular education; 02. Still in full-time education.
- 4. Have you received any education/training during the past year (such as agricultural training)? If YES: What was this?
 - 1. No training in past year.
 - 2. Literacy training.
 - 3. Improved farming techniques.
 - 4. Handicraft production.
 - 5. Accounting/money skills.
 - 6. Political training.
 - 7. Other: specify
- 5. Have you had any training for your work?
 - 1. None.
 - 2. Trained on the job/by family tradition.
 - 3. Formal apprenticeship.
 - 4. Short courses.
 - 5. Has a certificate (write in name)
 - 6. Other qualification: (specify)

B. For children (that is, aged under 15)

- Does X go to school? Yes/no. Was X at school yesterday (or on last school day)? Yes/no. If NO to either question: Why doesn't X attend school?
 - 1. Needed to help with farm work.
 - 2. Needed to help with family business.
 - 3. Needed to help mind children.
 - 4. Combination of reasons given above.
 - 5. Wages needed by family.
 - 6. Ill health.
 - 7. Girls don't need so much education.
 - 8. Too young.
 - 9. Too old.
 - 10. Lack of mental ability.
 - 11. Too expensive for fees/books etc.
 - 12. Other: specify

.

Example 4 (continued)

- 2. (a) How much do you pay in school fees (per year) for your oldest daughter <u>a</u>/ who is in school?
 - 1. No daughter.
 - 2. No daughter in school.
 - 3. Daughter in school but pays no fees.
 - 4. Pays ... (remaining codes according to likely local costs).
 - (b) How much do you pay in school fees (per year) for your oldest son who is in school? (codes as above)

 \underline{a} / The question on the daughter is deliberately placed first so as not to point to the contrast between the two sexes in a direction that might result in an over-estimation of the amount spent on daughters.

VI. ECONOMIC AND OTHER ACTIVITIES

A. Principal issues

The idea of a strict separation between work and the rest of life's activities is said to have developed during the industrialization of the West as the use of clocks and watches became widespread (Minge-Klevana [49]). Interest in the concept of the labour force developed in the United States during the depression, when there was much concern to measure unemployment. Naturally the concepts used were designed for, and best suited to, industrial economies where the majority of the population in the labour force is in stable wage employment and where almost all adults who are not in the labour force are students, "homemakers" or pensioners (Standing [50]).

Applying these concepts to developing countries with large subsistence sectors was bound to prove difficult. In the case of men it was relatively simple to assume that any adult male who was neither a student nor an invalid was in the labour force if only as an unpaid family worker. In the case of women the crucial issue revolved around being able to distinguish homemakers from members of the labour force. Women who work for wages or men who work on their own or their family's land were clearly in the labour force, but what of wives who did some work on the family land or in the family business? "The crucial point which arises and which appears to have been quietly ignored in the instructions issued in most censuses is whether the vast number of women who are periodically engaged in subsistence agriculture should be classified as economically active or not" (Blacker [51], p. 49). There has been much discussion on how many hours per week women must contribute to the family enterprise before they can be counted as members of the labour force (Cho [52]).

For four countries in Latin America, comparisons have been made between the results of population censuses and other, independent sources of information, showing the levels of male and female labour-force participation (Recchini de Lattes and Wainerman [53]). In each case the census found a lower rate of female participation than the household survey, or, in the case of Costa Rica, the Social Security Register. This was true even where the census definition of economic activity was markedly broader than the definition employed in the survey. In the case of the state of Sao Paulo, Brazil, even though the survey used a reference period of one week for the employed and two months for the unemployed, compared with a one-year reference period for the census, the censal under-enumeration in relation to the survey oscillated by age group between 14 per cent and 33 per cent among women and by between 2 per cent and 6 per cent among men. A more detailed categorization showed that the census is especially inadequate for women working in agricultural activities and for unpaid family workers, both female and, to a lesser extent, male. In Bolivia, even though the survey only asked one question on economic activity as compared to three questions in the census, the survey counted between 33 per cent and 48 per cent more active women than the census. Figures are very similar for the urban areas but grossly divergent for the rural population. One factor that may have influenced the census enumerators was that their interviewers' manual was illustrated by line drawings in which all characters representing types of economic activity were male with the only female figures illustrating the "homemaker" and "student" categories.
From these Latin American evaluations it is possible to make some suggestions as to the characteristics of a successful survey of female labour-force participation (Recchini de Lattes and Wainerman [53]). First, it is evident that training of interviewers is an important measure; the enumerators are being asked to carry out a complex procedure and common sense without detailed training is not enough. Secondly, the actual question asked is very important. A heading for a column in a household record form is inadequate. Disaster awaits a question bristling with a double negative as was used in Brazil, where individuals were asked, "If you do not work nor were looking for a job, what situation and occupation did you have?".

It is very important that the presentation of pre-coded response alternatives start with responses relating to economic activity and move on to responses related to economic inactivity only when the forms of economic activity have been exhausted. In Brazil, the first alternative offered each person was "household chores" so that women had to be quite persistent to register their economic activities. Interviewers should also be instructed to stop the reading of alternatives after the first answer chosen by the interviewee. If the economic activities are not ordered from the most active participation downwards towards economic inactivity or if the interviewee is given the possibility of replying after knowing all the alternatives, many active women will be classified as inactive. This may happen because of a cultural belief that the proper and suitable tasks for women are domestic duties, or because such duties carry greater prestige than many lowly forms of employment or simply because almost all women who are economically active are also responsible for household chores.

Among the Latin American cases studied, in many instances there was an actual contradiction between the instructions for the enumerators and the wording of the relevant questions. Examples given also frequently only served to reinforce the stereotype that women stay home while men go out to work, and to leave an implicit question in the enumerators' minds as to whether they were supposed to record female economic activities in the informal sector at all.

Another factor is the reference period. The longer the reference period the higher the level of female participation is likely to appear to be because women's work is most likely to be sporadic, seasonal and interrupted by a series of life-cycle changes such as marriage and childbirth. Although seasonality may largely be a feature of agricultural employment, life-cycle changes are equally or possibly more important in the urban context where it is more difficult to combine child rearing and labour-force participation.

A further complication relates to the instructions given on the minimum amount of time required during the reference period to constitute economic activity. Many Latin American countries use one proportion of time for unpaid family workers and another, shorter, period for paid employees. Understandably, this distinction gives rise to considerable confusion and even a reluctance to classify anyone as an unpaid family worker (part-time). If there is to be a cut-off point it should certainly be the same for paid and unpaid workers. The most useful practice, however, is to ask for a measure of time worked, such as hours during the preceding week, and then to leave further categorization until the analysis is underway. It should not be thought that these problems are restricted to the Latin American context, although they have been especially well studied for that continent. Data from the United States population censuses and Current Population Survey show that in the 1940s and 1950s the census consistently under-enumerated women in the agricultural labour force, especially young women. More recently, the Survey of Farm Women in the United States used a battery of 15 items to establish the level of the woman's contribution to the operation of the farm (National Opinion Research Center [54]).

In examining the problems of data collection in this area it is important not to be unduly pessimistic. An intensive examination of the adequacy of data on the economic activities of women in rural Java in Indonesia shows both the positive and the negative aspects of the existing data (Moir [55]). There are two major criticisms that are commonly made of data from large-scale surveys and that are particularly apposite with respect to data on labour-force participation. One is that the information provided is very limited and therefore presents an over-simplified and distorted picture of a complex reality. The other is that responses in an interview situation are often inaccurate. Thus, for example, data from villages in West Java showed that over four fifths of rural households had more than one source of income (Nuramanaf <u>et al</u>. [56]). Thus, the standard survey approach of only collecting data on primary activity or primary source of income can present a highly inaccurate view of the relative importance of different activities (White [57]).

Equally one village study showed that, in an interview, less than 2 per cent of women reported farm work as a primary occupation, and only 30 per cent named it as a secondary occupation although actual observation showed that at least 92 per cent took part in some harvesting activities (Stoler [58]). In this instance women thought of themselves as "helping my husband in the fields" and therefore failed to report themselves as agricultural workers. In Indonesia, the problem seems to have been that women did not understand why the information was needed and because they had not been told this did not appreciate that their regular though periodic agricultural inputs were of interest to the interviewers. Even a brief introduction along the lines of, "We are interested in all the different kinds of work which people do" can raise the quality of the data collected. In Indonesia, two major improvements to the collection of data on economic activity have come through the additional collection of information on secondary activity during the previous week, and on primary and secondary activities during the previous year and through the inclusion in the economically active population of anyone (aged 10 or above) who worked at least one hour in the previous week (backed up by a question on actual hours worked).

An example of how women's economic activities may be overlooked comes from a study of a Muslim area of Nigeria where women never leave their houses in daylight (Simmons [30]). Women's economic activities in this society were originally revealed because a consumption survey showed that cash expenditures for ready-to-eat food constituted an important component of rural household spending patterns and that it was the village women who were both manufacturing these food items on a specialized basis and selling them to the village at large. Three separate questionnaires were tested in the field before it was possible to get detailed cost and receipts data that took account of complexities stemming from home consumption, gifts and credit sales. Despite the fact that many of the women were operating highly successful commercial enterprises, accounting concepts were only vaguely understood and women were genuinely unable to answer income questions.

In this social context there were four acceptable occupations for married women: food processing, crafts, trading and the practice of traditional medicine. Specialized surveys showed that some 85 per cent of women were engaged in at least one commercialized food-processing activity. This was in villages where a conventional census asking the male heads of households about women's occupations recorded the women as not being economically active. Even in the specialized survey women were reluctant to reveal that they traded in medicines. In the case of small livestock production, which was a source of income for many women, this was regarded as a sound banking procedure and thus was not recorded as an economic activity.

This Nigerian study serves to re-inforce three lessons:

(a) That women's economic activities are not necessarily visible;

(b) That perceptions found locally may not match what investigators have envisaged;

(c) That people running successful commercial enterprises may not be able to count to 100, much less keep accounts.

It should also be noted that this particular economy, where so-called housewives specialized in cooked food production and commercial exchanges between households, provides a perfect example of the arbitrary nature of definitions of economic activities. If the women had only cooked for their own households and not sold their product then exactly the same work would not have been counted as economic activity. Economists have conventionally referred to hypothetical societies in which everyone takes in their neighbours' washing for cash. This is an actual case where 85 per cent of women were both selling and buying cooked food.

B. The distinction between work and labour-force participation

Survey work becomes exceptionally difficult where the goal is to collect measurements of a phenomenon that ordinary persons in the street cannot be expected to define for themselves. When a woman is asked how many live births she has had, there may be a marginal difficulty in defining what constitutes a still or dead birth and therefore should be excluded, but in general the concept is quite clear and there is no need for further specification by the interviewer or refinement in processing. In contrast, it simply is not possible to ask someone whether they are a labour-force participant since in everyday speech the question is meaningless. In basic English the question would be: "Are you working?" The 1981 Indian census, for example, asked whether a person "Worked any time at all last year?" It is not clear how this question was translated into local languages, but in English it is difficult to envisage anyone replying negatively to this question.

The problem is that not all work involves labour-force participation. To give a simple example related to water carrying. Carrying 20 litres of water over 2 kilometres is certainly work in the sense of physical effort, but whether it qualifies as labour-force participation depends on the context in which the action is being performed. If the water carrier is being paid to carry water, perhaps as part of the duties of a domestic servant or as a contract or retail seller of water, then labour-force participation is clearly involved. If the water is being carried in order to provide drinking water for a flock of chickens, then labour-force participation is probably involved if the chickens are being reared for sale but is usually not considered if the chickens are for consumption within the family of the water carrier. (In one Fijian survey less than 10 chickens was made the dividing line between labourforce participation and non-participation (Blacker [51]).) If the water is being carried, most commonly by a woman or a child, for family use then this is not generally held to constitute labour-force participation. Thus, exactly the same activity may or may not constitute work for the purposes of labour-force participation, depending upon the context in which it is performed.

The distinction between work as physical or mental effort and work as labour-force participation essentially depends upon the economic context. Over the years the definition of participants in the labour force has become more complex. Thus:

1954: "Persons who perform some work for pay or profit";

- 1966: "All persons of either sex who furnish the supply of labour for the production of economic goods and services";
- 1982: "All persons of either sex who furnish the supply of labour for the production of economic goods and services as defined by the United Nations Systems of National Accounts and Balances." (ILO [59], [60])

The inclusion of subsistence production in the definition together with the shift away from the simple "pay or profit" wording has made the definition much more relevant to developing countries, but at the cost of making the information much harder to gather and categorize.

In theory, the United Nations System of National Accounts and Balances requires the inclusion of all primary production together with "the processing of primary commodities by the producers of these items in order to make such goods as butter, cheese, flour, wine, oil, cloth or furniture for their own use though they may not sell any of these manufactures" (United Nations [61], para. 6.19). Whether this processing of primary products within the household is included in economic activities in practice and thus draws the processors into the labour force is of major importance in determining the proportion of rural women who are classified as being in the labour force.

In looking at the measurement of female participation in the labour force in developing countries, the goal is not to produce a single indicator of participation/non-participation but to be able to establish a series of building blocks that can be used to construct a more complete picture of the situation. By using different combinations of these blocks of information it should be possible to maintain comparability with earlier series while experimenting with the effect of different extensions to the traditional definition. One question in the series of questions on labour-force participation, therefore, should always be the standard question used locally in the most recent census or labour-force survey. If this question is not included, then a valuable opportunity is lost to examine the weaknesses and strengths of the standard approach. It also becomes difficult or impossible to place the exploratory study itself in the broader regional or national context.

Block 1: The paid labour force

There should be no major problem in measuring the paid labour force, that is, those who receive wages or salaries. Most surveys already measure this category of workers quite accurately. Where the statistics show a deficit of women in the paid labour force this is usually an accurate reflection of reality. There are some groups of employees, however, among whom women are often in the majority, that may be overlooked. Domestic workers are one such category, especially where there is some confusion as to which household they belong to. Another group is composed of part-time workers, whose labour-force participation may be overlooked, especially where questions are being answered on their behalf by another member of the household.

In some surveys workers receiving wages in cash and kind are grouped together. To maintain the building-block approach and to allow for a variety of groupings of the classification it is important to restrict this category to persons who are in the cash economy and receive cash rewards. People who are paid both in cash and in benefits such as meals or lodgings should be included. Those who are paid only in kind, however, should be classified separately. Outworkers who are paid piece rates for goods that they make, finish or pack in their own homes are one category of workers that may easily be missed either because their homes do not visibly shelter any such economic activity or because there may be a reluctance to discuss work that is carried out under exploitative conditions, perhaps in breach of regulations.

It is useful to have some information on the employers of all wage and salary earners. A simple classification into five main categories of employer should be sufficient for most purposes. This would include (a) general government (whether at the national or the local level); (b) public enterprises; (c) large private enterprises (say of 100 or more employees); (d) medium-sized private enterprises (10-99 employees); and (e) small-scale enterprises (9 or fewer employees). The choice of cut-off points should be adapted to meet local conditions. The important matter is to be able to tell how far the employment of women tends to be confined to specific types of enterprise.

It would also be desirable to be able to classify the extent to which enterprises belong to the modern sector. To some extent size may be a proxy for degree of mechanization but, at best, the correspondence is only limited; some small enterprises may still use sophisticated technology and modern management methods and some very large factories may rely upon traditional craft skills and near-feudal relationships between employees and management. There are clear reasons for wanting to know the level of representation of women among government employees. It might be thought that this information should be readily available from government records but this is frequently not the case and broader survey data can provide a much clearer picture of the role played by government employment for both sexes in general administration and in public enterr ises. Another interesting question for employees is how they found employment. This question cannot usefully be asked of anyone other than the employees themselves, but it can still be worthwhile to ask individuals how they came to hear of the position: through a family member, a friend, a public advertisement or what other route (preferably with a specification of the sex of the individual concerned).

Block 2: Self-employment and employment in family enterprises

This block covers employers, own-account workers, unpaid family workers and members of producer co-operatives. At the core of this category are the great mass of workers in the informal sector: the petty traders and members of a multitude of small businesses making and repairing goods in craft conditions. For unpaid family workers the criterion is that they must do work that contributes directly to the family enterprise. If that enterprise is a tailoring shop they must be involved in the business whether in cutting, sewing, pressing, selling or in collecting and delivering the materials. Equally with a food stall, the worker must be involved in acquiring, processing or selling the food or in cleaning up after the customers. Identifying the person who actually handles the cash in the transaction is not normally too difficult (and the questionnaire should directly inquire what access to cash each individual has). The problem lies in making certain of full but not excess coverage of family workers. Direct questioning as to which family members participate in the enterprise is advisable together with a follow-up question as to the approximate number of hours per week that they devote to the enterprise.

A form of self-employment in which family members, most often women, make domestic or related articles to be sold appears to be often under-reported for reasons of family pride or differences in perceptions. (In one observation, the interviewer was solemnly assured by a husband that his wife did no work while the wife sat throughout the interview making fishing nets, as she did 12 hours a day.)

In most instances, however, it is probable that there are real differences between women in the community and that it is reasonable to endeavour to count how many women are active participants in the labour force, or conversely, how many do not participate. To start with the rural areas, it is almost certainly profitable to distinguish among the landless, those who own land and those who have access to it as tenants or sharecroppers. In the landless families there is likely to be much less scope for women to be invisible participants in economic activity. If they go out to work for a wage as field workers, road menders or domestic servants, then this would normally be picked up by population censuses and labour-force surveys. Equally, own-account work in the form of making goods for sale at home or engaging in petty trading should be registered fairly accurately. Check questions will probably be needed to cover women who have difficulty in finding employment and therefore only work sporadically outside their homes at the height of the agricultural busy seasons and to cover women who "help out" in other people's homes in return for food and passed-on clothing in arrangements so informal that they may well not be perceived as employment.

Women in households with access to land are in a different position. They may work on the land at peak seasons without being regarded as agricultural workers, but in many cultures their contribution is more likely to pass unrecorded because they concentrate upon the processing of agricultural produce and this is not perceived as constituting economic activity. At the extreme there will also be some women in richer households who do not engage in economic activities and indeed oversee servants who perform the processing work. (It is worth noting that a man who does not labour himself but directs servants at their work will almost certainly be recorded as economically active while a woman in the same position will not be thus classified.) A good approach to collecting data on these circumstances would appear to be some form of check-list of likely activities.

In some cases attempts have been made to adjust for the under-reporting of female economic activity at the coding stage of a census or survey. An especially interesting example of this occurred in the processing of the 1975 population census of Turkey. Here coders were instructed that any female 12 years old or above in a village or hamlet listed as a housewife, but not listed as having a profession or job, was to be coded as active in the agricultural activities shown for other women in the area or shown for their household heads (Bisharat [62]). Thus all women over age 12 in agricultural areas were assumed to work in agriculture unless specifically stated to be in a "not economically active" category other than housewife or classified as having another job. All of these women were also coded as unpaid family workers. As a consequence of this coding procedure, fully 47 per cent of the agricultural work force was reported to be female and 92 per cent of these female agricultural workers were classified as unpaid family workers. Some idea of the impact of this coding instruction can be gained by comparing neighbouring areas of Turkey and the Syrian Arab Republic. On the Syrian side of the border only 2 per cent of adult females were counted as economically active in the 1970 census, yet on the Turkish side of the border, where cultural conditions are very similar, the 1975 census showed the female participation rate to be close to 80 per cent.

This example is especially instructive since many writers have advocated a series of probing questions on economic activities effectively designed to demonstrate that all farmers' wives are members of the labour force. The Turkish case shows that it is possible to incorporate this assumption at the coding stage if that is all that is needed. Indeed, it would be equally feasible to incorporate the assumption at the analysis stage so long as there is a simple rule as to how all rural women with certain other characteristics, such as age and marital status, are to be classified.

Definitions of economic activities that include all processing of primary produce and thus cover domestic activities, such as food processing by means of grain-grinding and vegetable pickling and the making of cloth for the family, inevitably bring almost all rural women into the labour force. Whatever the merits of the argument that the value of housework should be accurately reflected in national accounts, there are still sound practical reasons for wishing to be able to distinguish between rural women whose tasks are exclusively domestic and those who are active participants in agricultural production. Extension services need to know what proportion of their potential clientele is female; planners need to be aware of the existing time constraints likely to prevent women from participating in new schemes; and it is important to know the extent to which male outmigration is resulting in the feminization of agriculture or a reduction in the size of the rural labour force. Any survey that is to be successful in measuring women's participation in agriculture needs to start with a design that makes no untested assumptions and that is flexible enough to be able to be responsive to variations in conditions from one district to another and also to variations between households.

A suggested sequence of questions on economic activities specially designed to measure women's participation but equally applicable to men is given in example 5.

Example 5. Illustrative sequence of questions on economic activities

A. What did you spend most of your time doing last week? READ - Enter first answer only and stop reading at that point:

Were you:

- Working for money or other rewards for people outside the family?
- 2. Working for money or other rewards for the family?
- 3. Working without being paid on the family land or in the family business?
- 4. Working/caring for a garden or for animals or making things for sale?
- 5. Looking for work but unable to find it?
- 6. In school/training?
- 7. Retired/permanently too ill to work?
- 8. Working at housework/caring for children?
- 9. Doing something else? What?

UNLESS Response 1-4, ASK:

B. Besides (activity mentioned above) some people are also involved in other activities - during the week did you do any:

- Work for money or other rewards for people outside the family?
- Work for money or other rewards for the family?
- 3. Work without being paid on the family land or in the family business?
- 4. Work caring for a garden or for animals or making things for sale?

C. The not economically active population

One of the more productive ways of approaching the problems associated with the definition of the economically active population is by starting at the other end of the spectrum with the definition of who should be included among the not economically active population. An approach from this direction is especially important where the intention is to use a questionnaire sequence that begins by separating the economically active from the not economically active and asks no further questions on the possible economic activities of the not economically active (see above).

The not economically active members of the population must, by definition, not engage in any significant amount of economic activity. Included among the not economically active without any doubt are those persons who are too young, too old or too disabled to be able to contribute to the economy plus those persons who have access to non-wage sources of income sufficient to allow them to have made a choice to withdraw from the labour force. It is customary to assume that full-time students and those who have formally retired are not economically active although in both cases it is advisable to check that they are not engaged in some economic activity as a means of gaining some supplementary income. The other major category of the economically not active are those who are only involved in non-economic household activities. The majority of this last category are almost invariably married women who are customarily classified as housewives.

In defining the "housewife" category as a sub-category of the not economically active, it is vital only to include those women who have no economic activity. Some censuses endeavour to do this by requiring that such persons be "full-time" housewives. In its 1977 census, Iraq differentiated between "fulltime housewives" and those who were "housewives part-time". The category of part-time housewife has an unfamiliar ring because in popular speech housewife is a residual category, a woman is only a housewife when she has no other occupation. (Many feminists have attacked the usage of the term "housewife" on the grounds that there is no equivalent masculine term for a "househusband"; they would prefer an expression such as "full-time homemaker".)

Once a woman is classified as not economically active in a typical economic activity question sequence (such as that presented above), then there is no later chance to correct any misclassification because the questions on occupation, industry and employment status are automatically skipped. It has been recommended that a question on status in employment should be asked first as a means of capturing women who should be recorded as family workers. This does not solve the problem, however, of women whose economic activity is strongly seasonal or is not perceived as work by other family members. A requirement that only "full-time housewives" may be classified among the not economically active may serve to remind the interviewer that any form of economic activity precludes an individual from being classified as not economically active. There is also a risk, however, that a busy interviewer, faced with a report of strictly seasonal activity or of female work, such as reaping in return for gleaning rights, will still take the easy way out and record the woman as a full-time housewife.

In a situation where it is not possible to exercise strong supervision over interviewers, and the aim is to secure a full record of women's economic activities, it is important to so structure the questionnaire that recording a woman as a housewife is not a markedly easier option than describing her activities. One way of doing this would be to insert a series of questions on whether the woman has ever engaged in any form of economic activity and, if so, what it was and at which life-cycle stage it was undertaken. This would have the added benefit of providing information on the proportion of women who have never engaged in any economic activity.

D. Time-use surveys

The present section examines the methodological issues that arise once a decision has been taken to include a time-use segment in a household survey or survey programme. Time-use surveys are not new (Kaberry [63]), but until the 1970s they were largely confined to anthropological studies (Kirkpatrick [64]). What is new is the desire to find ways of incorporating such studies into large-scale surveys. Of the 13 studies examined by Kirkpatrick only one, with a sample size of 320 persons, included more than 50 households. Clearly the problem is to simplify the methodology without making unacceptable sacrifices in the quality of the data.

There are essentially four basic methods of collecting time-use data (White [65]). These are as follows:

(a) Observation. This involves an observer actually watching what is done and making a record at the time. It is clearly a vastly labour-intensive method. It also has the disadvantage of intrusiveness: Will people behave as usual when they learn that their movements are being recorded?

(b) Random instant measurement. This involves having a schedule of random visits to households and then recording what the members were doing just before the arrival of the investigator. This resolves the problem of the researcher influencing the activities carried on and increases the amount of data that can be collected within a given period (Johnson [66]);

(c) Diaries. In this method people are asked to keep a record of their own activities (Hayami [67]). Generally this method makes limited demands on the interviewers' time but it demands a literate population with a reasonable time-sense. There has been an attempt to overcome this problem by the use of pictorial charts among illiterate women in India (Mencher <u>et al</u>. [68]);

(d) Recall. Respondents are asked to remember what they did during some earlier period.

In most developing countries the most practical way of incorporating time-use data requirements into a sizeable household survey is through using some form of recall method. In a restricted sense, this is what happens in all surveys that ask respondents how many hours they worked last week or how many months they have been employed during the year. The difference is that the time-budget seeks an account of all activities during the specified period (or of certain specified activities plus a residual usually considered to cover leisure and sleep). There is considerable evidence that the most effective recall period is no longer than 24 hours (Asia Society [69]). When asked for information on longer periods respondents simply forget to include all their activities. This is especially true when they work in agriculture or other occupations with no fixed hours. For one Javanese area, it is possible to compare recall data covering 24 hours, 30 days and 1 year (Wigna <u>et al.</u> [70]). Depending on the wealth of the household the proportion of hours of income-producing work apparently forgotten in a one-year recall ranges from 57 to 42 per cent (with the richer households being the more "forgetful"). Reducing the recall period to 30 days still results in some from 23 to 45 per cent of such work being forgotten.

In the Philippines, where it was possible in one study to contrast results from one-week recall with direct observation, mothers appeared to underestimate their own market production time by 69 per cent and that of their husbands' by 49 per cent. Results for home production were much closer (within 6%) but distinctions between child-care, cooking and other work differed greatly, possibly because of problems in accounting for activities that can be performed simultaneously (King and Evenson [71]). Many a mother may not know whether to call her activities at a particular moment, taking care of the baby or cooking the dinner; the same is true of a woman who rocks the cradle with her foot while she weaves with her hands. For this reason it is advisable to ask separate questions on child care, as discussed below.

E. The division-of-labour module

In some cultures, small-scale surveys or pre-tests may show that timebudget methodologies are inappropriate because of an inability of respondents to conceptualize tasks in terms of time units. This was found to be the case in Kenya (Smock [72]). Since it was still a priority in Kenya to use the Integrated Rural Survey to investigate the contributions of both sexes to agricultural production, an alternative activity-specific approach was developed in what was termed a division-of-labour module to be incorporated into the survey. In this questionnaire module, the agricultural cycle is divided into four activities: planting, weeding, harvesting and marketing, for each of 10 major crops. Respondents were asked to say which groups, defined by sex and age, within the household (a) do not work; (b) work regularly; or (c) work sometimes, at each of the four stages of the agricultural cycle for each of the 10 crops. Enumerators omit all crops not grown by the household and demographic groups not found in the household. Respondents are asked a similar question on the regularity of work in household tasks such as care of poultry and livestock, food preparation and cooking, and fetching water and firewood.

The module was asked of women rather than men partly because it was already known that more rural women than rural men were involved in agricultural production and partly because the experience of enumerators showed that female respondents were more easily located and interviewed. The six demographic groups specified were females aged 15 and over, males aged 15 and over, females aged 6-14 not at school, females aged 6-14 at school, males aged 6-14 not at school and males aged 6-14 at school. This grouping simplifies both data collection and analysis (see the schedule of illustrative economic activity questions in example 7 at the end of the present chapter).

Obviously this module can readily be adapted to meet different agricultural conditions (it was indeed necessary to have a module that was applicable across a broad range of ecological zones within Kenya). Such a module, however, does have a number of disadvantages as well as advantages when compared with a time-budget module. Although there is a great gain in simplicity of questioning and analysis there is also a severe loss in the specific information gained. That is not the major difficulty, however. The great advantage of the time-budget survey approach is that it makes it difficult to give totally negative responses; everyone has 24 hours in a day that are occupied somehow. In Kenya, it was already well-known that women play a very significant role in agricultural production, and there was little objection to women being made the respondents for both sexes. In other cultures with men as the respondents it can be imagined that a negative response might set in almost automatically. Once the respondent has stated that his wife does not work, such questionning may not elicit any further information, even when she does assist with the harvesting and is in charge of the rearing of small livestock.

There are a number of precautions that should be taken when a division of labour module is to be used in a cultural context where there is no widespread awareness of women as significant contributors to agricultural production. Care should be taken in designing the questionnaire module to ensure that it is not easier for the respondent to say no than to say yes. Where the responses to questions on women's work are all negative, probes should be used. Indeed, it may be appropriate to mix questions on what are traditionally considered to be male and female tasks to avoid the development of a response set (that is, where the respondent answers yes, yes, yes or no, no, no, without giving much attention to the questions because several questions in succession appear to be on similar topics).

Questions should also probably be couched in terms of helping with the work rather than simply performing the tasks because this is how women's role is often perceived. Thus, for example, in Indonesia, where women's role in rice cultivation is clearly acknowledged, even the women themselves speak of "helping with the harvesting" rather than of "harvesting". Care should also be taken not to downgrade activities because they are traditionally assigned to women. Thus, to subsume rice hulling under a general item of "food preparation and cooking" may downplay a very significant economic role played by women. Interviewers should be specially trained to be sensitive to the risk of undercounting women's activities and on how to probe to check that negatives are true negatives. The experience of being told by the husband that the wife does no work for pay or profit while she sits in full view making fishing nets or groundnut cakes for sale is unfortunately not rare.

Special consideration should be given to which sex should provide the responses. For the pre-test at least it would be wise to interview husbands and wives separately and to check their responses against each other's. If discrepancies are numerous there will clearly be a need to refine the questions and to rethink the validity of the data-collection procedure. In some cultures it may be possible to carry out the interview with a range of household members present and thus to achieve an agreed view of the division of labour. In other cultures wives are unlikely to be willing to contradict their husbands in public and a better approach may be to insert into the questionnaire a brief paragraph explaining why it is important to have accurate information on the activities of both women and men. In household surveys where the respondents may be persons of either sex responding on behalf of other household members, it would certainly be worthwhile to do some preliminary analysis of the economic activities of women as reported by the two sexes. If there are significant differences, then more detailed analyses may be able to indicate in which kinds of households women's activities are likely to be differentially reported.

F. Women's agricultural work

When talking with planners, the conversation frequently shows that the one single area where data on women are most urgently needed is that of information on women's agricultural work. There are a number of reasons for this data gap. The great majority of women in developing countries live in the rural areas, but high-quality labour-force data for women are largely restricted to the small minority who are in formal urban employment. Thus there is a continuing mismatch between the need for and the availability of data. Extensive social change is underway in rural areas, including, in many cases, the outmigration of males who would formerly have been responsible for certain areas of farm work; and many different countries are facing continuing food shortages at seasons and in regions where such experiences were previously rare or unknown. Evaluation of the nature and extent of women's participation in food production has attained a new urgency.

While it is very important to measure women's agricultural work, this is a difficult task. The study of women's farm work provides an excellent example of the difficulties associated with any attempt to design a single questionnaire that could be used all around the world. Studies of women's proportional contribution to subsistence across a range of cultures show a great diversity. One study of their contribution to overall subsistence showed that while in some 30 per cent of cultures studied the contributions of the two sexes were approximately equal, the range was from 2 per cent of cultures where women were responsible for less than a tenth of production to 4 per cent where women were responsible for 80 per cent or more (White [73]). Another study of 398 cultures that considered contributions to agriculture, herding and dairying, hunting, gathering and fishing showed a similar range of variability (Heath [74]).

Looking at the matter from another angle, that of work input rather than subsistence production, suggests that there is a similar range of variation. Anthropological data in the first study cited above suggest that whereas in some 61 per cent of cultures studied men and women expend roughly equal time and effort on subsistence activities, in 16 per cent it is the men who are most active and in 23 per cent it is the women who are the most hard-working (White [73]). Such a finding is not what would be expected judging by the many standard population census and survey studies and reinforces the need to look again at what it is that these censuses and surveys are actually measuring.

When it comes to looking at who actually performs individual tasks the scope for variation is much greater, as is the actual variation found among cultures (Textor [75]). Around the world the roles that women are expected or allowed to play in agriculture and other basic subsistence activities vary widely. In some cultures women are secluded and do not work openly in the fields. In these cases it is necessary to be careful to ask about possible work within the home or the courtyard such as food processing, care of livestock, gardening, making and mending tools. There may also be seasons of the year when the pressure of work is such that women emerge from their seclusion to join in with field work. It is also common to find that the general restrictions upon women labouring in public do not extend to the poorest women in the community whose work is often forgotten and ignored. There are few surveys that record begging interspersed with employment as the occupation of poor women, yet this is a common enough pattern.

In asking questions on women's subsistence activities it is important to set up a question sequence that definitively establishes whether women are engaged in any activities in this area, whether on a year round or a seasonal basis and whether out in the fields or in a more restricted home location. The general expectation is that women usually do engage in some such activities but clearly there are categories of women who are not involved, notably those who are sufficiently affluent to have servants to carry out the physical work. (In this context it should be noted that the two sexes should be treated consistently. If a man whose days are spent overseeing the farm-workers working for him is a farmer, then so is a woman whose days are similarly occupied.) Another category of rural women who may not do any agricultural work are women from poor landless families. While their husbands may hire their labour out, these women may be in a situation where there is no wage work available to them. Clearly no assumptions should be made on the occupations of women in landless families. Rather a particular effort should be made to ensure that no economic activity of theirs is omitted from the record.

It is especially important that women's economic activities can be placed in the context of their household situation so that it is possible to distinguish between women who are in a position to choose to abstain from economic activities and those who are unable to participate in such activities because they do not have the capital resources required either in the form of access to land or human capital and skills to engage in craft and related works. Some surveys try to make this distinction by asking women whether they would like paid employment. Asking whether women are looking for work may have little point in contexts where poor women are only too well aware that there is no work to be found. Even questions on the desire for work may produce misleading responses in a situation where women cannot see other women in comparable situations in reasonably rewarding employment. One worthwhile measure may be to ask women at what wage they would be prepared to accept employment (although the question may arise as to the nature of the hypothetical employment being offered). This question is of especial interest in contexts where a husband is all that stands between women and bitter poverty. It should be possible to look at the responses of currently married women and compare them with the actuality experienced by women household heads facing the world as sole parents.

The basic query to ask women on their agricultural activities is whether they perform any such work. Negative responses should be probed to ensure that seasonal work, work with small livestock or other work within the compound is not being excluded. The next set of questions needs to cover the nature of the agricultural activities and the amount of time devoted to them both on a daily and on a seasonal basis. The same questions should be asked of women and men alike, for while there is a risk of women's work being under-counted there is also a risk of the farm work of men who are obviously farmers being overestimated while that of men who have other occupations as well is not recorded. A village school teacher may spend as much time in his vegetable plot as in school and a market trader may only go to the market when her cassava patch does not need her attention. In the past the assumption has sometimes been made that the labour inputs of women and children are only half those of adult men (Dixon [76]). Yet this is only an assumption and certainly not based upon measures of the time spent. A general questionnaire survey is not an appropriate place to attempt to measure the effort that is exerted by different categories of people.

The available evidence in this area suggests that women often do exert greater physical effort than men, but it is an appropriate place to make some examination of relative time inputs. It should be noted that there is no expectation of exactitude of measurements in fractions of hours, much less minutes. The aim is to get a reasonable estimation of contribution to economic output.

G. The valuation of housework

Controversy over the valuation of housework has recently increased (see e.g., Goldschmidt-Clermont [77]). A survey of non-monetary activities covered in the national accounts of 70 developing countries conducted in 1975 showed that whereas fully 69 included crop production and 53 covered fishing, only 6 included water carrying and none included housework (Blades [78]). The Kenyan case was especially interesting since the value of water-collection was calculated by making an estimate of the average time spent and costing it at average rural wage rates. In pastoral areas where water was collected by women, however, no value was inputed since it was argued that women had no employment opportunities and therefore their time could not be valued (Blades [78], p. 43).

Estimates of Nigeria's national income in the 1950s included the general services of housewives in cooking, cleaning and child-bearing, which were valued by reference to the average bride-price. The authors of the calculations argued that the bride payment was in effect for wives' general (i.e. noneconomic) services. Reclaiming this payment when wives desert their husbands is a common feature of Nigerian life. Other features of Nigerian life are that many cases have been known of wives suing husbands for debt; women's earnings from trade cannot be touched by husbands; food provided from women's own cultivation for the general use of the family is often on a loan basis and delicacies such as pastries are only provided for cash; and women nearly always live and eat in their own huts away from the menfolk. Altogether it seems reasonable to argue in this case that commercial transactions exist inside the family as well as outside it (Prest and Stewart [79], p. 10). This account would only be valid for certain areas of Nigeria but the argument raises some very interesting issues. Early national accounts in what was then known as Northern Rhodesia (now Zambia) adopted the principle of only including items that were sometimes paid for in rural areas with the consequence that most housework was excluded but grain pounding and beer brewing for consumption within the home were included because these were sometimes items of trade at the village level (Deane [80], p. 125). In such a situation, once firewood begins to be sold or some villagers charge rent the calculation of national income has to change rather rapidly.

There is now general agreement that the treatment of the general services performed by housewives provides one of the best examples of the essentially arbitrary fashion in which the production boundary determining what should figure in the national accounts is drawn in the United Nations System of National Accounts. Many writers have pointed out that the failure to impute

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values for housewives' services has curious consequences, for example, that the national income declines when men marry their housekeepers. One option would be to value the services of wives at the average wage for servants with similar responsibilities. Against this it is argued that the same reasoning would lead to imputing a chauffeur's wage for people driving themselves to work. The Courcier system of national accounts once used by some francophone countries draws a different boundary and excludes domestic servants as well as housewives (but then why not laundries or restaurants?) (Blades [78], pp. 47-48).

Clearly, with national accounts as with any other statistics, how they should be compiled should depend upon the purposes for which they are to be used. One circumstance in which the exclusion of household work causes problems is where the emphasis is upon measuring growth: if food processing only enters the national accounts when it becomes monetized then any estimate of growth will be biased, similarly with the production of clothes, provision of water and the like. Equally as women move from domestic production in the home to paid employment, estimates of increases in production are likely to be seriously biased. If every woman were to be paid for doing her neighbour's washing there would be a massive change in the statistics but not in the amount of washing. There are villages in northern Nigeria where wives in purdah each specialize in the production of some small snack that their children then sell to other wives. Overall production is not increased but women gain access to a source of cash that otherwise they have little opportunity of securing (Simmons [30]).

The case of food processing is of especial significance. In many countries it is the women who husk and polish rice, mill maize, wheat and barley, and pound and dry plaintain and root crops. Some 27 of 70 countries studied in one report include food processing in the subsistence sector in their national accounts (Blades [78]). One argument raised against including such processing in the national accounts relates to the conceptual difficulty of distinguishing between food processing and cooking in some contexts. In this instance it is difficult not to see some element of sexual discrimination in the definition of economic activities to be included in the national accounts. If it was men who were spending 14 hours a day husking rice it is difficult to believe that this activity would not appear in the national accounts. A major disadvantage of excluding subsistence food processing from the national accounts is that as such processing becomes commercialized with the arrival of mechanized milling or commercial fish-smoking there is an exaggerated impression of the increase in production, much of which is only the consequence of transfer of the activity from the subsistence sector.

In the specific case of field surveys covering subsistence production the solution is a relatively simple one. Once again a building-block approach will make it possible to use a number of different definitional boundaries when the data are being analysed. This is the great advantage of using some form of time-use survey, which will show how much time is actually spent in food processing and cooking and the extent to which the former activity is being moved outside the household. It is also important to have local data on the cost of labour for food processing if performed by servants, or the total cost of commercial processing.

H. Unemployment

Measuring unemployment among women in industrialized countries poses severe problems, essentially because women have an apparent choice of roles and are likely to be recorded as housewives rather than as unemployed persons. In developing countries measuring unemployment for either sex is fraught with difficulties, but measuring female unemployment is exceptionnaly complex with almost any answer obtained being open to further questionning (Standing [50]).

If it is decided that the household survey should at least make an attempt to record the level of unemployment for women and for men then it will be vital to determine what the reason is for being interested in unemployment, and therefore what the information is to be used for. In thinking about the significance of unemployment in this context it is necessary to be aware of the distinctions between willingness to work, interest in working, work seeking and availability for work. There are also issues relating to the range within which work is sought in terms of type of work, type of employer, level of income, hours of work and geographical location (Anker [27], p. 68).

It is often argued that in developing countries without any social security provisions an individual needs a certain level of resources in order to be able to afford to be unemployed. Thus, for example, the young person in an established urban family may be fed and clothed by their family while they look for a job with a status and wage considered to be appropriate to their educational qualifications. In contrast the lone urban immigrant with no one to look to for basic support cannot afford to wait but must take whatever is available even if this means accepting a more menial task or indeed creating their own employment by taking up petty trading or some other form of self-employment. In the case of women, cultural factors will probably mean that they are less likely to be on their own and more likely to be a member of a family household either as a daughter or a wife. Yet among a numerous category of the very poor there may be no question of not engaging in some form of economic activity to add to the resources of the household. There are also some categories of women who are on their own and will be driven to any expedient to support themselves. Examples include many unmarried mothers and deserted wives who have not only themselves but their children to support. If there is no legal means at hand these women may be driven to such expedients as prostitution or illicit brewing and bar-keeping, which are occupations that are likely to be inadequately recorded in conventional surveys.

It has already been stressed that one reason why women's economic activities are frequently under-recorded is the social status associated with the family having achieved sufficient economic security to allow its female members to withdraw or abstain from economic activity, especially in the paid labour force. In this context social prestige will best be maintained if the daughter, who has been disappointed in her expectations of securing clerical work upon the completion of her secondary schooling, is simply described as "staying at home to help her mother with the housework". Without an in-depth investigation it will be a difficult matter indeed to distinguish between daughters whose families never intended that they should enter the labour force prior to marriage and those who have abandoned a fruitless search for a job or indeed who are still searching but do not wish to confess to failure. Their brothers may be recorded as unemployed because it will be expected that they must either be working, studying or unemployed, but for women the more prestigious option of being described as a "homemaker" is always available. Measuring unemployment among married women presents an even more daunting prospect. In a situation where all avenues for obtaining a position that is compatible with child-care needs have been explored and found to be closed the women themselves may not be clear whether they are unemployed or out of the labour market. Questions on whether they would accept a job and if so at what minimum wage may well be so hypothetical in a community where there is no work available to married women as to be virtually unanswerable.

The discussion above, with its emphasis upon jobs, essentially relates to the urban context. In rural areas where field work is culturally acceptable for women it is likely that at some seasons of the year when agricultural activities are at their peak some employment will be available. The introduction of mechanization or even of sickles rather than rice harvesting knives, however, is reducing the availability of employment in many areas (Stoler [58]). Here women in families with access to land are unlikely to be unemployed since they will be at least partially occupied on the family plot. Women in landless families may be more openly exposed and more willing to admit that they wish to have access to paid work.

Actual questions on labour-force participation range from the simple to the extremely elaborate. The only question in the Thai Contraceptive Prevalence Survey in 1980 was, "What is your occupation?". The World Fertility Survey core questionnaire was somewhat more concerned to secure information on women's labour-force participation and asked the sequence of questions shown in example 6.

> Example 6. World Fertility Survey core questionnaire questions on women's labour-force participation

601. As you know, many women work - I mean aside from doing their own housework. Some take up jobs for which they are paid in cash or kind. Others sell things, or have a small business, or work on the family farm. Are you doing any such work at the present time? (If No move to 602; if Yes move to 604).

602. Have you ever worked since the day when you were first married?

603. In what year did you last work?

604. I would like to ask some questions about (your present work, the last work you did). What (is, was) your occupation - that is what kind of work (do, did) you do?

605. (Interviewer to classify as farming/non-farming)

606. (If farming) (Is, was) that your family farm?

607. (Do, did you work mostly at home or (do, did) you work mostly away from home in that job?

608. (Are, were) you employed by some member of your family, or by someone else, or (are, were) you self-employed?

609. (Do, did) you get paid mostly in cash or mostly in kind?

A further seven questions are asked on previous work history.

It might be thought that the introduction to this question series makes it quite clear what kinds of work women are supposed to report, yet experience in the field in Cameroon showed that many women did not really listen to the question and still claimed not to be working even when they had visibly just come in from working in the fields (Ware [81]). In this situation the only solution appears to be to read out a list of possible activities, starting with the most common and anticipating a positive response, e.g. "What kind of farming work do you do?". One may then reach a situation as happened with the World Fertility Survey in Fiji where it is necessary to be able to draw the dividing line between housework and economic activity. In the Fijian case rearing 9 chickens was housework, rearing 10 or more was counted as participation in agriculture.

It should be stressed that the confusion is not simply in the minds of the possibly illiterate respondents. As the introduction to the World Fertility Survey questions clearly shows, for the surveyors there is work, then there is housework, which is not counted as work. (The notes on the questionnaire actually state that "the basic notion is that women who work are exposed to the outside world and to values which are theoretically incompatible with family values" (World Fertility Survey [10], p. 6).)

A woman may spend three hours a day carrying heavy headloads of water and firewood, six hours pounding grain, two hours making and laying bricks and one hour making clothes, yet unless she engages in these activities not for the benefit of her own family but for monetary pay or profit they may not be counted as work however arduous the physical labour involved. A domestic servant performing exactly the same tasks, or indeed simply sitting around waiting for orders, would be counted as working providing that she was being paid in cash or in kind. One question that arises is how a man who reported this listing of daily activities for his own family's benefit would be classified. According to some survey definitions he is not economically active or working either but the cultural constraints are such that it is certain that he would appear as a member of the labour force.

One in-depth examination of selective under-counting of women's participation in agricultural activities in data collected by population censuses and labour-force surveys has shown that the total labour force is generally larger and women (and children) form a higher proportion of the total where the definition of economic activity includes:

(a) Farm production for own consumption only, as well as production intended in whole or in part for sale or exchange;

(b) Unpaid work by family helpers;

(c) Homestead-based crop processing, preparation of crops for storage, transport to markets, raising small animals and poultry and cultivating kitchen gardens, in addition to field-based production and processing activities.

The female proportion is also generally higher when:

 (a) A low minimum number of days or hours of work is specified as a criterion for inclusion in the labour force;

(b) A longer reference period is defined during which economic activity is to be assessed, for example, during the preceding cropping season or year rather than the preceding day or week;

(c) The survey is conducted during the peak season of agricultural activity, especially if the reference period is brief;

(d) Respondents are asked for a secondary activity or occupation as well as a main activity, and a usual activity as well as a current one;

(e) The interviewer probes the specific activities, based on knowledge of the crops and animals raised, rather than accepting without question the woman's definition of herself as housewife, or her possible assumption that farm work refers only to wage-earning employment;

(f) The interviewer questions women in the household directly rather than asking male household members to report on women's activities;

(g) The work of children between the ages of 10 and 15 is routinely recorded. (Dixon [82])

I. Asking questions on economic activities

There are many different ways of designing a question sequence covering economic activities. Essential features of any sequence that will be adequate to the measurement of women's activities (as well as men's) are as follows:

(a) A clear recognition that wage-earning workers may be in the minority;

(b) Good provision for the coverage of work in family farms and business enterprises;

(c) A balance between the desire for greater accuracy of data relating to the immediate past and the need to cover the full calendar cycle to pick up highly seasonal activities;

(d) Provision for measuring both the hours and the weeks worked during the year;

(e) A design that discourages any tendency to record women as housewives and then to ignore any other economic activities;

(f) Scope for individuals to be recorded as engaging in several different types of economic activity.

Sequence A in example 7 below presents one possible format. The first question is deliberately designed so that housekeeping is the last choice to be read aloud. Interviewers asking the questions should be trained in probing for some of the activities that are commonly overlooked. Thus, for example, there is some overlap between questions 2 and 3. The intent is that there should be relatively heavy probing on question 2, the great majority of people in rural areas are likely to do some agricultural work even if they also have paid employment or homes to run. By asking separately about different kinds of activity it is possible to gain some idea of the multiple roles played by both sexes.

As noted elsewhere, the income questions are likely to prove difficult both because people are reluctant to discuss their incomes, even if they know them, and because many will not know their incomes. Only the pre-test will show whether people can estimate the kind of wage that would need to be paid to hire someone to do their work. Where the answers to questions can be given in purely numerical terms, e.g. weeks per year or money per week, there may be a choice in questionnaire design between providing codes for set ranges or having the interviewer write in the exact answer in an appropriate number of boxes ready to be punched directly. The advantage of the latter choice is that the ranges can be determined after the event when the clustering of responses is known. It also makes the calculation of averages and the like more exact. The disadvantage is that respondents have often been shown to be more willing to answer income questions in terms of a range rather than an exact amount, in any case, relatively broad ranges also make it clear that an approximate answer is greatly to be preferred to getting no answer at all.

The question relating to the hours spent on various activities during the previous week may well prove to be one of the most important questions of the whole survey (Example 7, sequence A, question 7). Interviewers should receive intensive training in how to take respondents through this question, using gentle prompts, so as to secure the most accurate data possible on each activity. The aim is that the interviewers should be able to convert a range of responses such as "I go to the next town twice a week to get fuel", "I help out in the shop when it is busy and I'm not cooking" or "Well, we keep a few chickens just like everybody else" into estimates of the actual time spent during the previous week. Where agricultural tasks are highly seasonal there are obvious disadvantages to this concentration upon the previous week but even these difficulties are outweighed by the advantage of being able to refer to specific events that are still clearly within the memory of the respondent. (It should be noted that these questions are not well suited to being posed to a proxy respondent.)

It is not being argued that illiterate respondents can themselves say exactly how many hours per week they spend in various activities. Rather, the interviewers can be trained to interpret comments such as "I went to work on my vegetable patch every afternoon from the mid-day meal till it was time to prepare the evening meal" into a reasonable approximation to the number of hours involved, which is all that is required. Clearly, some cultures are much more centred on the passage of hours during the day than others. The day may be divided up by times for prayer or the children's school hours. At a minimum, most rural cultures take account of the passage of time through the movements of the sun.

Whether it is worthwhile to ask about income during the past week will depend upon the experience gained during the pre-test. Again, there will certainly be problems with seasonality. The advantages are that people can be tied down to specifics and are not required to generalize about matters that they have not thought about before. For many people who are not wage earners the concept of an annual income may well have little meaning. While able to evaluate prosperity or the lack of it against last year or the year before they cannot attach a figure to this evaluation.

Example 7. Illustrative economic activity questions

Sequence A

- 1. During the past year what did you do for most of the time: and the second state of the sec Manufacture state of the second state of the second state of the second state of the second state of the second
 - READ
- 1. Work in a paid job.
- 2. Work in the family business.
- 3. Work on the family farm.
- 4. Go to school/college.
- 5. Look for work.
- 6. Housekeeping/childcare.

DON'T READ

- 7. Too old or ill to work.
- 8. Other: specify
- 2. Many people have more than one activity: during the past year did you spend any of your time:
 - 1. At paid work. Yes/No
 - 2. Working in a family business. Yes/No
 - 3. Working on the family farm. Yes/No
 - 4. Doing any kind of agricultural work, e.g. livestock raising, helping with harvest etc. Yes/No
- 3. During the past year how many weeks did you work? (write in)
 - 1. In paid employment
 - 2. In family business
 - 3. In farm work of any kind

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4. Most of the time were you working:

1. Full-time (30 + hours per week).

2. Part-time (15-29 hours per week).

3. Just a little (less than 15 hours per week).

- 5. Can you say roughly how much money you earned during the year? (Code appropriate ranges of money in local currency.)
- 6. For those who cannot give a money figure:

Looking at people who do the same kind of work as you do - how much would you have to pay someone to do your work? (Code as in Q. 5.)

We have been talking about the past year - can we now talk about the past week?

7. During the past week, how much time did you spend (write in hours):

(Note: There are 168 hours in a week but at least 50 are likely to be spent in sleeping, dressing and the like.)

1. Working in paid employment

2. Working in family business

- 3. Working in agriculture (for family)
- 4. Working in agriculture elsewhere (unless already counted under 1)
- 5. Fetching water

6. Getting fuel

7. Cooking, washing clothes, cleaning house

- During the past week what was your total cash income from (write in amount):
 - 1. Working in paid employment
 - 2. Working in family business
 - Sales of agricultural produce (including eggs, wilk, vegetables)
 - 4. Remittences from relatives.

5. Loans.

- 6. Other: specify
- 9. That comes to a total of about (check) taking a whole year would that be an average sort of amount?
 - 1. Yes, about average.
 - 2. No, less than average.
 - 3. No, more than average.

Sequence B

An alternative sequence of questions on economic activities, specially designed to measure women's participation but equally applicable to men, would be as follows:

- What did you spend most of your time doing last week? Were you: (Enter first answer only and stop reading at that point.)
 - Working for money or other rewards for people outside the family.
 - Working for money or other rewards for the family.
 - Working without being paid on the family land or in the family business.
 - Working caring for a garden or for animals or making things for sale.
 - 5. Looking for work but unable to find it.
 - 6. In school/training.
 - 7. Retired/permanently too ill to work.
 - 8. Working at housework/caring for children.
 - 9. Doing something else. What?

UNLESS response 1-4 ASK:

- Besides (activity mentioned above) some people are also involved in other activities - during the week did you do any:
 - Work for money or other rewards for people outside the family.

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- Work for money or other rewards for the family.
- Work without being paid on the family land or in the family business.
- Work caring for a garden or for animals or making things for sale.

Now to check:

- 3. When did respondent (R) most recently work for money?
 - 1. This week.
 - 2. 1-3 weeks ago.
 - 3. 1-5 months ago.
 - 4. 6-11 months ago.
 - 5. 1-4 years ago.
 - 6. 5-9 years ago.
 - 7. 10 + years ago.
 - 8. Never.
- What kind of work was this?
 (e.g. weeding paddy, bus driving, shirt-making in a factory)
- 5. Who was the employer?
 - 1. Government.
 - 2. A co-operative.
 - 3. Large employer (100+ employees).
 - 4. Medium employer (10-99 employees).
 - 5. Small employer (9 or fewer employees).
 - 6. A private household, person.
 - 7. Self-employed.
 - 8. Other (specify).

- 6. How far away was the work?
 - 1. Worked at home.
 - 2. Within 5 minutes journey.
 - 3. 5-29 minutes journey.
 - 4. 30-59 minutes journey.
 - 5. 1-2 hours journey.
 - 6. 3-11 hours journey.
 - 7. 12-23 hours journey.
 - 8. A day or more's journey.
 - 9. It varied.
- 7. What was the wage per week?

(Put in locally appropriate codes based on census or other survey with several categories for the lower incomes and few for the upper incomes.)

- 8. That was for how many hours work?
 - 1. Less than 5.
 - 2. 5-9.
 - 3. 10-19.
 - 4. 20-29.
 - 5. 30-39.
- 9. Who cared for the children? (Note: this question is to be asked of men and women.)
 - 1. No children.
 - 2. Other children.
 - 3. Spouse.
 - 4. R's relatives of own generation: sisters, cousins etc.
 - 5. R's relatives of older generation: mother, uncle.
 - 6. Servant(s).

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7. Other paid carers.

8. Institution: child-care centre, kindergarten etc.

9. No one: children alone, in school etc.

10. If not working this week: Why are you not working at present?

1. Holiday.

2. Illness, accident.

3. Unemployed, need work.

4. Wrong season.

5. Working but not paid work.

6. Strike, dispute.

7. Bad weather.

8. Other (specify).

Yet another approach is to use an activity check-list, as shown in example 8. This nominates a range of activities and then checks participation in them by each household member above a certain age. The check-list given here is loosely based upon one that has been used in India (Anker [12]). Interviewers need especially intensive training in how to use the check-list, including the experience of carrying out a number of interviews watched by a superviser who can explain how to deal with problems and apparent anomalies. The original questionnaire measured the time spent working as: small amount; less than half a day; about half a day; more than half a day; and full day. These loose categories were then considered to be equivalent to one, two, four, six, and eight hours for the purpose of handling the data in calculations. So that everyone is using the same scale it seems preferable to ask the respondents about hours per day or to train interviewers in the conversion of rough statements into hour-equivalents. Such an approach also allows for the recognition of those who work for much more than eight hours a day at occupations such as petty trading or home lace-making. Similarly, an attempt to estimate weeks per year seems preferable to the proportion of days in a season of uncertain duration. Again, interviewers will need to be trained in probing techniques and given instructions on the number of weeks to be allowed for the planting and harvesting seasons and so on.

Working through this check-list for each member of the household above, say, age nine will certainly consume a significant amount of time during the interview. The information gained, however, will provide an invaluable insight into the family economy. Indeed, even if all the survey covered was this checklist, a review of the composition of the household and a few questions on the socio-economic background of the household, it would still yield an immense amount of useful information on the situation of both women and men.

Did R do this in past 12 months? Yes/NO	Kind of work	Hours per day	Weeks per year	Rank order as contribution to family well-being	Cash income per week
Activity					
Farm work for others		-			
Farm work for family				~	
Work in garden					
Work with animals		1			
Food processing (e.g. rice husking)					
Handicrafts (e.g. weaving, pottery)					
Non-farm wage work					
Petty trading					
Work in family business					
Any other work bringing in cash					
Gathering fuel					
Fetching water					

Example 8. Illustrative economic activity check-list

VII. MEASURES OF INCOME AND WELL-BEING

A. General issues

There are very real problems associated with the measurement of income in a developing country context where the majority of the population are not wage earners and where written records of monetary transactions are not a common feature of family life. To cite an extreme case of intensive interviewing, in Nigeria in the 1950s interviewers lived with cocoa farmers throughout the year in order to secure a full record of their incomes. Yet the final analysis still showed that the actual expenditures were in excess of their incomes as recorded by the survey (Galleti and Baldwin [83]). This is an extreme case and it is certainly possible by a concerted effort to obtain income data of reasonable quality in a specialized survey of households. The sheer number of detailed questions required to achieve income data of an adequate quality, however, leaves little scope for taking up other issues within the scope of a single interview format (Mueller [84]).

Apart from the general problems associated with measuring the incomes of households in developing countries there are additional problems associated with the measurement of female incomes. Where women are wage earners the matter is a relatively simple one. The great majority of women, however, are not wage earners. They are much more likely to be either self-employed workers active in petty trading or craft work or family workers at work within the family farm or small-scale family business. Illiterate self-employed women are often perfectly sincere in the protestations that they do not know their incomes since they keep all of their money in one purse and make no distinction between business and household expenses. Their only income measure is whether there is enough money to pay for household expenses and to replenish stocks for further production or trading (Peluso [85]). Such women do not keep books or accounts and only have a general feeling for a positive or adverse trend in their affairs. Detailed and lengthy probing as to amounts bought and sold, expenses and mark-ups can secure an estimate of income over a short recall period, such as the previous week, but it is much more difficult to estimate an annual income figure. Additionally, women whose trades are semi-licit or illicit, such as prostitutes or home brewers, are likely to be reluctant to discuss their incomes, as are women who eke out their incomes and evade taxes, dues or other regulations.

A majority of women in many societies are not even self-employed, but rather are members of family farms or enterprises. In these cases the issue is how their share of income can be measured and, indeed, whether they can be said to have a share of the family or household income. Some women will be living in households where there is no family enterprise, e.g. those exclusively dependent upon a male wage earner and only engaged in domestic chores. The question arises whether, in the absence of personal incomes of their own, such women are to be regarded as being without income, or again allocated a share of the household income. Another issue relates to the incomes of female household heads and of their households.

Women's incomes are one of the areas of statistical investigations on the situation of women that most stand in need of in-depth research in the field (United Nations [4]). In the meantime the present study is concerned with

practical steps that can be immediately implemented. These steps fall into two main categories:

(a) Reasonable income questions that can be asked without the need for a vastly lengthy question sequence;

(b) Questions that look at individual and household welfare without passing by way of income questions as such.

Example 9 lists a range of income questions that can be asked in the context of a multi-subject survey in a developing country with a reasonable expectation of receiving meaningful answers. The areas covered are the following:

- (a) Wages in wage-earning occupations;
- (b) Estimates of the returns to self-employment;
- (c) The wage-replacement cost of family labour;
- (d) Cash income controlled by individuals within the household;
- (e) The nature of the family budget.

It needs to be remembered that in looking at income figures the essential thing is to have an approximate order of magnitude. There is no need to know an individual's income to the last unit, rather the need is to know whether their income is to be counted in tens, hundreds or thousands. Too much emphasis can be placed upon exact figures when what is essential is to be able to classify people into those too poor to meet even the most minimal of basic needs, those on the borderline of survival, those with enough to survive plus a small surplus, the comfortably off and the positively rich.

Defining the groups in terms of poverty or affluence rather than absolute income once again indicates the difficulties of looking at women's individual incomes. While incomes may well vary within the household, the standard of living is likely to be relatively homogeneous. The wife of a rich businessman may have no independent income of her own but her standard of living will be very different from that of the lone widow whose only income comes from begging. It is also important to remember that for most purposes associated with examining the situation of women the emphasis will need to be on the lower end of the income scale rather than on the degree of wealth of the rich.

Given the difficulty of securing accurate measures of household and individual income there are considerable advantages to looking at non-income measures of household and individual well-being. Owing to the emphasis here upon the individual, especially the individual woman, measures of individual well-being that are likely to vary between household members are especially important. Example 9 provides both household and individual measures of well-being, the intention being that the household measures could be used to compare households with male and female heads and with different overall sex compositions. It is worth noting that many of the measures of individual well-being are essentially measures of resources. Example 9. Illustrative income questions

A. For wage earners

- 1. How much do you earn per week? (after deductions such as taxes).
- How much did you earn last year? (i.e. how many weeks were you being paid at that rate x weekly rate - interviewer to help respondent with any calculations needed and to write down the calculation for office checking).
- 3. Do you receive any payment in kind such as board or free meals? If yes: Roughly what value does that have? (half your wage, a quarter, an eighth?).

B. For the self-employed

- Can you work out roughly how much money you made last week? That is, how much money did you take in less the amount you had to spend on stock, supplies, and the like?
- How typical would that be of the year as a whole? Would you earn more than this or less than this normally? (Interviewer to code whether average earnings would be 1/4, 1/2, 3/4, same, 1 1/4, 1 1/2, 1 3/4, 2 or more times the above.)
 - C. For workers in family enterprises or farms who do not receive a wage/share
- If you did not do your work and the family had to hire someone else to do it, how much per week do you think that they would be paid? (Interviewers would be trained to probe on this by asking questions such as "Well, how much are farm labourers who do your kind of work usually paid?")
- OR 2. "How much do you think that you could earn per week if you went and did the same work that you do now for another family/ enterprise?"

D. Control of cash

- 1. Wage/salary.
- 2. Self-employment.
- 3. Rents/other property income.
- 4. Regular allowance from family enterprise/farm.
- 5. Regular allowance from spouse.
- 6. Regular remittances (not spouse).
- 7. Other: specify (Code first on list that is applicable.)

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IF NO:

What do you do when you need cash for yourself (for example to buy clothes or pay for medicine)?

1. Ask spouse.

Take money meant for household expenses.
 (Further codes to depend upon pre-test.)

E. The nature of the family budget

1. For the people who live together here how is the money shared? Do you (READ)

- Each keep your own money
- Each keep own money but pay some into a common fund

- Let one person keep charge of all the money? Who?

- Have another arrangement? What?
- 2. For farm households. When you sell a crop who does the money go to?
 - 1. All to household head.
 - 2. Shared between all adult household members.
 - 3. Shared between all male adult household members.
 - Spent on an agreed item for general benefit (e.g. new roof, school fees).
 - 5. Other: specify
- 3. When it comes to paying school fees how do you get the money together?
 - 1. From wage/self-employment of household head.
 - 2. From wage s/e of male household member (not head).
 - 3. From wage s/e of female household member (not head).
 - 4. From crop sales.
 - 5. From family business.
 - 6. From borrowing: family.

- 7. From borrowing: money lender.
- 8. From borrowing: institutional.
- 9. From remittance (e.g. older children).
- 10. Other: specify
- 4. For households with more than one wage earner

Who has the highest wage? (Number from household chart)

B. Access to credit

Studies of the situation of women have frequently stressed the importance of their lack of access to credit (Pala [86]; Buvinic <u>et al</u>. [87]). Actual data on this issue, however, are largely restricted to studies in the files of development agencies and are rarely published (Youssef and Hetler [88]).

Women's access to credit is not a simple matter to investigate. People are generally unwilling to talk about their incomes and are even more reluctant to talk about their debts. There is also the complexity associated with examining access to credit by individual women rather than by multi-person households. A choice may need to be made between asking about household access to credit and comparing male- and female-headed households, or asking questions of individuals and comparing female and male responses. (It is clearly inappropriate to ask proxy respondents about other individuals' access to credit.) It would be possible to do both but this would be very time-consuming.

The decision whether to ask about individual access to credit will depend upon the local cultural context. In some areas women, even when married, retain separate budgets from other family members. In other cultures it would not be accepted that married women should keep an individual store of cash. It should not be too readily assumed, however, that the local culture falls into the latter category. In many cases there will be a central household budget and, together with this, opportunities for women to assemble a small private kitty of their own from a small enterprise such as occasional dressmaking for friends or buying a few goods in medium-sized packages and reselling them in very small ones, both of which activities are unlikely to show up in response to conventional occupational questions. Where this kitty is, indeed, secret because the wife has not told her husband about it, perhaps because some of it comes from a household rather than an individual source, there are obvious pitfalls in asking about such money. Yet it is not realistic to ask about individual access to credit without establishing whether individuals do have money of their own. In general, married women can be expected to be somewhat reluctant to discuss their own money, especially if other household members are within earshot.

In framing questions on access to credit, respondents need to be given some indication of the magnitude of the sums to be borrowed, since the answers may well be different if the sum involved is the cost of a new headscarf rather than the price of a rotary cultivator or the lease on a shop. It will also be helpful to know whether there are any local women's groups that might have access to credit as a group either because they can bargain as a group with a lending institution or because the group itself runs a rotating credit association (of which there are many traditional forms known to women around the world).

The outline of an illustrative sequence of questions on credit is given in example 10. In deciding whether to include such questions in a household survey, thought will need to be given to the following issues:

(a) Would it be more profitable to gain data on the sex of clients from lending institutions? The answer to this question will be strongly influenced by the relative importance of institutional and informal loans. The more lending there is by small entrepreneurs the harder it will be to gather representative data from the lenders;

(b) How valuable would general data on borrowing patterns be irrespective of any breakdown by sex of the borrowers? While interest in women alone might well not justify such questions, the broader interest in credit in general might trip the balance in favour of inclusion;

(c) How honest are the responses likely to be? It is unlikely that data on individual debts will be of a high level of accuracy. The question then is just how accurate does the data have to be to be useful? Equally how useful are data on indebtedness that is not quantified?

Given the number of difficult issues associated with the inclusion of questions on credit it is absolutely essential that any questions that are inserted in a national survey should be adequately pre-tested in field situations where potential users can get a clear idea of the likely value of the data that can be obtained. It should also be remembered that sensitivity about credit may not be confined to the borrowers. In many cultures women money lenders are likely to be as secretive as women who perform abortions.

Example 10. Illustrative questions on access to credit

 Where would you yourself (singular) <u>a</u>/ go if you needed money, say, to pay for medicines for a sick child or for a sewing-machine or other tool of trade? <u>b</u>/

1. Bank.

- 2. Co-operative/credit union.
- 3. Money lender (legal).
- 4. Money lender (illegal).
- 5. Husband/wife. c/
- 6. Other relative.

7. Friend.

- 8. Knows no one/nowhere where could borrow.
- 9. Other: specify
- 2. Do you yourself currently have any loans (owe any money)? If yes: Who lent you the money?
 - 1. No loans/debts.
 - 2. Bank.
 - 3. Co-operative/credit union.
 - 4. Money lender (legal).
 - 5. Money lender (illegal).
 - 6. Husband/wife.
 - 7. Other relative.
 - 8. Friend.
 - 9. Other: specify
 - If yes: How much do you owe?
 - 1. Less than cost of 1 kilo of rice in local currency. d/
 - 2. 1-4 kilos.
 - 3. 5-9 kilos.
 - 4. 10-49 kilos.
 - 5. 50-99 kilos.
 - 6. 100-199 kilos.
 - 7. 200-499 kilos.
 - 8. 500-999 kilos.
 - 9. 1,000 kilos or more.
 - If yes: What rate of interest are you paying? If respondent doesn't know - interviewer to probe. e/
 - 1. Simple loan no interest.

- 2. Less than 4 per cent per annum.
- 3. 5-9 per cent per annum.
- 4. 10-14 per cent per annum.
- 5. 15-19 per cent per annum.
- 6. 20-29 per cent per annum.
- 7. 30-49 per cent per annum.
- 8. 50-99 per cent per annum.
- 9. 100 per cent or more per annum.
- 3. Do you have anything that is your own that you could sell/pawn/ mortgage to raise money if you needed it really badly?
 - 1. No, nothing.
 - 2. Yes, land.
 - 3. Yes, house.
 - 4. Yes, jewellery.
 - 5. Yes, tools of trade.
 - 6. Yes, livestock.
 - 7. Yes, other specify

a/ This sequence is designed to look at the resources of individuals. It would take minor modifications to compare the resources of households (you plural).

 \underline{b} / As noted in the text it is necessary to decide what level of loan to ask questions about. The question should either ask about medicines or about tools of trade, but not both.

 \underline{c} / Whether husbands and wives think in terms of lending money to each other will depend upon the culture and also upon the individual.

 \underline{d} / Rather than invent a world currency unit, it seems preferable to look at money equivalents of basic purchases.

e/ Loans come under all kinds of conditions - often the borrowers are exploited because they cannot calculate the costs of weekly interest,
or because they have no choice. If this question is to be asked (perhaps in the expectation that women are likely to be charged higher rates of interest) the interviewers will have to be trained to probe for the necessary information. Actual calculations can be done in the office.

VIII. MEASURES OF WELL-BEING IN OTHER FIELDS

A. Health status and nutritional measures

There is a strictly limited number of areas where worthwhile health and nutritional data on topics relevant to the differences between the sexes can be collected in general surveys without the employment of specially trained investigators.

Compiled after an in-depth review of progress to date, suggestions published by the World Bank on nutrition and health status indicators (Martorell [89]) cover eight areas: anthropometry, birthweight, clinical examination, measures of food and nutrient intake, breastfeeding, biochemistry, illness and community health, and nutrition factors. In the majority of these areas, in order to gain useful information it is necessary to use highly specialized investigators and to make a specific commitment to a specialized health and/or nutrition survey. For this reason, it is much more important to ensure that health and nutrition surveys take full account of possible sex differentials than to attempt to insert a few questions on these topics into general studies designed to collect statistics on the situation of women.

Unfortunately, the record to date of health and nutrition surveys has often proved to be disappointing. Although health data are almost invariably collected by sex, analysis often neglects or ignores the potential for sex differentials (Ware [13]). In the case of nutrition data, information is often collected for households rather than individuals, making it impossible to study differences in the allocation of food resources within the family (Schofield [90]). Given the considerable financial and human resources that are, perforce, devoted to health and nutrition surveys, often over a period of years, it becomes all the more vital that they should fully investigate sex differentials, especially as the data are often already to hand (Van Ginneken and Muller [91]).

There are a few health and nutrition measures that merit consideration for inclusion in general household surveys intended to illuminate the situation of women. These are questions on the following:

(a) Immunizations: "Has she/he had the needle against tetanus, whooping cough, measles and tuberculosis?" The diseases selected will depend upon local conditions, as will the decision whether to limit the question to children under a certain age or to extend it to adults. There is some evidence to suggest that a charge for immunizations is especially likely to provoke a sex differential in their coverage (Ware [13], pp. 57-58);

(b) Illness - days in bed: "Has anyone in the household stayed in bed with an illness during the past month?" If YES "Who?", "How long for?" "What was the illness?" There are some difficulties in interpreting the responses to this question as there may well be sexual differentials in the cultural acceptability of retiring to bed when ill, as in Papua New Guinea (Lewis [92]). Thus the sex with the most days in bed may not be the least healthy;

(c) Illness - medical consultations: "Has anyone in the household taken part in a medical consultation during the past month?" If YES "Who?" "Who was the consultation with?" (i.e. traditional healer, health clinic paramedic, professional physician). "Including any travel costs, how much did the consultation cost?" In the Indian subcontinent it has been shown that the cost of the consultation, the distance travelled and the expertise of the practitioner may all depend upon the sex of the patient (ICDDR [93], Singh <u>et al</u>. [94]);

(d) Breastfeeding: (for children under age 3) "Are you breastfeeding this child?" "Are you giving any other food to the child?" Given that the age and sex of the child should already be known from the household roster, these two simple additional questions should provide an easy measure of possible differentials in feeding patterns. In many traditional cultures boys are said to be breastfed for a longer period than girls (Molnos [95]). Actual data on the proportion of children of a given age in months who are still being breastfed, however, generally do not show evidence of discrimination, possibly because breastmilk does not have to be paid for or taken out of the family's food stock (Chen et al. [96]), hence the additional question on supplemental feeding. There is some evidence that the introduction of other foods is more likely to depend upon the sex of the infant. Anyone intending to focus on sex differentials in the feeding of infants should be aware that there is now a vast literature on the study of breastfeeding (e.g. Bracher and Santow [97]). The Nutrition Unit of the World Health Organization has compiled a practical manual, Studying Weaning (World Health Organization [98]), that could well be consulted by anyone interested in indigenous questionnaire and survey design at the village level since it is addressed to paramedical personnel with no post-secondary education.

Where there is a possibility of going beyond asking questions to actually taking physical measurements there are two obvious choices: (a) anthropometric measures of height, weight and possibly arm circumference and skinfolds; and (b) biochemical blood tests for nutritional anaemia in adults (Martorell [89]). Even height measures alone can give a good indication of who the disadvantaged sub-groups are within a population. Levels of nutritional anaemia provide a good indicator of the special demands placed upon the health of women. In this context it is important to note that, because of their reproductive role, women face health hazards to which men are not exposed.

An Index of Physical and Nutritional Stress has been proposed to measure the wear and tear and physical work of pregnancy and lactation in terms of the time spent in these states. The index is simply calculated by dividing the total number of years that a woman has spent either pregnant or breastfeeding and dividing this by the number of years since menarche. Where detailed pregnancy histories and information on breastfeeding are already being gathered for demographic reasons this index provides a way of using these data to point up the very heavy physical burdens placed upon women by motherhood.

One study has combined this Physical and Nutritional Stress Index with an Index of Economic Responsibility for the Provision on Basic Household Necessities to show the very heavy double burden on many Nigerian women (Harrington [15]). It is unfortunate that proposals for the measurement of living standards should have recommended a study of the interrelationship between maternal nutritional status and birthweight and milk production for women and the study of the relationship between past and present malnutrition in limiting work productivity in physical tasks for men (Martorell [89]). Such a division implies that the physical productivity of women in developing countries is not of concern. Given that women do have to carry head-loads and hoe the fields, account should be taken of their physical capacity to do this work.

In any interpretation of the utilization of health facilities by males and females, measures used in analysis should exclude the impact of women's reproductive roles. Thus, for example, data on hospital-bed days should exclude maternity figures when male/female comparisons are being made. Similarly when clinic utilization is being examined it is often necessary to take into account the fact that many women recorded as attending the clinics are only there to accompany their children. Interpretations of such statistics also need to recognize that one sex may use clinics more because that sex genuinely suffers more illnesses or more severe illnesses or because illness in that sex is viewed more seriously. In the Indian subcontinent, one reason often given for preferring female sterilization to vasectomy, which is a much simpler and less risky operation, is that the woman's health is less vital than the man's (Ware [13]).

Although it would be very useful to be able to get a simple health indicator from a household survey, this is unlikely to be practicable. One alternative is to use a measure of infant or child mortality. The standard techniques for measuring infant mortality and child survival can readily be adapted for comparisons between the sexes. A number of problems, however, remain. Since girls are generally born with a greater resistance than boys, discrimination against them in the first year has to be very marked to show up in infant mortality statistics. Information on child mortality is therefore more revealing but also more difficult to collect and analyse, especially if some female births and deaths are being omitted. The health conditions of adult women are of special interest, but are more difficult to study. European data show that with the decline in mortality women have gained an advantage at all ages, but the age group where their earlier disadvantage persisted longest was in the late teens, apparently because of the impact of tuberculosis and discriminatory feeding patterns. One possible way of looking at sex differentials in adult mortality would be to ask adults about the survival of their siblings, asking separately about deaths in childhood and in adulthood and even, possibly, about deaths in childbearing. Adults may not know about some siblings who were born before them and died in early childhood, but they should normally be aware of deaths of adult siblings. A possible question sequence is given below, in example 11. The use of such a question has an in-built bias towards the collection of data on large families with numerous siblings, but this should not affect the relative accuracy of the data for the two sexes and thus the information on sex differentials would be unaffected.

Example 11. Illustrative questions on sibling mortality

1. How many sisters and brothers have you had altogether, including any who have died?

..... sisters brothers died young, sex not known

2. How many sisters and brothers do you have that are still alive? a/

Example 11 (continued)

.....brothers

IF ANY DEATHS: Did they die in childhood (before age 15) or when they were already adults?

(Interviewer to fill in numbers from responses, if necessary using tactful probing.)

..... sisters died in childhood.

..... sisters died as adults.

(..... sisters died in childbirth). b/

..... brothers died in childhood.

..... died as adults.

(..... brothers died in war/revolution). c/

INTERVIEWER CHECK THAT NUMBERS OF CHILDREN BORN = DEATHS PLUS SURVIVORS.

a/ It would be neater to ask for deaths but this is less tactful.

 \underline{b} / The category will only be worth including where such mortality is relatively common.

c/ Depending upon local conditions.

B. Shelter and related services

As a general rule it might be expected that housing quality would be similar for all the members of one household. Thus, for example, although the number of household members sharing a room may vary by generation and/or by sex, it would be expected that matters such as the quality of the walls and roofing and access to sanitation would be the same for all household members. Although this is the most common pattern, there are nevertheless situations where there is variation even in these basic matters.

Women's access to sanitary facilities may be limited by purdah restrictions keeping them within the walls of the compound. Equally, where market production within the home is commonplace it may be that rooms in which men are working at tasks, such as hand-loom weaving, are better lit and otherwise more commodious than those where women are engaged in the same work. Alternatively, it may be that while the women's rooms are cluttered with the tools of the home trade, the men's rooms are more spacious and capable of accommodating visitors who drop in for a chat. Kitchens, unknown territory to men while women spend many hours a day there, may pose special health hazards owing to the density of the smoke from cooking fires and the lack of adequate ventilation. Water supply, again, might appear to be an amenity common to the household as a whole, yet if it has to be fetched at a distance this fact may have a very different impact upon the members of the household, most frequently women and children, who actually have to carry it. Equally, because of their household responsibilities women are likely to be much more heavily affected than men by a chronically insufficient water supply that aggravates the problems of maintaining cleanliness and a steady stream of cooked meals.

Even if information is only collected on the housing and related services available to the household as a whole it is still possible to compare households headed by women and those headed by men. The number of persons per room was a standard measure of the incidence of poverty in ninteenth century European social surveys. Although it has since been neglected it is still a good measure of urban poverty. In rural areas choice factors appear to play a larger role and the use of private outdoor spaces, such as courtyards, may be as significant as that of enclosed rooms.

The simplest contrast will be that between male and female one-person households. In this context it is important to remember those individuals whose poverty is such that they do not sleep in rooms at all. The Ghanaian population census of 1971 found that men were markedly more likely than women to be sleeping out in such places as under permanent stalls in the market or behind billboards. Where the contrast is between multiperson households headed by men and those headed by women there are still many clear contrasts that can be drawn irrespective of the relative sizes of the households. Comparing maleand female-headed households it can be asked: Which is more likely to own the structure in which they are living? Which structures are more likely to be built of superior building materials? to have access to piped water? to electricity? to reticulated sewerage? Without any indication of the income of the households involved, such measures give a good indication of their standard of living. Another advantage of questions on housing is that enumerators can usually be trained to estimate the value of the dwelling with sufficient accuracy to provide an independent indication of the relative wealth of the household. Such a measure is clearly influenced by the expenditure choices of the household's decision makers, but it can still serve as a very valuable indicator.

A sequence of questions on shelter and related services is given below in example 12.

Example 12. Illustrative questions on shelter and related services

A. Questions for respondent (one respondent per household)

1. How many rooms do you have here?

.

- 2. What is your source of water supply (in the dry season)?
 - 1. Piped water in the dwelling.
 - 2. Piped water for the compound/community.
 - 3. Private well.

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Example 12 (continued)

- 4. Public well.
 - 5. Pond.
 - 6. River.
 - 7. Other (specify)
- 3. How far away is this?
 - 1. In dewelling.
 - 2. In courtyard.
 - 3. In village.
 - 4. Other within 15 minutes walk.
 - 5. 15-29 minutes walk.
 - 6. 30-59 minutes walk.
 - 7. 60-119 minutes walk.
 - 8. Two hours or more away.
 - 9. Other (specify)
- 4. Who usually fetches the water?

(Give person number from household chart.) (If more than one person write in explanation here

- 5. What form of sanitation (use local term) do you have?
 - 1. Household water closet.
 - 2. Latrine in dwelling.
 - 3. Shared water closet.
 - 4. Shared latrine in compound.
 - 5. Public latrine.
 - 6. No special facilities/bush.
 - 7. Other (specify)

Example 12 (continued)

6. Do you have electricity?

1. Yes.

2. No, none available.

3. No, cannot afford it.

7. Do you own or rent this dwelling?

1. Own.

2. Not own but is family property.

3. Rent.

4. Dwelling comes with the job.

8. If rented: How much rent do you pay per week?

9. What fuel do you use for cooking? (Codes for local conditions.)

B. For the interviewer to fill in

- Materials of the walls. (Codes to depend on local conditions.)
- Material of the roof. (Codes to depend on local conditions.)
- 3. Interviewer's estimate of the sale value of the dwelling.

IX. MIGRATION

The priority given to devoting scarce resources to asking questions on migration will necessarily depend on local conditions. It is important, however, to recognize that migration has a major impact on women whether the men or the women move, or whether families move. Thus there are three circumstances in which migration has a major impact upon the situation of women. One is where women themselves are heavily involved in migration and move independently of their families. Another is where male outmigration has reached a level such as to have a significant effect upon those left behind who, for example, have to take on unfamiliar agricultural tasks to ensure that food production is maintained. Finally, there is the pattern where most movement is by family groups. Here it must be recognized that in moving women are transported into a new context where they are obliged by the circumstances of the migration to take up new roles.

A. Women as independent migrants

Until recently, female migration had been largely ignored (Ware [13]). This neglect had often been the consequence of an assumption that women were only "associate" migrants moving in order to accompany a migrant father or husband. Once this assumption was examined with actual data it became evident that women did move as individuals and that female migration was distinct from the male phenomenon. The available data now show that rural-urban migration of young women is widespread. Indeed, in both Latin America and parts of Asia, such as the Republic of Korea and the Philippines, women actually form the majority of migrants in the peak age group for movement, that is, aged 15-24. Elsewhere, as in Indonesia and Thailand, the female majority is restricted to ages 15-19 but female migration is still a very important feature affecting both rural and urban life (Fawcett et al. [99]). In Latin America there is also evidence of rural-urban migration by older women, which produces a late peak. This is presumably the consequence of widows joining their children in town after widowhood, but further investigation is needed to establish whether this is so and whether it is also a common practice elsewhere.

There are at least six reasons for a special interest in the rural-urban migration of women. First, one category of women that may be missed altogether in the enumeration of the population is that of individual women who have migrated by themselves. As domestic servants they may be missed because they are not counted as members of their employers' households and they are not counted as single-person households either. As prostitutes, bar-girls and the like, working in occupations that are certainly not respectable and may be illegal, they also tend to be overlooked (Hantrakul [100]). As factory workers living in dormitories and working in shifts they may be missed because they are classified as living in institutions or because interviewers find it difficult to get access to them (Mather [101]).

Secondly, under current social arrangments women are generally not interchangeable with men as a human resource. Women play different economic roles both in the urban centres that are their destination and in the rural areas that they leave behind. It is important to know how far women's increasing rural-urban mobility is a consequence of improving opportunities in the urban areas or of a lack of opportunities in the rural areas. Thirdly, the causes of migration are not necessarily the same for both sexes and it is certainly true that the cultural factors influencing independent movement are very different. In general the expectation is that women should stay with their families. Where this expectation is belied this may be because of special need, because of a failure to meet cultural expectations (for example by becoming pregnant outside of marriage) or because the expectation itself has been modified as a consequence of the effect of education or the availability of factory work for young girls. In any case, the causes of migration are different for the two sexes and predictions and social planning will be more accurate if carried out independently for the two sexes.

Fourthly, differences in causes are also matched by differences in consequences. If young women are moving to the towns by themselves then there will be special needs for accommodation for them. Similarly the migration of women with children who are separated from their relatives implies special needs for child care and the like.

Fifthly, independent migration by young women is likely to result in significant changes in family structure and in the modernization of family patterns. Population growth itself may be affected as young women delay marriage and then wish to keep their options open to return to the work-force after bearing a few children.

Sixthly, awareness of independent female migration is important as a part of generally improved social accounting (Fawcett <u>et al</u>. [99]). Social scientists were slow to appreciate the growth of independent female migration, they did not expect to find this change and therefore they did not collect the relevant data. Where Governments wish to control or influence migration streams, the policy implications of male and female migration streams will almost certainly be very different.

B. Marriage migration

Marriage migration is a special form of independent female migration where women move to a new area at the time of marriage. It is a form of migration that has been largely ignored to the extent that the riddle could be posed: "When is a migrant not a migrant?" - "When the migrant is a woman getting married." Yet there are areas of the world, as in parts of northern India, where all women migrate at marriage (Ferree and Gugler [102]). Over much of northern India there are only 29 men for every 100 women in the rural to rural migration streams. While most of these women migrants are marriage migrants some are also migratory workers harvesting crops, such as sugar cane, tobacco and cotton, or building roads and dams (Singh [103]). Once again this finding stresses the importance of keeping an open mind and collecting data in such a way that where women do not fit stereotypes they will not be forced into them by the nature of the questions, the interviewers' expectations or the coding.

C. Women left behind when men migrate

The best known instances where large numbers of women are left behind while their husbands migrate elsewhere refer to southern Africa, where the men go to work in the mines and the women are left with much of the responsibility for agricultural production (Mueller [84]). Elsewhere the proportion of households affected may be less dramatic but the issues are the same. Here it is vital to be able to link information on male outmigration to the impact on the household economy in the absence of at least one adult male worker. The households thus deprived are likely to form a special case of the woman-headed household unless some form of regrouping takes place (an example of regrouping would be where a sister and a brother combine households).

D. Asking questions on migration

In asking questions on migration in a general survey where time is severely limited, it is vital to have a clear idea of the reasons for asking questions on the topic. There is a tendency to think of a migrant as someone who only moves once, say from the village where they were born into a big city. Where people have only moved once then it is possible to have a relatively simple questionnaire sequence. Given the possibility of multiple moves and a limited number of questions, however, it becomes necessary to limit the scope of the questions in some way.

In the case of a survey with a focus on the situation of women the most relevant aspects of migration might be: (a) the relative mobility of the two sexes; (b) the extent to which women and men move as individuals rather than as members of family groups; and (c) the extent to which married women become household heads as a consequence of the migration of their husbands and the roles subsequently played by the wives.

1. Defining the migrant group

A first stage in examining the relative mobility of the sexes should be to define who are the migrants. Those included in the migrant group will be:

 (a) Anyone who now lives in a different place than or more than x kilometres from their birthplace (the distance will depend upon local conditions);

(b) Anyone currently living at or near their birthplace who has ever lived more than x kilometres from it for more than y months (again the time limit will depend upon local conditions - 12 months would be a reasonable cut-off);

(c) Anyone who regularly commutes over more than x kilometres. Such persons are excluded from group (b) because they do not spend more than y months away from home at any one time, but rather are circular migrants constantly coming and going between two residences;

(d) Persons who are not resident in the survey households but are regarded as members of them because they continue to send back remittances, visit for major religious festivals and the like. Since it is advocated that the survey use a strict definition of household membership, excluding persons who have been away for two months or more, these persons will not be regarded as household members, but there are a number of circumstances in which it will still be important to gather a basic minimum of information on them. An obvious example would be where a female household head's husband falls into this category. For clarity, it may be convenient to call this category "household associates" since they are not members but are still closely linked to the economy of the household. For most purposes persons who come and go without participating in the household economy can be left out of the survey. If it is the husband/father who is in this position, however, this information will be useful.

Information will normally be available on persons in groups (a), (b) and (c) who live in the households surveyed. Persons in group (d) present some interesting features. If they are found in the households where they now live they will appear to be members of group (a) and their additional membership of group (d) may not be apparent. To find that they belong to group (d) will require some additional questions, for example, asking all currently married persons where their spouses are if they are not resident in the same household and asking all households not only whether they receive any remittances but also whether they send any to other households.

2. Defining the move

Where migrants have only moved once then the question sequence can be relatively simple. Where there have been several moves and it is necessary to limit the number of questions then the solution may have to be to ask about only one selected move. The choice may be the first move, the first move from one zone to another (e.g. the first rural-urban move), the most recent move, the longest move; the decision will depend upon local conditions and the reasons for asking questions on migration.

3. Lone or group movement

There is a common assumption that women, as compared to men, are more likely to move as members of a family group and less likely to make moves by themselves. This assumption increasingly needs to be tested. Some researchers appear to have assumed that information on the individual's marital status at the time of the move is sufficient indication as to whether the move was made alone or in company but this is not a certain indicator. Partners to a marriage may move at different times and single persons may travel with friends or relatives from outside the immediate family circle. Without going into the matter in great detail it would certainly be of interest to ask all adults the furthest distance (in kilometres or hours) that they have ever travelled (a) in company; and (b) alone.

4. Characteristics at the time of the move

Marital status is only one example of the characteristics of the respondent at the time of the move that are of interest. Other possible questions would relate to the respondent's age, education, occupation prior to the move, and occupation immediately following the move. It is increasingly being understood that a rural-urban move that improves the employment opportunities of the male partner to a marriage may deprive the female partner of her chance of earning a livelihood independently or participating in household production for the market.

5. Reasons for the move

In order to avoid stereotyping in responses to a question on the reasons for migration it may be helpful to use a question in the form where the interviewer actually reads out a list of possible reasons and stops at the first point where the respondent gives a positive answer (see example 13). Such a list should be carefully ordered to reflect progression through the life-cycle, but with the economic motivations being presented early on in the listing. Thus, women would only be presented with alternatives relating to accompanying other family members after other options have been canvassed. Thus, a girl may have moved to the town with her parents, but the reason for her parents' move may in turn have been to improve the educational opportunities for their children. It is therefore reasonable to raise the option relating to educational reasons before that of family reasons.

In any case it should not be taken as a forgone conclusion that children move with their parents. They may be sent away to stay with relatives to improve their education or returned to the village because accommodation in town is too expensive. Equally, wives and husbands may not move together for reasons of economy or family ties, such as the need to stay with aged parents. In some instances the separation is essentially involuntary because there is no possibility of the husband being able to take his wife and children with him or because the woman has a live-in domestic position that cuts her off from her family.

Clearly it is not possible to say how many or which questions on migration are appropriate without some knowledge of the local conditions and the volume and nature of migration streams. At an absolute minimum a question on birthplace for all adults in the survey should be regarded as essential together with a question on possible associate members of the household (that is, relating to the flow of remittances) to clarify the boundaries of the household economy.

Example 13. Illustrative questions on migration

- Where were you born? (Write in)
 Was this:
 - 1. In the country.
 - 2. A village.
 - 3. A small town.
 - 4. A large town.
 - 5. The capital city.
- 2. How far away is this?
 - 1. Born there.
 - 2. Born in another country (whatever the distance).
 - 3. Born within 5 kms.
 - 4. Born 5-9 kms away.
 - 5. Born 10-49 kms away.

Example 13 (continued)

- 6. Born 50-99 kms away.
- 7. Born 100-199 kms away.
- 8. Born 200-499 kms away.
- 9. Born 500 kms away.
- 3. How long (in total) have you spent living away from here?
 - 1. Less than 6 months.
 - 2. 6-11 months.
 - 3. 1-2 years.
 - 4. 3-4 years.
 - 5. 5-9 years.
 - 6. 10-14 years.
 - 7. 20-24 years.
 - 8. 25-29 years.
 - 9. 30+ years.

4. When you first moved (for 6+ months) how old were you?

- 1. Under 5.
- 2. 5-9 years.
- 3. 10-14 years.
- 4. 15-19 years.
- 5. 20-24 years.
- 6. 25-29 years.
- 7. 30+ years.

5. Were you married, widowed or what at that time?

- 1. Not yet married.
- 2. Not married but had child(ren). a/
- 3. Married.

Example 13 (continued)

- 4. Separated.
- 5. Divorced.
- 6. Widowed.
- 6. What was the reason for the move?
 - 1. Education.
 - 2. In search of work.
 - 3. To a job already found.
 - 4. For military service.
 - 5. To see the world.
 - 6. To get married/at marriage.
 - 7. To go with parents/older relatives.
 - 8. To go with spouse.
 - 9. Widowhood.
 - 10. Other: (specify)
- What is the farthest distance you have ever travelled (a) by yourself; (b) with other people going with you?
 - 1. Less than one hour. b/
 - 2. 1-3 hours.
 - 3. 4-8 hours.
 - 4. 9-14 hours.
 - 5. 15-23 hours.
 - 6. 1-6 days.
 - 7. A week or more.

 \underline{a} / This is a good example of a code whose applicability would depend on local conditions.

 \underline{b} / This sequence gives examples of codes measuring distance in kilometres and in terms of the time taken to travel the distance. In a single survey it would usually be helpful to consistently use one form or the other.

PART THREE TABULATION AND ANALYSIS



Example 14 (continued)

5. Chief source of support of household. a/

(Codes: 1. Subsistence agriculture.

- 2. Cash agriculture.
- 3. Combination of cash and subsistence agriculture.
- 4. Petty trading.
- 5. Craftwork.
- 6. Other small business.
- 7. Wage of household head.
- 8. Other wage(s).
- 9. Remittances, other cash transfers from outside the household.
- 10. Begging.
- 11. Prostitution, other semi-licit activities.
- 12. Other (specify)
- 6. Number of absent members of household.
- 7. Number of generations in household.
- Number of members of household who are not members of the nuclear family.
- 9. Landownership. a/
- 10. Construction of dwelling. a/
- 11. Proportion of school-age children in school.

a/ These items need a special question; other items are based on calculations.

Check-list of the advantages of establishing the tabulation plan before going into the field with the survey

- 1. Maximizing the efficiency of the sample design.
- 2. Improving questionnaire design.
- Ensuring that the planners and others who will use the data are involved at an early stage and, to the greatest extent possible, get the data they need.
- Improving official support for the survey since it is clear what results it should yield.

- 5. Allowing the often highly time-consuming process of designing the programmes for editing and analysis to get underway as soon as possible, thus improving the timeliness of the appearance of the eventual results.
- 6. Raising the prospects of the survey being completed and the results published because of the extent of pre-preparation and early elimination of possible bottle-necks. Another factor is the increased number of people and organizations consulted who have a prior investment in the rapid appearance of the data.
- 7. Assisting in the overall costing of the survey and the avoidance of unforeseen overruns.

Yet another reason for planning the tabulation and analysis in advance is that the type of processing and tabulation is likely to have significant implications for the costing. Many surveys under-budget on these items with the consequence that valuable data, gathered with great effort and expense, are under-utilized and the process of surveying itself comes into disrepute because policy makers and planners do not get full value from the data. At a purely practical level, anyone seeking additional support for a survey will find it extremely helpful to be able to show a draft set of tabulation formats to indicate the range of questions that the survey data should be able to answer.

In order to reinforce the importance of devoting considerable attention to the design of the tabulation and analysis plan before moving into the field, the check-list above sets out the principal advantages of this ordering of the proceedings. Ideally, the pre-test findings should be tabulated and analysed before moving on to the full field survey. In the real world and in a statistical system with limited resources, especially in the area of skilled staff, the tabulation and analysis of the pre-test data are likely to be extremely limited and to depend very much on the immediate experiences of those directly involved in the pre-test. It is always necessary to weigh the benefits to be gained from a full analysis of the pre-test against the delays involved and even the possible risk that the main survey may be cancelled or diverted to another purpose.

This discussion is oriented towards the situation where the statistical office is responsible for the collection of the data and for some preliminary analysis but interpretation of the meaning of the data is largely to be left to other agencies. In a situation where the survey and all levels of analysis are to be carried out within one organization, it would be more a question of the setting out of hypotheses. Even in the case of the statistical office being chiefly concerned with data collection and basic analysis, there should be some implicit hypotheses to guide the formulation of the questions and the analysis. Information is gathered on membership of various categories and sub-groups because it is believed that there is a link between such membership and behaviour. It is always helpful to ensure that such implicit assumptions are made explicit if only because they will have implications for matters such as sample design. Thus, for example, if ethnic group membership is believed to be a highly significant determinant of behavioural patterns, then the sample design will need to take this into account. One example of what could be a vital hypothesis of this kind relates to the differences between urban and rural communities. It is possible that, in situations where there are marked divisions between urban and rural behavioural patterns, a decision might be made to conduct different surveys in the two types of area. The decision might be to use a common core questionnaire in both cases but to have quite different sections dealing with economic activities and utilization of public facilities. Equally the decision might be that a one-round survey would be sufficient in the urban areas, but that several rounds would be necessary to pick up seasonal changes in rural activity patterns (Anker [27]). Clearly, such major decisions need to be based upon a very clear appreciation of why the data are needed and how they are likely to be used. In formulating the considerations to be taken into account in making these decisions an analysis plan is of great assistance.

B. The sex ratio

In the absence of major sexually biased migration streams involving transfers of population beyond the area covered by the survey, it is to be expected that the sample will contain approximately equal numbers of females and males. Sex ratios are often examined as a means of evaluating the quality of the data to hand, and in this instance the sex ratio data has a special interest of its own. One of the first tabulations to run would be that for the whole sample cross-classified by age and sex. The significance of marked differences in numbers between the sexes depends upon the overall sex balance and the age groups where the differences are found. The sex ratio at birth is expected to be in the range of between 108 to 103 males to every 100 females. If the excess of male infants is markedly greater than this then the explanation is likely to be either a marked excess of female mortality in the first year or a simple failure to record female infants as scrupulously as the males or, most likely, a combination of the two factors [105]. A further possible cause would be a sex differential in the recording of the ages of young children. Such cultural perceptions can cause serious problems at older ages, but are unlikely to Offect infants.

For older age groups it is helpful to look at age and marital status and sex together, bearing in mind that age misstatement is often linked to assumptions on appropriate behaviour. Thus, young women who are married are likely to be recorded as older than their age peers who have remained unmarried. One simple way of checking on the relative quality of the data for both sexes is to look at age heaping, that is, the proportion of ages recorded as ending in 0 or 5. The more the proportion of such ages exceeds 0.2, the more inaccurate the data. If there are many more women than men who have such ages clearly disproportionately based upon estimates, then the data on women are clearly of poorer quality than those on men. In the case of age data there may be relatively little that can be done about this since it may genuinely be the case that women are less likely than men to know their exact ages.

Demographers have necessarily devoted a great deal of attention to sex differentials in age misstatement (Shryock and Siegal [19]). The object here is not to go over that work, but to point to the fact that such data and such analyses can be used not only for demographic ends but also for the information that they reveal on the situation of women in itself. As already argued in chapter III there can be no more telling indicator of the status of women relative to that of men than an excess of female mortality that runs counter to women's natural biological advantage (Ware [13]). Looking at data on sex ratios by age yields information both on the quality of the data overall and on possible mortality disadvantages faced by females.

To give but one example of what can be done, in surveys with an interest in fertility measurement it is common to ask women the number of children that they have ever borne and the number surviving. If this questioning asks separately for male and female births and survivals, then not only is the overall quality of the data likely to be improved, but also it becomes possible to look at possible changes in sex differentials in mortality over time. In examining the mothers' responses by age it is important to look for variations in the sex ratio of children ever born since it is held that older women are more likely to forget female children that have died. It is still possible, however, to correct for this factor by assuming a near constant sex ratio of children at birth irrespective of the age of the mother.

C. Illustrative tabulation of basic characteristics by sex

The first stage of analysis will involve the tabulation of basic characteristics by sex. Since sex is a simple characteristic that only divides into two categories it may well be worth combining sex with another variable such as age or marital status so as to gain more information from these basic tabulations. Once these tabulations have been produced then a great deal of information on the absolute and comparative situation of women should already be available. In areas where census data are not available this will probably be the first opportunity to examine many features of women's situation. Where there are census data it should be possible to examine progress or change since the census. On many topics there will be no direct opportunity for comparison with census data either because the topic is not covered by the census (e.g. landownership, time-use membership of organizations), or becaue the treatment in the survey will have been much more intensive (e.g. economic activity, income).

While these basic tabulations (see example 15 for a sample listing) will by themselves yield a wealth of information, they will also raise a multitude of further questions. Once it is clear how women's situation differs from that of men, then the next question that arises is why this should be so. To take one of the most obvious examples: women's incomes are almost invariably lower than those of men; how far can the difference be explained by differences between the measured characteristics of the two sexes? In other words, how great is the difference where other characteristics are held constant. For example, if education and occupation are the same, how great are the differences then? Obviously, the policy implications are very different if women's poverty is associated with exclusion from the labour market rather than with lower incomes from the same levels of participation. In actuality, the situation will rarely be one of a single causative factor. It is much more common for women to experience a cumulative series of disadvantages: lower participation rates; concentration in less remunerative occupations; lower remuneration for the same work; lesser access to capital and other resources; greater unavoidable outlays; and so on. In this context it may be useful to establish a basic profile of the so-called average man and woman. This is especially important where the characteristics of the average do not match those of the common stereotype to be found in the minds of planners and the public. Example 16 gives a hypothetical example.

Example 15. Basic tabulations of individual characteristics

Sex by age index

Characteristic

Code

1.	Total females	Marital status			
2.	Total males	Parental status (none, age of youngest child			
3.	Females under 15	in 5-year groupings to 19, then 10-year			
4.	Males under 15	groupings)			
5.	Females 15-19	Grandparental status (none, age of oldest			
6.	Males 15-19	grandchild in 5-year groupings to 20+)			
7.	Females 20-24	Number of children ever born			
8.	Males 20-24	Number of surviving children			
9.	Females 25-29				
10.	Males 25-29	Years of education			
11.	Females 30-39	Highest level of education reached			
12.	Males 30-39	Literacy			
13.	Females 40-49				
14.	Males 40-49	Occupation			
15.	Females 50-59	Hours per week in agriculture			
16.	Males 50-59	Hours per week in wage employment			
17.	Females 60+	Hours per week in other economic activity			
18.	Males 60+	Hours per week in household maintenance			
		Employment status			

Cash income Indebtedness Access to credit Ownership of land Ownership of watch <u>a</u>/

Ownership of bicycle $\underline{a}/$ Total value of clothes owned $\underline{a}/$ Principal source of income

Birthplace Migrant status Ethnic group $\underline{b}/$ Time since most recent medical consultation

 \underline{a} / A later goal would be the development of an index of ownership giving a numerical score for total ownership of personal property.

b/ The applicability of ethnic group and other social characteristics such as religion would depend upon local conditions. Example 16. Indicators on "the average woman and man in x province"

The average woman	The average man
Is aged 30.4	Is aged 26.7
Has 3.4 years of schooling (55% have no formal education)	Has 6.2 years of schooling (30% have no formal education)
Was married at age 15.6	Married at age 22.1
Was 17.6 at first birth	Was 24.1 at first birth
Works in agriculture (66%)	Works in agriculture (51%)
Spends 4 hours per day in the fields	Spends 6 hours per day in the fields
Spends 2 hours per day collecting water	Spends 0 hours per day collecting water
Spends 2.3 hours per day in household maintenance	Spends 0.4 hours per day in household maintenance
Gets 7 hours sleep	Gets 8.5 hours sleep

It is also very important that the basic tabulations reveal the extent to which women and men inhabit different worlds, for example, that 50 per cent of women but only 20 per cent of men have never been to school, or that 20 per cent of men as compared with fully 70 per cent of women have no personal access to a cash income. Even the format in which the tabulations are printed can help to stress the difference between total exclusion from a resource such as education, wage employment, landownership, and the like and participation albeit at a lower level. Some of these examples of exclusion show just how important it is that the questions asked in the survey should be appropriate to local conditions. Thus, for example, in an area where women cannot hold a legal title to land, questions might also usefully deal with rights to use the land or with holdings of other major items of property. As discussed below, one essential focus of analysis is upon sex differentials in access to resources.

D. The life-cycle approach

In terms of examining the contrast between the experiences of females and males one obvious framework is the life cycle (Ware [106]). The questionnaire needs to be so constructed that it is possible to establish the average age of females and males at various turning points during their lives. Demographic events such as marriage, parenthood and widowhood are obvious candidates for such treatment, but it should also be extended to matters such as educational experience and participation in the labour force.

Example 17 shows a life-cycle line for males and females in an imaginary population. It will be noted that a percentage figure is also shown for the

proportion of the population that never experience the event in question. In calculating these percentages it is important to recognize that the total population is not yet at risk. Rather it is necessary to nominate a cut-off age beyond which the event is not going to occur. Thus, for example, in calculating the proportion that never goes to school, 15 could be taken as the age beyond which entry into school ceases (leaving consideration of adult education to one side). Similarly with the first birth, age 50 would certainly be a reasonable cut-off point for women though not for men.

Event	Female (Average	Male age)	Female (Percenta	<u>Male</u> age)
Enter school	6	5	50	30
Leave school	12	14	50	30
Start full-time work	13	15	8	4
First marriage	16	19	5	8
Birth of first child	18	21	7	10
First divorce	27	29	78	78
Birth of last child (where more than one)	37	43	11	13
First becoming a grandparent	35	39	20	28
Widowhood	48	50	65	23
Death b/	53	51	65	23

Example 17. Life-cycle events a/

a/ This is an invented example.

 \underline{b} / Information on age at death will not be directly available from the household survey.

In calculating the average ages at which some events occur there are truncation effects associated with the presence of persons who experience these events at a very early age without the counter-balancing presence of persons to whom they occur at a very late age and who still appear in the category of those for whom the event has never occurred. In a sample covering all the older age groups this is not a serious problem. It is likely, however, that there will be some analysis of the form of the life-cycle line for different age groups to see, for example, if the age at the first birth is rising, and in such instances it is important to bear the truncation effects in mind.

E. Reproductive roles and child-rearing

One obvious difference between the sexes in all cultures concerns their biological roles in reproduction. Indeed it has often been assumed that this difference alone is sufficient explanation for many other differences. A wide range of demographic surveys have explored women's reproductive roles in great detail while largely ignoring the male contribution. Standard fertility surveys are usually confined to female respondents. While such surveys have incidentally revealed a great deal of useful information on the situation of women in general they have done surprisingly little to illuminate the impact of childbearing upon women's lives in agricultural societies (Harrington [15]).

One way of looking at the impact of childbearing upon women's lives is to contrast women with children with childless women. Many surveys in developing countries, however, find only a very small proportion of childless women among those past their early twenties (5% or less). In part this reflects the minimal levels of voluntary childlessness, but these proportions are, indeed, so low as to suggest that the populations are robustly healthy or that some childless women are being omitted from the record. A number of factors may be involved: adopted or fostered children may be being recorded as biological children or childless women may be omitted from samples confined to the currently married since they have been divorced because of their childlessness. After looking at the data on childlessness it will be possible to decide whether the numbers justify a separate examination of the situation of childless women. Among older women, the situation of the childless widow may be particularly acute, but in that case the data used should relate to surviving children rather than to children ever born.

While childbearing is biologically limited to women, the attribution of the role of childrearing is culturally determined. The fact that only a few surveys have looked at the distribution of childcare responsibilities is evidence of the way in which issues considered to be women's concerns have been excluded from statisticians' priorities. With adequate survey data on childcare it will be possible to see the extent to which both mothers caring for their own children and young women caring for their siblings are restricted in their roles, whether in participation in the economy or in gaining access to education. In this context as in many others it may be worthwhile to look at the anomalous case: Who cares for children in households where their mothers are absent, usually as a result of early death? In some cultures a father without a mother-substitute to care for his children is at such a disadvantage that almost all widowers remarry, sometimes within days of their being widowed. It is also important to examine the available data on childcare patterns in female-headed households. Data on the situation of women who are mothers are important both for their own sake and for what they show about the situation of the children.

F. Education and changes over time

Looking at the life-cycle approach helps to stress the fact that a single survey can only provide a limited amount of information on developments through time. There are only some areas in which it will be possible to test the validity of statements such as: "Differences between women and men are now much less marked than they used to be in the past". The earlier in the life cycle an event occurs or a characteristic of an individual becomes fixed the easier it is to compare younger and older generations. For adults, who are beyond the age where regular education is normally completed, a tabulation of number of years of schooling or of highest level of education attained cross-classified by age will show the extent to which sex differentials in educational experience have declined in recent years. A tabulation of labourforce participation cross-classified by age, however, will not necessarily reflect trends over time. Rather it may be picking up life-cycle effects, such as the fact that women are withdrawing from the labour force at a younger age than men. (This is assuming that the labour-force data are not being biased by a tendency to report old men as working as "managers" while old women, who are equally active or inactive, are reported as being "too old to work".)

In many countries primary education for the majority of the population has arrived within the present generation. This can often mean that comparisons between young adults and older adults are also comparisons between mainly literate and illiterate groups. This contrast is often particularly acute when comparing two generations of women. It may often be difficult to find a group of educated older women that is large enough not to be excessively affected by random error. Where there is an interest in comparing the two generations it may be necessary to compare like with like by restricting the comparison to women without experience of regular education. Where this is done it often becomes evident that the apparent greater "conservatism" or "traditionalism" of the older generation is equally widespread among young illiterates. Conversely, older educated women may appear as leaders in the adoption of new behaviour patterns.

In many contexts education is a crucial determinant of differences in behaviour. In contexts where the proportion of educated males is significantly greater than that of educated females it can be vital to distinguish between differentials that remain after controlling for educational differences and those that largely disappear. While there are only limited quantifiable indications as to why education should have such a dramatic impact, it is clear that it is one of the major factors and should not be neglected. In contexts where illiteracy is still the fate of the majority of young adult women it may be well worth constructing a separate set of tabulations confined to the illiterate. If these tables include many more women than men, this fact in itself is highly significant and worth stressing.

G. Rural-urban contrasts

Where a single survey covers both rural and urban areas it is almost always important to distinguish between the two, especially where the urban data essentially refer to a major metropolitan area where conditions are very different from those in the still traditional rural areas. Policy planning for the rural and urban areas also generally proceeds along separate paths. Wherever data are available that will allow planners to focus on the particular urban or rural areas of concern it is important that these data should be made available so as to facilitate effective planning from an appropriate data base. Depending upon the local context it may still be necessary to look at some inter-linkages between urban and rural areas. Examples would include the extent to which urban dwellers actually participate in agriculture or maintain land rights and the extent of within-family transfers of goods and cash across rural-urban boundaries.

The situation of rural-urban migrants is of special interest as they span the two zones. Women may be involved in a wide range of roles, for example as independent migrants, as newly created household heads left behind in the rural areas on the departure of the male head, or even as members of a household that has migrated as a whole to the urban area, but find that the impact of migration upon male and female household members is very different. The essential point is that the analysis should examine both sides of the equation and give equal attention to the situation of men and women. Studies of the experiences of migrants are commonplace; studies of the experiences of those who stay behind are much harder to find. Yet staying behind is not necessarily a passive activity. The agricultural work of the women in the rural areas may be necessary to support the men while they are finding employment in the town, and even after employment is secured it may be that the women's agricultural work is still vital to feed the children or provide for their education.

H. Group differentials

Differences between men and women are unlikely to be constant right across society. Indeed, given the importance of cultural factors in determining such differentials it is to be expected that individual cultural groups will be found to have their own pattern of sex differentials in various areas. The most relevant groupings to examine will depend upon local circumstances, but possible topics for further examination might include religious, ethnic and social status groups and the sex differentials within them. To give an example, it has been argued that educational differentials between the sexes are most extreme where formal education is the prerogative of a small minority. It is possible to test this hypothesis within a country by looking at the overall level of education and the difference between the sexes for various groups such as populations at different levels of urbanization or ethnic groups with historical differences in their eagerness of approach to regular education. Another example of the benefits of looking at sex differentials within groups would be an examination of the relative poverty of female-headed households in areas with different traditions concerning women's access to land ownership through inheritance and other means.

In many cases the statistical office responsible for the survey will not have responsibility for the interpretation of cultural differentials. Its important responsibility is to ensure that the basic tabulations are available for interpretation by others. This responsibility is especially crucial in terms of development planning. National level data may be quite misleading for many planning purposes. Frequently the most urgent need for planners is to have adequate regional-level data. How far this is possible will depend upon the sample size and sampling design. Planners may also need data for particular ethnic or religious groups in those societies where such differentials are highly significant.

Much development planning is aimed at meeting the needs of the poor, or indeed, of the poorest of the poor. One purpose of the survey will be to investigate the incidence and the nature of female poverty. It is also important, however, to have data on the characteristics of groups at different levels of poverty. The question arises, for example, as to the economic role of women in the poorest households: whether such women are unable to find paid work, or whether the work that they can find is so poorly remunerated that they cannot escape from debt and poverty. Currently there is a general acceptance that households without an adult male are especially exposed to poverty, but there has been little examination of the position of households with an adult male and adult female, but where the male is unemployed or receiving little in the way of economic returns for his work and it is the woman of the household who is the chief economic provider.

I. Characteristics of households

The examples cited above demonstrate the importance of having data on households as well as on individuals. Provided that there is a clear understanding of the process, the creation of household variables involves few special problems. Example 14 above lists some possible household variables. Footnoted items require that a specific question be asked about the household as a whole. The remaining variables can be constructed in the office from data available on the characteristics of individual household members. (In practice the interviewer should fill in these variables when editing the questionnaire. This ensures that none of the information necessary to construct them is irreparably missing from the questionnaire.)

Once the household variables are available the question of how to bring sex differences into the analysis inevitably arises. The simplest solution is to compare female-headed households with male-headed households. While such analysis is certainly important it is also somewhat limited and, even where female-headed households are common, nevertheless leaves the majority of women who live in male-headed households out of account.

Another approach is simply to look at the experiences of men and women living in different types of household. It is likely that considerable emphasis will need to be placed upon looking at the situation of women in rural households. In many countries there are important differences between landholding rural families and the landless, and in some contexts it is also important to look at the special situation of families that work land on a sharecropping or rental basis. In the literature considerable emphasis has been placed upon women's access to land either as individual women or as members of women's working groups (Roberts [107]). This is a very important issue in some parts of the world, especially in sub-Saharan Africa. Elsewhere, however, it is the household's access to land that is the crucial matter, especially where it is culturally unacceptable for women to work in the fields (even if very poor women may, in fact, be seen to do so).

J. Question sequence analysis

If all the information needed to present an overview of the situation of women could have been gained through single, simple questions, then such data would already be available from censuses and surveys. Instead, some of the most important aspects of women's lives, especially in the economic sphere, can only be adequately described by the responses to a series of questions. In these areas the analysis falls into at least three stages, described below.

1. Analysis of the question sequence

Analysis of the question sequence is the stage during which the responses to the questions on the time-budget, the activities chart, the scale of economic activities and the like are converted into simpler indices that can be used as indicative variables in their own right. The first step is simply to run frequency tabulations for each sex so as to get a feel for the pattern of the data and for categories that are so small as to suggest that they should be combined. Since there are often significant differences between the patterns of women's and men's lives, it is important to look at the response frequencies separately for each sex as the clustering is likely to be very different.

The next step is to experiment with a range of indices that are created by combining the answers to a number of different questions. An example would be an index of participation in agricultural work based upon responses to questions on current activities, on activities during the past harvest season and on a prompt question relating to the care of livestock (see example 8). Another example would be a measure of hours per week devoted to economic activity compiled from the responses to a series of questions on the hours devoted to a range of economic and non-economic activities. In this instance it should be noted that although it would be possible to ask people how many hours per week they devote to economic activities, a lengthy explanation would be necessary of the meaning of the term "economic activity", which might unduly influence the respondent. Also, a series of questions on the time devoted to individual activities should yield a more accurate estimate of the total time devoted to the activities than a single question, especially in populations unaccustomed to quantifying their working hours.

There can also be question sequences on matters other than economic activities. Examples could include an index of household prosperity, compiled by combining responses to questions on the ownership of certain consumer goods together with information on housing quality, or an index of modernization linking responses on questions on education, formal sector employment and age at marriage. Such indices can readily be compiled by a computer programme that assigns points for different responses in such a way that the point scoring for each question runs in the same way, for example with the most points for the response indicating the greatest degree of modernization.

Given the limited resources likely to be available for the analysis of the survey data, careful attention will need to be paid to the priority ordering of work on the creation of indices that are not essential to the first stage of gaining an understanding of the data. It is likely that first stage priority will need to be given to the economic data on economic activities and on poverty of resources.

Another form of analysis of a sequence of questions is the examination of possible clusters of associated causal factors. To take an example, it may be clear that female-headed households are very poor in resources. The preliminary tabulations may also show that resource poverty is associated with low educational levels, lack of access to land and formal employment, and residence in particular regions. The matter to determine is how far there is an association between female-headed households and these other characteristics. The question is whether female-headed households that are poor because women, who are poor in resources, are more likely to find themselves heading households or whether it is because of the lack of an adult male in the household. The reality is likely to be that both factors play a role. Respectability, which insists that children are only conceived within marriage and that marriages survive intact until one of the partners dies, is often beyond the reach of the very poor. Conversely, poor wives may find it easier to break away from an unsatisfactory union because they have so little to lose by leaving (Oppong <u>et al</u>. [108]).

Another way in which this issue could be examined would be by looking at the experience of different categories of households, for example, by contrasting male and female households comprising a single person aged 60 or above or by comparing male and female-headed households composed of one adult and given numbers of dependent children. The finding may be that one sex category is much more unusual than the other, for example, that older men are unlikely to live alone because they are likely to still have their spouses alive and living with them, or that men rarely live alone with their dependent children because they generally remarry or bring in a female relative to housekeep and look after the children.

In comparing household types it is important to be sure of just what is being compared. The term "female household head" is often used as a short-hand formulation for a household comprising an adult woman and her dependent children, without an acknowledgement that there can be many other forms of female-headed household. Example 18 gives an example of a coding frame for different types of household composition. There are various possibilities for such a coding frame and the alternative chosen will depend on just how common various household types are. One Sri Lankan survey, which excluded singleperson households from the sample, found that less than 2 per cent of sample households had only one adult member whereas some 40 per cent had only one or no children (Deaton [39]). Clearly, in this situation the classic femaleheaded household of an adult woman and her dependent children must be so rare as to be difficult to study in a general sample. An early cross-tabulation from a survey should be the number of children in the household (say 0, 1, 2, 3, 4, 5, 6 or more) by the number and sex of the adults (say, no male; no female; 1 female; 2 females only; 2 males only; 3 females only; 3 males only; 3 both sexes; 4+ females only; 4+ males only; 4+ both sexes).

Example 18. Illustrative classification of household type a/

- 1. Female single-person household: under age 60.
- 2. Female single-person household: aged 60 and above.
- 3. Household of female plus dependent child. b/
- 4. Household of female plus two or more dependent children.
- 5. Household of two or more adult females.
- 6. Household of two or more adult females plus dependent children.
- 7. Other female-headed households (i.e. no adult male present).
- 8. Household of 1 adult male and 1 adult female.
- Household of 1 adult male and 1 adult female plus dependent child.
 Household of 1 adult male and 1 adult female plus 2+ dependent
- children.
- 11. Household of 1 adult male and 1 adult female: other combinations.
- 12. Male single-person household: under age 60.
- 13. Male single-person household: aged 60 and above.

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14. Household of male plus dependent child.

15. Household of male plus two or more dependent children.

16. Household of two or more adult males.

17. Household of two or more adult males plus dependent children.

18. Other male-headed households with no adult female present.

 \underline{a} / Three-generational households are not classified separately in this example. This is because it is considered that a tight definition of the household will result in a minimum proportion of three-generational households, which may appear in categories 5, 6, 7, 11, 16, 17 or 18.

 \underline{b} / While it would be possible to define dependent children in terms of an age cut-off (say, under 15), it would be preferable to make the dividing line such that children whose economic contribution is a significant proportion of the total household income are excluded.

There is a tendency to forget that a household composition chart should be analysed as representing the responses to a set series of questions on the membership of the household. Analysis of household composition is often neglected. This is a good example of a bias that, without being explicitly sexually based, still tends to result in poor data on women's situation. Women's lives appear to be more strongly influenced by their household situation than are men's lives, although once the data are available it may indeed be found that men's lives are more strongly affected than was expected.

In the past, the practice has been to speak of poor households and to assume that all household members share a common standard of living. Now this basic premise is being questioned and it is vital to be able to address the question of the respective roles of individual-level and household-level data and find ways of integrating the two levels into a single plane of analysis. While there are some characteristics, such as age and education, that are clearly individual attributes, there are other areas where it may prove difficult to disaggregate the information. Income in a household that operates a family farm for both cash crops and subsistence is an obvious case in point.

In other areas the issue may not be how to make a separate assessment of the welfare of individual household members but rather how to use information on the structure of the household as a whole to explain the behaviour of individuals as, for example, in using the life-cycle stage of the family and the economic activities of other household members to explain women's productive behaviour. It is important to discuss these issues before the survey is in the field so that the questionnaire design and analysis plan can be set up from the start in such a way as to maximize the possible benefits available from the combination of household and individual level data. In practice this may require the simultaneous collection of data on households and individuals with the coding of summary household data onto individual records. Thus, for example, the individual record might show the chief source of income for the household as a whole as well as information on remittance links. Such issues clearly need to be considered early in the planning of the survey since they affect everything from the nature of the sample design to the budget for the employment of coders.

2. Using the indices

The next stage after the development of the indices from the analysis of sequences of questions is to put the indices to work. To return to the example of an index of participation in agricultural work, it would be important to cross-tabulate this newly created variable against a range of other variables for males and females as separate groups. This could show differences in agricultural participation by landownership, social group, education, marital status, parenthood status (another created variable to be derived from information on family relationships within the household and the ages of the children) and so on.

The essential point is to have indices that have a clear meaning to users and that are of obvious utility for policy and planning purposes. There are a wealth of complex techniques for analysing survey data, such as regression analysis, multiple classification analysis, causal modelling or an interactive approach using an automatic interaction detector (see, for example, [109]). Statistical offices in developing countries, however, are unlikely to have the resources to use such techniques. In any case, their use is associated with great problems of interpretation and can be left to academic institutions. What is needed is to have the data in a form where they can answer the questions that are most likely to be asked of them by users with a policy interest. Both data collection and the process of analysis are meant to be of practical use in answering such questions as: What proportion of households have women as their chief economic providers? What proportion of dependent children live in such households?

3. Further analysis

To stress the point just made, further analysis should either be left to those with the requisite time and other resources or should be a matter of immediate practical utility. To give an example: one practical way of presenting the data for general use is to give an idea of the proportions in different categories. A hypothetical example is given in a chart, "Out of every 100 women and men ...". Such charts can also be prepared for sub-groups of the population, for example, comparing distributions for women who are household heads and other women.

K. Analysing economic roles

The question sequences suggested in part two show various ways in which it is possible to obtain high quality data on the economic roles of individuals. An early priority will clearly be to look at sex differentials in these roles. Once these have been established, then the analysis can be extended to look at both possible causes of the differentials and apparent consequences. Priority tabulations should be designed to show characteristics, such as education and age, that are clearly individual characteristics. Others, such as dependency ratios, are important as characteristics of the household. The expectation is that the household characteristics will be significant predictors of economic roles. In analysing the effect of individual characteristics it is important to remember that characteristics are frequently clustered. Thus, for example, education is often strongly associated with age, which makes it important to check whether the behaviour of the young is different because of their youth or of their greater educational experience. Similarly, educated women usually marry men of equivalent or greater education, but the converse does not apply to men. Thus a wife's behaviour may be influenced by her husband's status as well as her own. In this context it may be worthwhile to examine the characteristics of the minority of women whose husbands are of lower status than themselves. If this minority group is so small as not to merit special analysis this in itself is a significant finding.

A systematic examination of the relative impact of individual and household characteristics upon behaviour can be very useful for policy-planning purposes. Often there is an unstated assumption that the characteristics of the household head, however defined, are an appropriate proxy for the characteristics of the individual household members. Such an assumption should be tested.

Example 19 presents an example of an economic role index. Setting out such an index is a useful exercise for clarifying how the analysis is to be carried out. A number of decisions have to be made. At what age is adulthood to be defined to begin? What time period is to be covered? Is there a crucial distinction to be made between full-time and part-time work? If so, where is the cut-off point between the two to be defined? Are family farms so widespread as to merit definition as a separate category? Is there a place for unconventional persons to be classified, for example, beggars, the severely disabled the independently wealthy)? Where are "housewives" to be classified, and has this category been so defined that it does not become the preferred option for lazy or weary interviewers and coders?

> Example 19. Economic role index (Measurement referring to activity over past year)

- 1. Child under 10.
- 2. Child aged 10-14: school only.
- 3. Child aged 10-14: school plus economic activities.
- 4. Child aged 10-14: economic activities only.
- 5. Child aged 10-14: other, specify
- 6. Adult in full-time education.
- 7. Adult, no economic activities too ill, disabled, too old.
- Adult, no economic activities no need, independent income, or the like.
- 9. Adult: full-time wage employment.
- 10. Adult: part-time wage employment.

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Example 19 (continued)

Adult worker in family business: full-time.
 Adult worker in family business: part-time.
 Adult worker in family farm: full-time.
 Adult worker in family farm: part-time.
 Self-employed adult worker: full-time.
 Self-employed adult worker: part-time.
 Other, specify

L. Access to resources

Much of the survey data will relate in one way or another to access to resources and one crucial focus of the analysis will be upon sex differentials in this access. This focus is especially important as a means of looking at the satisfaction of basic needs and the situation of the poorest of the poor.

There are two main ways of examining sex differentials in poverty levels. One is to look at individual poverty, the other is to examine the situation of female-headed households. Both approaches present significant analytical problems. In households where income in cash and kind and many other goods are shared, although not necessarily in portions of equal value, it is difficult to measure the welfare of the individual independently of that of the household. The convention has been to assume that the household members all share a common standard of living and thus, for example, to divide the household income on a simple per capita basis. Yet the very reason for investigating the situation of women is an expectation that there may be major differences between the situation of men and women living within the same household. Extremely intensive surveys, such as nutrition surveys that actually weigh the food apportioned to each household member, or income and expenditure surveys that catalogue every single purchase, can, indeed, provide direct evidence of differentials in welfare between household members. In the case of broader surveys, such as those discussed here, the analysis has largely to rest upon more indirect measures. Examples would be educational investment in children, individual ownership of valuable items, such as watches or bicycles, or the types of medical treatment used in the case of comparable illnesses.

The alternative approach is to look at female-headed households. The simplest case involves the comparison of one-person households, contrasting the situation of women who live alone with that of lone men. In this case, in order to ensure that like is being compared with like, it is important to introduce a control for age and possibly marital status. Otherwise it may be found that the majority of women living alone are elderly widows while the majority of men living alone are young bachelors who have migrated in order to secure employment. Some of the more interesting comparisons would involve comparing single young persons living alone in the urban areas (especially to see how far they contribute to or are dependent upon families back in the rural areas), widowed elders living alone in the rural areas (it may be that old men who are unable to attract anyone to live with them are as poor as old women in a similar situation), and those loners who reach middle age without spouses or children. Clearly, the interest in analysing these special cases will depend upon just how common such cases are within the society.

When comparing male and female-headed households that are composed of more than one person the problem again arises of how to apportion welfare within households. A common situation will be that where the majority of female-headed households are composed of a woman and her children while the majority of maleheaded households are composed of a man, his wife and their children. Since the male-headed households are usually larger than the female-headed households they will actually have greater total income needs than the smaller femaleheaded households. Many of the studies that have found that female-headed households tend to be poorer than the male-headed households have not, in fact, calculated income on a per capita basis. Even a simple per capita calculation does not remove the bias that results from the fact that male-headed households are more likely to include two adults as well as a number of children and that adults have greater needs than those of children.

There are a number of ways of circumventing these problems. One is to look at outcomes rather than inputs. If, after controlling for age, children in female-headed households are less likely to be in school than children in male-headed households, then there is evidently a disadvantage experienced by the former category of children. Similarly, housing conditions in terms of quality of housing and tenure may be markedly different for the two groups of households. Women in female-headed households rarely own their homes. Without the need to make calculations of the number of persons per room, it should be possible to contrast housing in terms of building materials, access to piped water, sanitation and so on. The ultimate measure of outputs would be that of mortality levels. To date, mortality studies do not appear to have taken the sex of the household head into account. It might be expected that children in female-headed households would experience higher mortality levels, but in collecting such data it would be necessary to establish the duration of female headship. As a rough measure it would be interesting to compare the proportions of children surviving among the families of women household heads as compared with the families of women living in male-headed households (after incorporating the necessary controls for age of mothers).

Once again, the interest in looking at the comparative situation of femaleheaded households depends upon just how common such households are. In many cultures female-headed households are rare since there are a range of cultural mechanisms for absorbing such households into larger, male-headed units. Globally, the proportion of female-headed households is almost certainly growing and it is important for policy makers to be made aware of this fact and of the special problems often faced by such households. Yet despite the increase in female-headed households due to the impact of male migration and the loosening of family ties, it is still the case that the great majority of women live in male-headed households and it is these women who are most likely to be ignored by policy makers. Often the assumption is that any measures that improve the welfare of the community or the household as a whole will inevitably benefit their women members. One of the major reasons for recasting the mould of standard surveys to ensure that they are equally revealing of the situations of men and of women is precisely to investigate the validity of this "women will benefit too" assumption.

To give an example, increased cash income from the sale of crops may be spent on improved housing for the household as a whole or on social gatherings at the local café in which only the men participate. If the increased cash income has been gained at the expense of reducing the land available for food crops consumed within the family then the women and children may actually be worse off despite the higher income. Hence, the importance of finding measures of access to resources that are applicable to individuals rather than to whole households. Earlier neglect of subsistence cropping resulted partly from the fact that it was difficult to quantify and evaluate and partly from its often being a women's concern. For the future it is important to be able to redress the balance and to have information on all aspects of the household economy including the inputs of all household members and the internal distribution of benefits.

M. Policy relevance

The main purpose of a survey report focusing on the situation of women is to provide information as a base for decisions on policies and programmes. While it is valuable to have a good data base for the formulation of policies and programmes designed to be of special benefit to women, it is even more important to have a good data base on women for general planning purposes. In many contexts it is true that until now general policies and projects have done more, however unwittingly, to disadvantage women than special projects have been able to deliver in the way of advantages. Incorrect assumptions on women's roles and situation have often been at the base of damaging general policies, that is, where women's concerns have not simply been ignored. Good data can play a major role in redressing this imbalance, but only if they are readily available, timely and presented in a form that is readily understood by planners and policy makers, who, understandably, may have no special interest or expertise in this area.

The survey report should provide:

(a) Timely summary measures to assess women's situation and needs across varying geographical areas, socio-economic groups and age groups;

(b) Baseline data for the monitoring of women's long-term situation and participation in development;

(c) Background data that can be used by planners with specialized needs in terms of small area data or in-depth information on particular topics (Data Use and Access Laboratories [110]).

On the third point, a national survey cannot provide all the data that planners involved with individual projects will need. It can, however, set them on the right track and help them to avoid making mistakes.

In the longer term it is to be hoped that all data collection systems will acknowledge the importance both of collecting data separately for each sex and of adapting their methodologies to more fully reflect the situation and concerns of women. For the present, however, given the limitations of data obtained from
censuses and from various administrative records, multi-subject household surveys provide the greatest promise for yielding timely data on the situation of women in sufficient detail to assist in planning social development, monitoring the progress of social programmes and evaluating the success of social policies and their interrelations with economic and more general aspects of national development.

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