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SEX-BASED STEREOTYPES, SEX BIASES AND  
NATIONAL DATA SYSTEMS

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## PREFACE

At its nineteenth session, the Statistical Commission "agreed that all possible precautions should be taken so that the use of concepts or methods involving sex-based stereotypes would not prejudice census results".<sup>1/</sup> Several paragraphs of the document entitled "Interim report on the United Nations recommendations for the 1980 population and housing censuses" (ST/ESA/STAT/91, paras. 26-29), circulated to Member States in 1977, dealt with this issue. The Economic and Social Council, in resolution 2061 (LXII), noted "the action initiated by the Statistical Commission at its nineteenth session in November 1976 in planning for the 1980 World Population and Housing Census Programme and efforts under way to encourage needed revisions in the basic concepts used for the collection and compilation of economic, demographic and social statistics so as to free them from sex-based stereotypes", and requested "the Statistical Commission at its twentieth session, as a contribution to the success of the United Nations Decade for Women: Equality, Development and Peace, 1976-1985, to continue its action in co-operation with national statistical offices, regional commissions and intergovernmental organizations, organs of the United Nations and the specialized agencies, especially the International Labour Organisation, the United Nations Educational, Scientific and Cultural Organization, the World Health Organization and the Food and Agriculture Organization of the United Nations ...".

As part of this effort, the Statistical Office of the United Nations Secretariat engaged the services of a consultant, Mr. S. D'Souza of the Indian Social Institute, for a three-month period to prepare a report reviewing the primary problems encountered by national statistical offices in meeting the needs of users for statistics better oriented to examining the role and status of women and providing information on the solutions that have been developed or are being tested to deal with these problems. To these ends, Mr. D'Souza visited a number of national statistical offices and several of the regional commissions and specialized agencies of the United Nations. He also visited a number of institutions and individuals interested in using population census and related official statistics to examine issues related to the role and status of women and in ensuring that these statistics were free of sex-based stereotypes. (A list of the countries, organizations and institutions visited is presented in the annex to the present document.) Supplementary support for a portion of Mr. D'Souza's travel was generously provided by the Ford Foundation.

The present document is a revised version of Mr. D'Souza's original report and reflects the many helpful comments on and corrections to the original paper received from the regional commissions and the specialized agencies, particularly the International Labour Organisation (ILO) and the World Health Organization (WHO). A preliminary version of the document was made available to participants at the IUPERJ Semanario a Mulher na Forca de Trabalho na America Latina, held from 23 to 26 November 1978 at Rio de Janeiro, Brazil, as an informal contribution to the discussions at that Seminar.

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<sup>1/</sup> Official Records of the Economic and Social Council, Sixty-second Session, Supplement No. 2 (E/5910), para. 48.

The aim of the present document is twofold. First, it is intended as a discussion document that may initiate or contribute to a dialogue between the agencies that comprise the national statistical system of a country and those wishing to use the statistics these agencies produce to examine issues related to the role and status of women, their participation in development and equality between the sexes.

Such a process of discussion between producers and users of statistics in any field is essential so that the producers have a better and more up-to-date understanding of the diverse needs of the many national data users and so that the users have a clearer and more realistic understanding of the possibilities that the national statistical service has for meeting their needs given, the technical and resource constraints under which the producer must operate and the sometimes competing demands of other users. <sup>2/</sup> Such dialogues are particularly critical in the case of a newly emerging set of data needs where the producer has little or no awareness of the specific needs of a newly identified user group and these users are in a position to make their requests for improved data in only vague or sweeping terms.

The second purpose of the present document is to provide information on the problems encountered in a number of countries in meeting needs for statistics better oriented to examining the roles and status of women and related issues and some of the solutions to these problems that have been developed or are being tested in different countries. Clearly, the problems described in this report vary markedly with respect to their universality, nature and complexity. The solutions described, likewise, vary both in respect to these factors and in the extent to which they have satisfactorily resolved the problems addressed. In a topic of policy concern that is in the process of evolution and development, such as the present one, it can be expected that a period of testing and experimentation, involving both users and producers of statistics, will be required before satisfactory solutions can be found to all the problems discussed in this document.

In line with discussions on this topic by the Statistical Commission, at its nineteenth and twentieth sessions, the present report is being circulated to national statistical offices and others for comment. In this connexion, the Commission, at its twentieth session, "supported the convening of an expert group on the subject, involving producers of statistics and concerned users and the publication of the report as a technical report, depending upon the comments received from national statistical offices and the availability of resources". <sup>3/</sup>

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<sup>2/</sup> For a further discussion of the relationship between users and producers of statistics, see The Organization of National Statistical Services (United Nations publication, Sales No. E.77.XVII.5), paras. 53-56.

<sup>3/</sup> Official Records of the Economic and Social Council, 1979, Supplement No. 3 (E/1979/23), para. 105.

## INTRODUCTION

1. In connexion with the World Conference of the International Women's Year, held at Mexico City from 19 June to 2 July 1975, a World Plan of Action was drawn up in order to realize the objectives of the International Women's Year. 1/ Paragraphs 161 to 169 of this Plan, which were later endorsed by General Assembly resolution 3520 (XXX) of 15 December 1975, stress the importance of research, collection and analysis of data on women and the role the United Nations could play in this task.
2. An interim report on the 1980 World Population and Housing Census Programme prepared by the Statistical Office of the United Nations Secretariat for the nineteenth session of the Statistical Commission, held at New Delhi from 8 to 19 November 1976, noted that sex-based stereotypes may adversely affect the usefulness of population census results and that such problems arise most commonly in connexion with the concepts of head of households and the economic activity of women (E/CN.3/480, para. 29).
3. At its nineteenth session, the Statistical Commission "agreed that all possible precautions should be taken so that the use of concepts or methods involving sex-based stereotypes would not prejudice census results". In that connexion, the problem posed by the concept, 'head of household', in a number of countries was noted. The concept was largely out-of-date in the context of modern social and labour force conditions in many countries. The Commission agreed that whatever solutions were developed for that or other problems the census instructions for enumerators should be clear and should not leave any room for variations in interpretation by individual enumerators." 2/ Incorporating suggestions made at the nineteenth session of the Commission, an Interim report of the United Nations recommendations for the 1980 Population and Housing Censuses, prepared by the Statistical Office, was circulated to Member States and others in 1977. Paragraphs 26 to 29 of the report (ST/ESA/STAT/91) deal with the question of sex-based stereotypes.
4. Subsequently, a report of the Secretary-General on the draft principles and recommendations for population and housing censuses (E/CN.3/515 and Add.1-3) was submitted to the Statistical Commission at its twentieth session, held from 20 February to 2 March 1979, and circulated widely to Member States and others to assist them in preparing for their forthcoming population censuses. This document treats in more detail most of the issues mentioned in the interim report on the census recommendations, in particular the relationship to the head (or other reference person) of the household (E/CN.3/515/Add.2, paras. 68 and 69) and the activity status (E/CN.3/515/Add.2, para. 190). The document contains also a

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1/ Report of the World Conference of the International Women's Year (United Nations publication, Sales No. E.76.IV.1), chap. II, sect. A.

2/ Official Records of the Economic and Social Council, Sixty-second Session, Supplement No. 2 (E/5910), para. 48.

discussion of problems frequently encountered in obtaining data free from the consequences of sex-based stereotypes. In accordance with the Commission's decision at its twentieth session, the document has been revised in accordance with the Commission's comments and will be published as Principles and Recommendations for Population and Housing Censuses. <sup>3/</sup> No changes were made between the draft document and the final text in the paragraphs dealing with these issues.

5. As indicated in the preface, the present document is largely based on a three-month consultancy assignment that included two major trips to national statistical offices and concerned users in various countries. The two trips were planned, on the basis of information available, to give a broad picture of activities concerning the collection, compilation and utilization of statistics relevant to the examination of the role and status of women and related issues.

6. The purpose of these visits was to obtain first-hand information from a diverse group of countries regarding relevant practices that could be useful to other countries dealing with problems of sex-based stereotypes and sex biases in national data systems. The visits were undertaken in November and December 1977 and in April and May 1978. The time spent in any one country was necessarily brief. Although an effort was made to contact those technical staff in each country concerned with (a) census data collection (particularly questionnaire preparation), (b) sample surveys (particularly labour force surveys) and (c) demographic research studies (particularly those related to women's participation in development), it was not always possible in the limited time available, to meet with all of the appropriate staff of the national statistical offices or the most knowledgeable users. Moreover, in several of the countries visited changes in procedures may have been made since the visits were undertaken.

7. The present report is not meant to be a comprehensive study of statistical practices in any particular country. Rather country experiences and examples are cited as illustrations that statisticians in other countries would find useful or to unearth similar problems in their own country. Moreover, because the level of statistical organization and cultural backgrounds varies greatly from country to country, care must be exercised in drawing general conclusions that are considered applicable to all countries from the material contained in the present document.

8. In particular, there is some imbalance in the report regarding illustrations provided. In part, the illustrations given reflect the extent of research on and prior interest in the subject of the present document in different countries and the availability of data; but in part, problems of timing and language also contribute to the choice of illustrations. Available documents in Norwegian, Swedish, Polish, Serbo-croatian and Arabic could not be used in the preparation of this report, although materials in English, French, German, Portuguese and Spanish were used.

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<sup>3/</sup> United Nations publication, Sales No. E.80.XIII.8.

9. Despite these limitations, a few general conclusions emerge. National statistical offices appear ready to assist in improving the data base available for studying the role and status of women, their participation in development and equality between the sexes. Their willingness to collaborate in this effort encompasses both direct data collection activities and the methodological testing and experimental activities needed to improve the concepts and instruments of measurement. Nevertheless, this topic does not appear to be one of the central priorities in most of the offices, and in some countries concern about these issues remains limited to specialized research institutions.

10. One cause of the low priority given to this subject in a number of countries is the fact that the "users" and "producers" of data constitute two separate groups and a dialogue between them does not always exist. Too often statistical organizations appear to be awaiting concrete and practical requests for data on these issues and organizations concerned with "women's" issues often appear unable to specify their needs in specific terms.

11. The difficulties arising from the lack of communication between those concerned with using official statistics to ascertain progress achieved in national programmes aimed at increasing women's participation in development and those responsible for the production of official statistics is further aggravated by several other factors.

12. First, in the case of most developing countries, the primary cause of insufficient and unreliable data on this, as on other topics, is the lack of an adequately developed national statistical infrastructure. Countries, where population censuses are infrequent, where no permanent household survey capability exists, where civil registration systems and other administrative reporting systems are deficient and where the national statistical offices are poorly staffed, experience an acute lack of data on all topics of policy concern. In these countries, significant progress in increasing the availability of statistics needed to assess women's participation in development will depend, to a major extent, on programmes such as the National Household Survey Capability Programme, the World Population and Housing Census Programme and the World Programme for the Improvement of Vital Statistics and related multilateral and bilateral technical assistance activities.

13. Secondly, many users of statistics in this field, as is the case with many users in other fields, place a lower value than the statistical producers on the data needed by other users. As a result, producers often seem to be in a position of advocating that the consistency of existing time series be maintained. In some cases where the producer is caught between apparently conflicting demands of users, an extensive period of discussion and experimentation is required before these conflicts can be resolved satisfactorily. In other instances, these conflicts are more apparent than real and the needs of the two sets of users may be readily served by only a minor effort of the producer or by minor adjustments in the requirements of either or both users.

14. Thirdly, some of the elements required to monitor participation of women in development are of a qualitative nature and do not fall within the framework of

national statistical data collection systems. Other series, such as the composition by sex of various local and national elective and appointive bodies, while quantitative, are not now within the purview of most national data collection programmes but could reasonably be added to the responsibilities of the official national statistical system, assuming the appropriate authority and resources were given to the statistical agency.

15. Clearly, the establishment of basic statistical infrastructure and capabilities in developing countries, the resolution of conflicts between user groups and the scope of the data to be included within the national statistical system are issues that are fundamental to national statistical policy and are largely beyond the scope of this report. The present report deals primarily with a narrower set of problems that have restricted the availability of reliable data needed by those concerned with improvements in the role and status of women. In addition to the *communications gap* between producers and users mentioned earlier, and to which this entire document is addressed, two specific classes of problems are discussed in this report.

16. First, there are preconceptions, often cultural, regarding the role or status of persons based on sex. These are referred to in the present report as "sex-based stereotypes". Such sex-based stereotypes that may affect the design and operation of statistical programmes include the idea that women are not in the labour force or that males, regardless of age, are invariably the household head.

17. The second class of problems relate to biases in the collection, processing, compilation and presentation of statistics that are sex based. In the present document these problems are referred to as "sex biases". They may arise either because of sex-based stereotypes or because of technical factors in the process of statistical measurement. An example of the former type of sex bias is a decision to publish population census tables on the employed labour force by occupation for males only based on the stereotype that any employment women may have is of marginal significance. An example of a sex bias arising from the technical circumstances of the measurement process is that in many population censuses and surveys a single individual may report information for all members of his or her household. Because, for most countries, it is rare that men and women serve this function in equal numbers, there can be marked variations, by sex, in the extent to which data are based on self-reports or proxy responses. As a result, there may be important quality variations in data for males and females for certain types of data.

18. The balance of this document explores these issues in further detail. For convenience, the topics treated are organized in terms of the following sections: I. Head of household, II. Household and family, III. Economic activity, IV. Selected other issues, and V. Conclusions. However, it should be stressed that the order of the sections does not necessarily reflect the importance of each subject for any particular country.

## I. HEAD OF HOUSEHOLD

19. The issue of sex-based stereotypes has been raised in a serious way in some member countries of the Economic Commission for Europe (ECE) such as Canada, Sweden and the United States of America, with regard to the question of "head of household". Census questionnaires or schedules traditionally involve the designation of one person in each household as "head of household". The relationships of the other members of the household to this person are then noted. The designation of one person within each household as its head served two functions: first, it assisted the work of the census enumerator by providing a structure for the collection of information from the household and second, the person designated as head and that person's characteristics were used in tabulating and analysing the census.

20. This traditional practice has been opposed in some countries by those groups that consider the designation of "head" a repugnant procedure smacking of authoritarianism. Furthermore, it is argued that whatever the value of this concept in the past it has limited analytical relevance in many societies. Against a background of protest the various statistical offices have been under pressure to experiment with a new questionnaire design that would not provoke hostility among any segments of the population. In several of these countries self-enumeration is the usual practice. Census forms are mailed to various addresses and it has been a prime necessity that these forms should not raise negative reactions as the whole purpose of the census could then be frustrated.

21. In countries outside the ECE region the problem of "head of household" has been raised in a different way. In a study of 74 developing countries, it has been shown that potential household heads who are women ranged from a low of 10 per cent to a high of 48 per cent of all potential household heads. In all countries, but particularly in developing countries, it is important to have reliable statistics on the number and characteristics of households headed by women because such households have serious problems of poverty. Female heads of household are often widows, persons who are separated from their husbands or partners, divorced women or single mothers. <sup>4/</sup> Thus while the discussion in ECE countries has revolved around selection of new terminology to replace the "head of household" concept, in some developing countries the emphasis is on the collection of more reliable data on household heads, by sex, as an important aspect of government social welfare planning.

22. The cultural setting of any country is of great importance in determining whether the use of the "head of household" concept can lead to meaningful results. Thus, in some North African countries, religious factors could inhibit women being nominated as heads of households except in quite exceptional circumstances. On the other hand, in a number of West African countries, where matrilineal traditions

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<sup>4/</sup> M. Buvenic, N. Youssef and B. von Elem, "Women-headed households; the ignored factor in development planning".



exist, and where women traditionally have assumed important economic roles, the designation of a woman as a household head is facilitated. For example, in the latest Ghana census, 31.9 per cent of household heads with children but no spouses present, are females. Owing to the rapid changes in economic structures occurring in a number of West Asian countries and the related movements of males to work-sites in these countries, de facto women "heads of households" are increasing in rural areas. Thus, though a large portion of the material of this section concentrates on the ECE countries, the "head of household" question is, in fact, of great importance to a wide range of countries.

23. Within the ECE region, countries are not uniformly concerned about this issue. In Sweden, for example, where the population-registration list of names has been used to mail the census and other statistical questionnaires, criticisms were raised that the questionnaires were being addressed primarily to males as the designated "head of household". Similarly, in the United States of America, some of the adverse reaction to the head of household question took the form of organized protest requiring a formal response from the Bureau of the Census:

"On the one hand, by using the term "head" it may seem as if the Bureau is fostering a continuation of attitudes which imply superior-subordinate relationships within families and households - a position the Bureau clearly does not wish to hold. However, on the other hand, the Bureau must also be concerned with maintaining the ability to produce a data set which is responsive to a wide variety of user needs and demands. These needs revolve around descriptive data on living arrangements of individuals as well as data on household and family configurations ...". 5/

24. In some other countries of the ECE region, there has been no strong public or political reaction to the use of the term "head of household" in census household schedules. In the United Kingdom, which so far has had relatively little public pressure on the issue, the matter has, nevertheless, been considered by the statistical authorities, who proposed the introduction of the concept "joint head". In a note from the Census Office the position has been taken that the United Kingdom is not isolated from the prevailing evolutionary moves towards sex equality and in fact has introduced special legislation to effect this objective. Indications are from the 1971 Census and subsequent census tests that an increasing number of non-family households have no recognized head of household and that an increasing number of family households recognize a husband and wife as joint heads. 6/ However, in the United Kingdom, the situation appears to be complicated by legal problems since legislation exists requiring the heads of households to fill in the census forms.

25. In view of the difference of opinion held by various ECE countries, an informal meeting of national experts was held under ECE auspices in September 1977,

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5/ Intercom (Washington, DC, Bureau of the Census, January 1977).

6/ R. J. Beachem, "Note by the United Kingdom concerning Census Office's view on use of the term 'head of household' in the 1981 Census", August 1977.

to prepare proposals concerning household heads and family data to be collected for the 1980 round of population and housing censuses in the countries of the ECE region. The recommendations drawn up in the report of that meeting (CES/AC.6/144) were considered and approved with small amendments. A formal meeting on the same topic was held at Geneva in November 1977, which was attended by participants from most of the ECE countries as well as representatives from international agencies including the ILO, WHO and EEC.

26. With regard to the concept of "head of household" the position was taken that:

"The information submitted by countries indicated that in many ECE countries the concept of head of household is still meaningful and that its use has not aroused any significant public opposition. These countries plan to continue to use this concept in their 1980 censuses and to compile tabulations in which households are classified according to characteristics of heads of households. However, in other ECE countries this concept has lost most of the meaning it may once have had as a result of changing social conditions, and its use has aroused growing public opposition because of the authoritarian connotation of the word 'head'. These countries plan to replace the concept of head of household by an alternative approach to the determination of relationships within households and families, and to discontinue the compilation of tabulations in which households are classified according to characteristics of the head of household." (CES/AC.6/144, para. 4).

27. Consensus was reached that these differences should be recognized in the recommendations in ECE countries and that the term "head of household" should be replaced by that of "reference member" of the household. All references to "head of household" in the recommendations should be changed to "reference member". It was left to the countries to decide who this reference member should be. Some alternatives were suggested: "(a) the head of household, (b) the head of household or one of the joint heads, (c) the person (or one of the persons) who owns or rents the housing unit or in whose name the housing unit is occupied under some other form of tenure or in whose name part of the housing unit is rented or occupied under some other form of tenure, (d) an adult person selected with a view to facilitating the determination of family relationships, or (e) a person selected on the basis of other criteria". 7/

28. In Latin America there is little evidence of a move to abandon the "head of household" concept. In fact there has been resistance to changing the concept in order to maintain continuity of data series and to avoid difficulties in the identification of relationships with regard to various members within a household. Moreover, reflecting the increased interest in female-headed households in countries of the region as a matter of social policy concern, several tabulations of "heads of households" by sex has been provided for in the Inter-American Statistical Institute (IASI) recommendations.

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7/ Recommendations for the 1980 Censuses of Population and Housing in the ECE Region (United Nations publication, Sales No. E.78.II.E.6), para. 99.

29. The definition by IASI for "head of household" is as follows:

"The head of household is the person who lives alone (in the case of the one person household), or who is acknowledged as such by the household members (in the case of the multiperson household). For the latter case a more desirable definition would take into account the person bearing the chief responsibility for the economic maintenance of the household." 8/

30. Similarly, a study prepared by the Statistical Division of ECLA entitled "La experiencia Latinoamericana en los censos de población de 1970 y orientaciones para los censos de 1980" (E/CEPAL/1052) concentrated on the possibility of a redefinition of household as the basic "unit of dwelling" rather than on the notion of headship itself. The possible choice, as "head", of the person responsible for the economic maintenance of the household is discussed in the instructions but not recommended. The problems involved in using an objective economic criteria for designating "head" are mentioned. Because of the difficulties of measuring income for each member of the unit as well as the fact that the "unit of dwelling" may not just consist of "nuclear families", the risk of error would be great. Further, the person taking decisions in a household might not necessarily be the same as the economic "maintainer" of the household. The head of the "unit of dwelling" is finally considered to be the person recognized as such by the rest of the members of the unit.

31. As mentioned earlier, interest in the concept head of household in many developing countries, particularly in Latin America, often arises out of the social welfare problem posed by households headed by women. Among the various types of female heads of households in many developing countries, widowhood remains the structural position to which, in theory, the greatest cultural and institutional support is accorded. A distinction, however, has to be made between the ideal system and actual behaviour. Widows often find themselves in tragic circumstances even if theoretically they should be held in high respect. On the other hand, for divorced and separated women institutional support or social acceptance may often be lacking. Such women often do not have any well defined societal status. As a result, they must often work for long hours out of sheer economic necessity. In several parts of Latin America, "consensual" unions are common. Owing to the lack of legal protection, this group of women is often forced to assume family headship under difficult circumstances as men can break such relationships without assuming much responsibility. Most of these women are also single mothers.

32. Unless accurate data on the number and characteristics of female-headed households (and families) are obtained in population censuses and surveys, social-welfare policies and programmes aimed at ameliorating the conditions of these women and their families may be seriously distorted. However, in countries where there is a cultural norm that assumes males to be the household head, there can be substantial undercounts of female household heads and of female

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8/ IASI, "Report of the Sub-Committee on Demographic, Housing and Related Statistics of the Committee on Improvement of National Statistics on its third session", Washington, D.C., March 13-22, 1977.

headed families. Such a sex-based stereotype can lead to biases at almost any stage of the measurement process. To avoid these biases, the training programme and instructional materials for the enumerators, the manual and computer editing specifications, the tabulation specifications and the materials used in the census communications programme should be reviewed to ensure that they are free from the stereotypical view that household heads will always be males.

33. A number of Caribbean countries, like those in West Africa, report relatively high proportions of female-headed households. As one might expect, these countries employ procedures that are comparatively unbiased. For example, the enumerators manual used in Jamaica for the 1970 Population Census states: "The head of the household is the person, man or woman, who carries the main responsibility in the affairs of the household." Although the instructions go on to indicate that "in case of a family it will be obvious who is the head of the household; usually he is the chief bread-winner", the bias introduced by the masculine pronoun is probably not serious, particularly in the context of the analysis of data on female-headed households for social welfare purposes.

34. While most countries have done little or no methodological research on possible alternatives to the head of household concept, a few countries have attempted to carry out some systematic investigation of this topic. In the balance of this section some work on this issue from the statistical offices of Canada, the United States of America and Sweden are described.

35. In a background paper prepared by Statistics Canada on the question, it was pointed out that a basic requirement of the concept of "reference person" is to facilitate family assignment in the greatest number of cases possible:

"In 1971, approximately 71 per cent of Canadian households consisted of one census family with no additional persons. In these households, family assignment is straightforward, no matter who is chosen as reference person. In another 18 per cent of households, no census family exists, once again causing no problem for family assignment. It is therefore in 11 per cent or 647,500 households where family assignment could potentially be problematic if an inappropriate reference person were chosen.

"For purposes of family assignment, as it is presently constituted, the ideal person is an adult member of a census family; if three of four generations are present, the person should be in the second generation as this case will usually yield the most direct relationships." 9/

36. Once family assignment has been assured, endeavours should be made to:  
(1) maintain past data series and universes as long as they remain meaningful,  
(2) meet developing demands for cross-classification and linkages, (3) retain or

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9/ R. M. A. Sametz, "Household reference person in the census of Canada: some alternatives and their implications", Statistics Canada, 19 August 1977.

achieve comparability internationally and with other Canadian Surveys, and (4) assure flexibility toward developing family lifestyles, in so far as is possible". 10/

37. In Canada the over-all data series maintained in the census can be broadly grouped under three main categories: (a) families, (b) private households, (c) dwellings. The choice of the "reference person" would have to maintain these series intact as far as practicable as well as reflect current social reality. Further, the interest of users and researchers in the field of housing has been expressed with regard to improving linkages between data on housing and the census family due to the relationship between housing demand and the life cycle of the nuclear family. The appropriate choice of a "reference person" in the housing and population census could assist in this objective.

38. In the case of Canada, some alternate approaches at defining reference persons in the 1981 Census were given due consideration. These included the following: (1) no change in the use of the word "head"; (2) joint reference persons - "co-head"; (3) the "reference person" termed person 1, would be "any adult of the household, excluding lodgers and employees"; (4) as in (3), but "never married" adults living with parents would also be excluded in the choice of person 1; (5) owners/renters would be entered as person 1; and (6) a "reference person" as well as the owner/renter would be identified. The use of alternative (5) had the advantage of providing linkage between the population and housing census. However, the owner/renter may not bear any particular relationship to the other household members. Classification of characteristics of this person would then not have much significance.

39. After various alternatives were tested, the decision was made to define "person 1" on the census form as:

"Any person who lives alone;  
Either the husband or the wife in any married couple living here;  
Either partner in a common-law relationship;  
The parent, where one parent only lives with his or her never married  
sons or daughters;  
If none of the above apply, choose any adult of this household".

Moreover, in order to obtain at least part of the desired linkage between the population and housing census data an additional question will be included that asks the household to "enter the name of the person or persons who lives here and who is responsible for paying rent, mortgage, electricity, taxes etc."

40. In the United States of America, the Bureau of the Census in the 1977 Oakland Census pre-test designated the reference person as the one "in whose name the home is owned or rented". The name of this person was put in column 1. If no household member owns or rents the place, any household member 14 years or older is listed in column 1. Questions were then asked linking all other members in the home to

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10/ Ibid.

the person in column 1. The change in the procedure utilized in Oakland from that used in the 1976 Camden census pre-test was that, at Camden, all persons in the home were linked with the head of household thus requiring the respondent to designate one person as the head of household.

41. On the basis of encouraging results from the Oakland and subsequent pre-tests, this approach was adopted for the 1980 United States Population and Housing Census. One finding of the test results was that in a majority of cases the person listed in column 1 using the "owner/renter" instruction was the same person previously designated as the "head of household". This means that tabulations of characteristics under the new and previous concept are expected to yield broadly similar results and that continuity of results between the 1980 Census and earlier censuses and surveys would be maintained in a general way.

42. Notes from the National Bureau of Statistics indicate that in the case of Sweden the "reference member of the household" may be defined as the "occupant of the home". This means a person who lives in the home and rents it, owns it or occupies it in some other way. If two or more persons are "occupants of the home" it is up to the persons to decide which one should be regarded as the "reference member", to whom the relationships in the household are given. 11/ When tabulating the results of the census, three cases would have to be considered: (a) only one "occupant of the home", (b) two or more "occupants of the home", or (c) no "occupant of the home" as defined by the census.

43. In the Bureau of Statistics of Sweden there is concern that the censuses reflect consensual unions since in some of the younger age groups this type of union is becoming quite common. In the "Survey concerning living conditions" in 1974, a "household approach" was utilized, that is, the sample person's spouse "co-habitant" was also interviewed. The question utilized for the relationship to the respondent provided seven categories as possible answers. The first category was spouse/living together with the person interviewed under married like situations (but not married). Under Swedish social conditions the question of "head of household" does not retain much meaning.

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11/ C. Nilsson, "Remarks for discussion of head of household and type of household" (Stockholm, National Bureau of Statistics, Population Unit, 6 September 1977).

## II. HOUSEHOLD AND FAMILY

44. The elements involved in the question of "head of household" considered in section I above were different depending on whether developing or affluent countries were being considered. Some of the major innovations being suggested were mainly discussed in the context of the latter countries. However, any attempt to measure the progress of the status of woman within a particular country will depend on the availability of data that recognize the fact that men and women's roles are very different or conceived very differently in different countries.

45. As a result of cultural patterns existing in countries, women may or may not undertake particular types of income generating activities. A woman's decision to work, for instance, has to be made within the context of the "life stage" of her family whereas a man's decision under similar circumstances would be very much less restricted. An understanding of such cultural settings is important before one decides to make studies on the evolution of women's status. The ability to measure some of her roles, for instance her "home-role", will provide great insight into other consequences such as why women tend to have lower average income than men. The census tabulations required for the understanding of women's status involve not only such traditional variables as age and sex, but must also include classifications in terms of derived variable such as "family stage". Such a tabulation would help explain, for example, why an educated woman with a similar degree to that of her husband, may, in fact, opt not to work because of her preoccupation with child rearing at a particular stage of her family.

46. Interest in the family data is beginning to manifest itself in countries at all levels of development. Changes in family structure from the extended family to the nuclear family during the processes of industrialization and urbanization are the focus of sociological studies. "The family as a unit of welfare in national planning" was the theme of a recent Asian Regional Conference held at New Delhi in October 1977. In Latin America, requests for "family data" are now being expressed by research groups. 12/

47. The concept of household as a socio-economic unit has created problems in censuses in African countries. In many developing countries, whether in Africa or Asia, family structures are quite complex. Appropriate research indicating how census data on the household can be utilized to understand actual social realities are rarely available. In fact, some sociologists tend to bypass the whole set of data collected by the census organization and base their inferences on anthropologically-oriented micro-studies. The need for a conceptual framework that would link micro-studies with data from available censuses and national surveys has been pointed out by some authors. 13/

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12/ S. Torrado, "Algunas reflexiones sobre los censos de 1980 en la perspectiva de la investigacion sociodemografica y las politicas de poblacion en America Latina", Latin American Demographic Centre (CELADE), April 1977.

13/ A. M. Shah, The Household Dimension of the Family in India, Orient Longmans, 1973.

48. The Conference of African Statisticians, at its tenth session, held at Addis Ababa from 17 to 22 October 1977, discussed some of the problems encountered during the 1970 round of censuses and proposed that countries should make appropriate adaptations of the United Nations definitions to their own cultural setting (E/CN.14/687). Such an adaptation was made in Ghana where the following definition was used: "a household consists of a person or a group of persons who live together in one house or compound share the same housekeeping arrangements and are catered for as one unit". Since in several parts of the country a man and his wife may not live together in the same house, this definition would mean that they would not form part of the same household. Census planners have recognized the problem of linking a man and his wife in a meaningful definition of a household. In Senegal the "concession" was utilized as unit of listing. But as the "concession" is a multi-household concept, its use for demographic analysis and related purposes is limited (E/CN.14/CAS.10/15).

49. The Indian concept of "joint family" is complex and many studies have been devoted to the subject. The definition of the household used for the 1971 Census was "a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so". There may be one-member households, two-member households, or multimember households. For census purposes each one of these types is regarded as a "household". Again, there may be a household of persons related by blood, a household of unrelated persons, the latter are boarding houses, hostels, residential hotels, orphanages, rescue homes, ashrams etc. These are called "institutional households".

50. A "one person household" is a person who makes provision for his own food or other essentials for living without combining with any other person to form part of a multiperson household. In view of the fact that it is important to know whether members of the household are related to each other or not, it is recommended that household types be identified as nuclear, extended or composite.

51. The Inter-American Statistical Institute (IASI) defines a "multi-person household" as a group of two or more persons who make common provision for food or other essentials for living. The persons in the group may pool their incomes and have a common budget. The group may be composed only of related persons or of unrelated persons, or a combination of both. 14/

52. The definitions presented above have basic similarities which converge around the concept of a household as a "house-keeping unit". The identification of families within households is not always simple. The latest United Nations population and housing censuses recommendations distinguish between "family" and "census family" within a household. According to these recommendations the "family" is defined as "related persons having a common budget although not necessarily living together". On the other hand, the "census family" is defined

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14/ Inter-American Statistical Institute "Report of the Sub-Committee on Demographic, Housing and Related Statistics of the Committee on Improvement of National Statistics on its third session", Washington, D.C., 13-22 March 1977.



as "those members of the household who are related, to a specified degree, through blood, adoption or marriage. The degree of relationship used in determining the limits of the census family is dependent upon the uses to which data are to be put and so cannot be set for world-wide use" (E/CN.3/515 and Add.1-3). The diversity of cultural conditions is thus recognized in the recommendations.

53. In view of the changing roles of women and the family some countries and regional institutions have initiated studies and the development of data sets implying new conceptual frameworks. Some of these efforts are presented in the remainder of this section.

#### A. Norway

54. The Norwegian Central Bureau of Statistics while discarding the "head of household" concept intends to identify a "reference person" in the family. If there is more than one family within the household then the concept "main family" is defined as the family which has the highest number of members. Other variations are proposed when the number of members of two families in a household are the same.

55. The Bureau of Statistics in Norway has considered constructing alternatives to classifying the family by variables other than the "head of household". Four ways of considering a family have been discussed in a note from the Norwegian Bureau: (a) a concept for "age" of a household or family, (b) the educational status of the household or family, (c) economic activity of the household or family, and (d) the direct source of livelihood of the household or family.

#### Concept for "age" of a household or family

56. Families are often considered as "young families" or "old families". A proposal is made to consider the "age" of a family to be the average age of the man and wife. A suggestion to prepare tables showing the difference between the spouse's age is also to be considered. The classification of families is proposed by "family phase" based on the age of the youngest child of the family and the age of a married woman in the family.

#### Educational status of the household or family

57. The level of education of individuals is based on the number of years completed in the school system. However, the educational level of the family may be considered as the average of the educational level of the grown persons in the family.

#### Economic activity of the household or family

58. The aim of a measure of economic activity of the family is to find if single persons and married couples are economically active and the level of their activity. Married couples also adjust their economic activity with regard to each other. The required measures of economic activity of a household would take into account the economic activity of all adult persons in the household.

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Direct source of a livelihood of the household or family

59. As the household represents an economic unit, it is important to have data on the source of livelihood for the household. Accordingly, every member of the household would be classified according to a particular industry and rules for persons doing housework would also be elaborated so that work done by a particular household would be distributed according to different industries as sources of livelihood. 15/

B. United Kingdom of Great Britain and Northern Ireland

60. The position of the United Kingdom is that the traditional household-type classification, which is essentially based on genealogy, is less responsive to current and future needs as compared to classifications involving such characteristics as elderly people living alone, the families living with children, lone parent families.

61. The view of the United Kingdom is that a very strong case exists for two types of classification of household composition in census and survey tabulations:

(a) One type will be based on the demographic classifications involving two variables, number of persons in the household and the ages of these persons. The demographic classification can be obtained from 100 per cent processing of households and is available at the small-area level;

(b) A family-based classification based on a detailed coding of the "relationship to head" item is costly and time-consuming to process. This classification has been produced so far for a 10 per cent sample of households and is thus applicable at higher-area levels.

62. The classification used in the 1971 United Kingdom Census was similar to the United Nations recommendations for censuses. However, the United Kingdom classification for families failed to identify dependent children and merely identified as children persons who were "never married" of any age living with one or more parent(s). The United Nations recommended classification failed to identify lone parent families from married couples families.

63. Distinguishing young dependent children from "children" based strictly on genealogy is considered to be of primary importance in the classification of household types in the 1981 United Kingdom Census. The deficiency of the 1971 classification was the inadequacy of the classification to identify families by their "life-cycle stage". For example, a particular classification identified a household type as "lone parent with child(ren)" but it did not distinguish those with only young child(ren) - a particular case of social need where the lone

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15/ Alternatives to the "Head of Household". Concept for Characterizing a Household (Oslo, Central Bureau of Statistics, Population Census Division, 6 September 1977).

parents are single, separated or divorced - from those where the lone parent had less or different social needs and lived with married but economically independent child(ren). The classifications were thus of little assistance in the formulation or administration of government social policy. 16/

64. The proposed 1981 United Kingdom classification of household types for main general analyses has three main changes from the 52 categories of the 1971 classification. These changes are: (a) no analyses of households with two or more families are included, (b) no analyses of persons by relationship in no family households or of "other" persons in one family households are included, and (c) a "children" type categorization is included.

65. The standard household-type classification is a combination of three variables, namely:

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|--|--|
| (a) <u>Number of families:</u>   | (i) No families in household;  |
|  | (ii) One family in household;  |
|  | (iii) Two or more families in household.                             |
| (b) <u>Type of family:</u><br>(for one-family households only)                 | (i) Married couples, no children;                                    |
|  | (ii) Married couples with child(ren);                                |
|  | (iii) Lone parent with child(ren).                                   |
| (c) <u>Children types:</u><br>(for one-family households with child(ren) only) | (i) "Young" (all child(ren) are dependent);                          |
|  | (ii) "Growing" (at least one dependent child, one independent child) |
|  | (iii) "Mature" (all child(ren) are independent).                     |

66. When considering the basis for the 1981 United Kingdom classification the variable "number of children" was also given serious consideration but this factor was considered of secondary rather than primary importance. Moreover, the "type of family" categories distinguish the case of no children from that of one or more. The definition of a "dependent" child is currently a choice between either: "children in a family under school age" (16 in the United Kingdom) or "children in a family under school age or aged 16-19 and in full-time education".

67. The proposed United Kingdom classifications would consist of 11 categories, and utilization of the 1971 census results would show the following breakdown:

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16/ Classifications concerning the composition of Household Proposals for the 1981 Census in the United Kingdom (London, Office of Population Censuses and Surveys, August 1977).

<u>Composition of the family</u>	<u>Percentage of households in 1971 Census</u>
<u>No family</u>	
1. One person	
Pensionable age . . . . .	12.0
Not pensionable age . . . . .	6.0
2. Two or more persons . . . . .	4.0
<u>One family</u>	
1. Married couple with no children . . . . .	27.0
2. Married couple with child(ren):	
Young child(ren) . . . . .	28.0
Growing child(ren) . . . . .	6.0
Mature child(ren) . . . . .	9.0
3. Lone parent with child(ren):	
Young child(ren) . . . . .	1.4
Growing child(ren) . . . . .	1.4
Mature child(ren) . . . . .	3.8
<u>Two or more families</u> . . . . .	<u>1.4</u>
Total (all households)	100.0

68. The United Kingdom paper does not state whether "lone parents" would be identified by sex. Such an identification would be of considerable social importance and the category would probably contain a greater number of women than men as "lone parents".

C. Yugoslavia

69. In Yugoslavia a "housekeeping" definition of household is utilized.<sup>17/</sup> The family consists of "a married couple or parents/both or one/and children". One member "presumed to guide a household" is selected and the household schedule is filled in this person's name. The question of the number of families in a household is not directly asked at the enumeration stage but it is derived at the processing stage from responses to the question on the relationship of individual members of

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<sup>17/</sup> Population and Housing Census, 1971 (Belgrade, Federal Statistical Institute, 1974).

the households to the member described above. At the processing stage, families are classified into the following four groups: (a) married couples without children, (b) married couples with children, (c) mothers with children, and (d) fathers with children. A separate presentation of the results for each of these family types is provided for tabulations relating to reproduction, economic conditions, education etc.

#### D. Canada

70. For some time, Statistics Canada has been doing research on linkages between the family and housing universes. <sup>18/</sup> In 1971 the introduction of an accessible data base from which users could specify detailed tabulations led to many tables linking the census family with dwelling characteristics. Policy makers have been interested in such tables for better understanding of housing issues.

71. In the discussion of the "head of household" concept in section I above, it was indicated that Canada would, in its 1981 census, attempt to include the identification of the person or persons responsible in the household for maintaining the housing unit in addition to listing the household members as "person No. 1", "person No. 2" etc. and obtaining data on family relationships. The use of this additional item is designed not only to assist in making family assignments, at the editing stage, but also to provide an immediate linkage to the housing census data. Families could then be distinguished into "maintaining families", that is families that include the persons who maintain the housing unit and "non-maintaining families". Cross-tabulations with housing variables would become more meaningful as a clear link would exist between families and the type of housing in which they lived.

#### E. Latin America

72. A quick examination of tabulations of population censuses taken during the 1970 decade in countries in the Latin American region shows that only a few countries have considered the concept of the family as one to be investigated. Among those countries dealing in the census with family data, this was generally done by cross-classifying data on household and dwelling units by type by the characteristics of family entities that live in them. Nevertheless, in this region, census information on family structure is absolutely essential for policy makers, particularly those concerned with issues related to the role and status of women and their participation in development.

73. The fact that problems connected with the relationships of various persons in the family to the head of household etc., are not easy to solve, has been responsible for the lack of census data on the family, in spite of the need for

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<sup>18/</sup> G. E. Priest, Improving the Linkage between the Family and Housing Universes in the Canadian Census (Statistics Canada, Housing and Families group, August 1977).

such information. Some of the problems connected with household identification and definition in the censuses of Latin American countries have been discussed in detail in a study prepared by ECLA, entitled "La experiencia Latinoamericana en los censos de población de 1970 y orientaciones para los censos de 1980" (E/CEPAL/1052). It is recommended in the study that the household as a "unit of dwelling" would be preferable to the use of the household as a "unit of consumption" for the 1980 round of censuses.

74. The ECLA study proposes the same definition of nuclear families as the United Nations and IASI, but indicates possible advantages of widening the definition in the Latin American context. The United Nations census recommendations specifies that a "family nucleus consists of one or more of the following types (each of which must consist of persons living in the same household): (a) a married couple without children, (b) a married couple with one or more never-married children, (c) a father with one or more never-married children, or (d) a mother with one or more never-married children" (E/CN.3/515/Add.2, para. 80). One widening suggested by ECLA, at least for further study, would involve the possible use of the concept "not currently married" (comprising divorced, separated, widowed children in addition to never-married children) in place of the never-married criteria used in the United Nations definition.

### III. ECONOMIC ACTIVITY

75. Reliable data on the economic activities of the population are an important aspect of sound and well-planned development policies and programmes. For this purpose, these data should cover the activities of both men and women in both the "formal" and "informal" sectors of the economy. Reliable and comprehensive data of this type are also essential for developing and monitoring programmes concerned with the participation of women in development and the promotion of equality between the sexes.

76. The collection of reliable statistics on economic activity and related topics in population censuses and surveys is by no means a simple task. However, the general problems of measuring economic activity are beyond the scope of the present document, which limits itself to dealing with issues and problems of particular relevance to obtaining improved data on women. Despite the focus of this section on the economic activity of women, it must be remembered that: (a) improvements in measuring the economic activity of women contribute directly to improved data for the entire population and (b) reliable data for men, as well as for women, will be needed by Governments and others concerned with promoting improvement in the status of women.

77. In many developing countries, the economic and related activities of women take place mainly in the informal sector where the usual methods of measuring labour force participation and economic activity have encountered the most operational problems. In addition, sex-based stereotypes may result in the routine recording at the collection or processing stage of virtually all women, regardless of their actual activities, as "not in the labour force". As a result, the available data may not reflect a substantial proportion of the economic activity of women in many developing countries.

78. One example of the possible policy impact of such an inadequacy in the data base may be cited. In a number of developing countries, displacement of women workers from traditional work patterns by modernization and large-scale industrialization has been a subject of increasing social concern. To the extent that this displacement goes largely unnoticed in the official statistical system, great hardship and suffering to the women concerned and their families results. For instance, in one Asian country the setting-up of a single factory for the preparation of nylon nets threatened to displace 10,000 women workers who prepare fishing nets at home. Such displacement of women workers has also occurred in Latin America in the agricultural sector, due to the introduction of a dairy farm by a multinational corporation. <sup>19/</sup> These modernization programmes often have strong governmental support. Owing to an inadequate data base, planners fail to realize that such "improvements", which theoretically are intended to create employment opportunities, do in fact increase the difficulties of marginal families

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<sup>19/</sup> C. D. Deere, The Agricultural Division of Labour by Sex: Myths, Facts and Contradictions in the Northern Peruvian Sierra (Amherst, University of Massachusetts, Economics Department).

where the income derived by the women often maintains the family above the poverty line. Against this background of social realities and the need to assess not only the benefits but also the negative or unintended aspects of industrialization, the economic activity of women has to be more reliably measured.

79. In developed countries, too, the problem of measurement exists. For example, unemployment may be underestimated because women, who otherwise may have declared themselves as "looking for work", find it socially convenient to declare themselves as "housewives". Further, given the intrinsic difference in responsibilities at different life stages between men and women - the burden of child-rearing falling largely on women - and the lack of adaptation of the industrial sector to such realities as the need of child care centres etc., it is not surprising that many women may not be interested in working full-time. For this reason, the development of specific measures of "unemployment relating to part-time work" should receive consideration. Moreover, data on part-time work are particularly prone to the effects of sex-based stereotypes. Such part-time workers are more likely than full-time workers to be at home during the day when the survey interviewer visits the home. At this point, seeing a woman taking care of her noisy children, the survey interviewer is more likely to assume mistakenly that she is "not in the labour-force" and therefore not ask the prescribed labour force questions than would be the case if a man were found at home under comparable circumstances.

80. Although the international recommendations dealing with labour statistics have generally been free from the effect of sex-based stereotypes, 20/ at the operational level, in various countries, sex-biases have affected these data. Some of the sources of bias have already been briefly mentioned. One underlying conceptual problem stems from the fact that people frequently engage in two different sets of activities - one related to home-making and home-caring activities and another related to activities of an economically productive nature. Moreover, in the case of women in many developing countries, the latter set of activities usually relate to "unpaid" work. The United Nations recommendations on this issue are clear enough and stipulate that in classifying the population by activity status, participation in economic activity should always take precedence over participation in a non-economic activity. However, sex-based stereotypes operative in many countries would tend to result in the classification of women engaged in both "homemaking" and "economic" activities as outside the labour force, particularly where women perceive "home-work" as their main activity.

81. A further conceptual difficulty stems from the fact that the concept of "home-maker" as a non-economic activity has been questioned. Current research is being undertaken on the subject, the scope of which is beyond the framework of the present document. 21/ However, in connexion with this issue three points should be kept in

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20/ International Labour Office, International Recommendations on Labour Statistics, Geneva, 1976.

21/ See The Feasibility of Welfare-Oriented Measures to Supplement the National Accounts and Balances: a Technical Report (United Nations publication, Sales No. E.77.XVII.12); and "Future directions for work on the System of National Accounts (SNA)" (E/CN.3/541).



mind. First, analytical studies that attempt to estimate the economic value of home-making activities are possible without a major overhaul of the basic national accounting system of a country. Secondly, any modifications of the basic national accounting system of a country, particularly if they imply far-reaching changes, involve a long period of research and testing to ensure that the proposed changes do not impair the usefulness of the accounts data for a wide range of policy purposes. Thirdly, research efforts aimed at estimating the economic value of home-making and home-caring activities will need to take into account the "non-productive" activities of men as well as women in these areas.

82. The remainder of this section describes under the heading "Methodological problems" some of the difficulties in the collection of reliable data on the economic and related activities of women, and the time-use surveys, as a complement to usual census and survey methods, are briefly considered.

#### A. Methodological problems

83. Some of the problems related to census data on the labour force have been treated by Durand. <sup>22/</sup> A few results of his analysis on two types of reporting of female workers (that of agricultural labour force workers and that of unpaid family workers) are presented below.

84. Under-enumeration of female workers in the informal urban sector and the non-farm rural sector is not dealt with specifically. Problems arise in the informal urban sector owing to the fact that workers, particularly women, lack stable residence and employment. Non-farm economic activity of women in rural areas is of great importance because for cultural reasons this activity may be perceived and reported as "home-work".

85. Durand shows that under-reporting of female workers in agriculture exists in areas as diverse as the "North African countries", the "Latin American countries" and "North West European countries". He notes, however, that "it is in the less developed countries, of course, where agriculture occupies a major share of the total labour force that the errors and biases in enumeration of female agricultural workers have the greatest influence". Along the same lines, census data of women's agricultural participation in Latin American countries uniformly indicate that women's participation in agriculture is insignificant compared to men.

86. In 1940, in Peru, women made up 19 per cent of the economically active population; in 1972, they constituted only 9.6 per cent of the corresponding economically active population. Observing the actual time spent by women, Deere shows that, in Peru, as much as 86 per cent of women participated in agricultural work of the peasants households, whereas only 38 per cent were indicated when the questionnaires method was used. The use of actual number of days on agricultural

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<sup>22/</sup> John D. Durand, The Labour Force in Economic Development: A comparison of International Census Data (1946-1966), (Princeton, New Jersey, Princeton University Press, 1975).

work over the agricultural cycle showed that women spent an important fraction of the total number of agricultural labour days - up to about 21.4 per cent of the total number of days. 23/

87. With regard to under-reporting of unpaid family workers, Durand states that it is especially the females who assist without pay in the work of the family farms and other family-operated enterprises whose participation in the labour force goes to a large extent unreported in the censuses of many countries, while it is reported more fully in others. The number of female unpaid family workers shown by the census tabulations vary from less than 1 per cent of the female population 10 years of age and over in some countries to more than 50 per cent in others. 24/

88. The proportions of unpaid family workers should not be expected to be the same in all countries, since family enterprises play a much more important role in the economy in some countries than they do in others, and customs with regard to the participation of male and female family members in the work of such enterprises also vary. But the differences indicated by the census statistics are to a large extent unreal artifacts of the definitions and enumeration procedures and of reporting biases rooted in the institutions and values of different cultures. 24/

89. Boserup points out some consequences of sex-based stereotypes with regard to the enumeration of subsistence workers.

"The usual procedure now is to include all male subsistence producers in the national labour force, with the result that virtually all developing countries show more than 95 per cent, and sometimes as much as 99 per cent of men in the most active groups as belonging to the labour force. This system implies that male activity rates are largest in the least developed countries and decline with economic development, because the share of the youngest age groups who are undergoing education will be increasing and an increasing share of the oldest age groups become able to live on a pension or on financial support from children. But, if all countries include male subsistence producers in the national labour force, why do many of them follow a different practice for women in the result that both the percentage of women in the labour force and the changes in this percentage with economic development become distorted?" 25/

90. Problems in the implementation of internationally recommended concepts as well as changing definitions make international comparisons difficult and sometimes meaningless. Boserup, like Durand, notes that two different statistical procedures are used by different groups of developing countries regarding women:

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23/ Deere, op. cit.

24/ Durand, op. cit.

25/ E. Boserup, Women's Role in Economic Development (London, George Allen and Unwin, 1970).

"They either counted all or nearly all farmers' wives as members of the agricultural labour force, namely - Turkey and Thailand for instance, reported that about half the agricultural labour force was female. Other developing countries counted all farmers' wives as housewives. This group includes almost all North African and Latin American countries and has recorded a share of women in the agricultural labour force which amounted to a few percent only, probably those women who earned an independent income from agricultural work. The use of the first statistical system would mean that female activity rates decline in the process of urbanization, whereas an increase would be registered if the second system were used." 26/

91. The problems associated with using a reference period of one week in census questions on labour force activity has been widely recognized in connexion with agricultural workers given the seasonality of agricultural work. Because of the home-making and other activities of women their agricultural work may in some countries be even more intermittent than for men so that the difficulties of the one-week reference period may have a particularly adverse impact on data for women. The ECLA study referred to earlier (see paras. 73 and 74 above) discussed the issue in the context of all agricultural workers and suggested that studies be made with regard to longer reference intervals. This would be desirable for urban areas where a high percentage of economically active women engage in unstable occupations and in family enterprises. The United Nations census recommendations discuss the need for an additional reference period besides the one-week criterion and suggests that countries should take into account relevant regional recommendations.

92. Serious errors arise also from women's own perception of their work. They identify themselves as mothers and wives. Results from the Post Enumeration Survey (PES) carried out in Ghana after the 1960 Census showed that 45 per cent of the women enumerated in the census as "home-makers" were reported as "employed" in PES. 27/ This difference could be due to the fact that PES was conducted during the "on-season" and the census during the "off-farming season". However, if nothing else, the results clearly demonstrate the seasonal variability of women's economic activity.

93. The 1970 Population Census of Ghana made a special attempt to identify any economic activity of persons (primarily housewives) who might have otherwise been classified as "home-makers" by the census enumerators and the paid work of those who might otherwise have been classified as "unpaid family workers". In the Enumerator's Manual for the 1970 Census a "home-maker" is defined as "a person of either sex who was wholly engaged in household duties and was not paid for this work". The Manual goes on to state that:

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26/ Ibid.

27/ J. G. C. Blacker, "A critique of the international definitions of economic activity and employment status and their applicability in population censuses in Africa and the Middle East". Population Bulletin of the United Nations Commission for Western Asia, No. 14, June 1977, pp. 47-54.

"If such person traded one full working day in the four weeks preceding Census Night or worked regularly some hours daily or engaged in some other economic enterprise (e.g. worked on a farm or in a beer bar) or did any part time work (e.g. typing, dressmaking) for which the person was paid or did any work on the family farm or business for seven days or more without pay the person should NOT be classified as home-maker BUT should be grouped with the working population."

Furthermore, in connexion with its discussion of "those who worked", the Manual states that:

"All persons aged 10 years and over who worked without pay for seven days or more in an establishment or farm operated by a member of their family. This category of persons known as UNPAID FAMILY WORKERS includes the following:

"(i) Wives who during the reference period worked in their husband's store or farm or other economic enterprise. If these wives are paid they should not be classified as unpaid family workers or home-makers.

..." 28/

94. Data on economic activity, by sex, are usually presented at the national level. Serious efforts should be made to study labour force problems at the subnational level, since whole countries are often too heterogeneous with regard to cultural and social institutions. In Yugoslavia, for instance, in 1971 female activity rates calculated with respect to the population 10 years and over were 43.2 in the Republic of Slovenia and 12.0 in the autonomous Province of Kosovo. The national female activity rate of 36.9 masks the wide differences existing in the country with regard to women participation rates. Male activity rates do not exhibit such a wide difference - 73.0 and 62.1 being the highest and the lowest rates. 29/ Subnational statistical tabulations should be available to policy makers engaged in the alleviation of some of the underlying problems facing women in backward areas of a particular country.

95. Finally, data on economic activity are particularly likely to suffer from errors arising from the need to rely on information obtained from a proxy respondent (for example, the head of household, any adult person at home when the interviewer calls) rather than directly from the person concerned. For complex technical and logistical reasons, coupled with the widely held stereotype that men are engaged in economic work and women are not, the operation of this factor in many countries is likely to have a greater adverse impact on data for women than men, although in some countries this may not be the case.

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28/ Republic of Ghana, Enumerator's Manual, 1970 Population Census (Accra, Census Office, December 1969).

29/ Federal Statistical Institute. Population: Economic Characteristics (Total and Active Population, Results for Republics and Provinces). Population and Housing Census, 1971. Belgrade, 1974.

96. Several steps may be taken to reduce the over-all impact of the bias and its differential by sex, as well as to estimate its impact on the data. Such steps include: (a) employing relatively equal numbers of men and women as census and survey interviewers; (b) using self-enumeration procedures where this is practical; (c) including additional questions or probes in survey questionnaires aimed at catching those types of economic activities particularly subject to omission in proxy interviews; (d) from time to time, tabulating data by sex, separately for self-reports and proxy responses; and (e) from time to time, conducting intensive employment-type sample surveys in which proxy responses are not permitted. An intensive survey of this type is prohibitively expensive for most countries to undertake on a routine basis. However, such a survey can provide some indication of the biases encountered in surveys using less intensive questions and which permit proxy responses. Of course, individual countries will have to consider the relevance of each of the listed steps in light of their own data needs and field problems and, in line with good statistical practice, proposed new field procedures, questions and surveys would need to be tested before they were used in a full-scale field operation.

#### B. Time-use surveys

97. As discussed in paragraphs 83-96 above, many of the methodological problems associated with the traditional body of concepts and questions used to collect data on the economic characteristics of persons have a particularly adverse impact on data for women. One method that is being used both in developed and developing countries to evaluate how well the traditional concepts are functioning, to test proposed new concepts and to prepare comprehensive estimates of activity by type for men and women is the time-use survey.

98. In a number of developing countries, researchers are becoming increasingly aware of the value of collecting information on the allocation of time for all types of activities. Detailed time-use surveys permit great flexibility as to what is and what is not economic activity. Such an approach is useful for obtaining a more realistic estimate of actual work in societies where cultural norms inhibit married women from being recorded as "economically active". Thus, for instance, in some Islamic countries a male respondent might report his wife was doing "house work" in a traditional labour force survey whereas more detailed probing, particularly in the context of a time-use survey, would show that the women were actually spending several hours at home each day engaged in work that is clearly an economic activity as generally defined. The study by Deere, mentioned earlier, has shown the usefulness of the time-use approach with regard to the agricultural work done by women. 30/ (Time-use surveys can also produce lower estimates of economic activity than the traditional census or survey approach where erroneous classification of domestic activities as agricultural work occurred.) Because time-use surveys are particularly useful in picking up part-time work, and women's employment may frequently consist of part-time work, time-use surveys often will provide a better indication of the employment of women than these traditional approaches. 31/

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30/ Deere, op. cit.

31/ G. M. Standing, "Concepts of labour force participation and under utilization", working paper No. 40 (World Employment Programme Research Working Papers), (Geneva, International Labour Organisation, July 1976).

99. Time-use surveys have been used in developed countries for some time. "In market-economy countries, one line of study, based on general time-use statistics going back many years, has focused on the role of women in the household ... In centrally-planned economies, work on time-use studies also goes back to the 1920s. This work has been designed particularly to provide planners with statistics for improving the efficiency of labour utilization in all parts of society". (E/CN.3/519, para. 5).

100. One example of the relevance of time-use surveys to social policy and planning may be cited. A time-budget survey was carried out in Norway for the period 1971-1972. <sup>32/</sup> The prime goal of this survey was to provide a comprehensive description of the use of time in Norway. The whole country was divided into 86 sample areas outside Oslo and in a second stage of sampling, persons were drawn at random from individuals between 15 and 74 years of age living in Oslo and areas outside. There were 5,215 persons in the sample. They were assigned particular days to fill their time diaries. This covered the calendar year, September 1971 to 31 August 1972. Respondents were asked to report, in their own words, the most important activities in each time interval and the activity taking the longest time was to be reported. Between midnight and 6 a.m., half-hour and one-hour intervals were used; otherwise intervals of 15 minutes were used.

101. The Norwegian survey revealed that, among employed persons, men average two hours more a day in activities related to "income producing work, journey to work etc." compared to women (6.5 hours for men versus 4.5 hours for women). On the other hand, these employed women average over two hours more than employed men in household work and family care (2.0 hours for men versus 4.3 hours for women). The total number of hours spent on these two activity items was 8.5 hours for employed men and 8.8 hours for employed women. The time spent on other activity items are fairly similar for both men and women who are employed. Thus employed women still spent considerable time on household and family care activities, and it is the household work and family care component that makes the critical difference between employed men and women in the time spent on income producing and related activities. Similar results have been found in the 1959 time-use study conducted in the Union of Soviet Socialist Republics on urban women. <sup>33/</sup>

102. The Norwegian survey also found that non-employed women averaged 6.6 hours a day on household work and family care activities whereas men in the same category averaged only 2.6 hours. Non-employed men spent considerably more time in activities related to "income producing work", "leisure" and "education" than non-employed women. Child care centres for children would constitute one approach to "freeing" women for income-generating work. On the other hand, the "home work" of mothers could also be recognized as diminishing the State's need to provide such centres.

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<sup>32/</sup> The Time Budget Survey, 1971-1972, vol. I, Oslo, Central Bureau of Statistics.

<sup>33/</sup> Towards a System of Social and Demographic Statistics (United Nations publication, Sales No. E.74.XVII.8).

Family allowance could be considered, including pension benefits to women who are primarily home-makers. In any case, the availability of statistics on the use of time can have important impact on a variety of social policies and programmes concerned with the role and status of women.

103. The drawbacks of time-use surveys are that they require complex samples in time (and in space if they are to be nationally representative), require highly-trained interviewers and are difficult to code and edit. As a result, they are relatively expensive to carry out and need considerable time to complete. The insights, however, provided by such time-use surveys could supplement the information provided by censuses and questionnaire-type surveys. As noted in the report on the development of statistics of time-use "data /from time-use surveys/ provide a rare source of relatively detailed information over time on the extent of participation by women in all types of productive activity, inside and outside the household. Such data are particularly useful because (a) they cover household activities not usually covered by traditional concepts of labour force and of output, (b) time is a basic unit of measure, and at least conceptually amenable to a greater degree of disaggregation than traditional concepts of participation and non-participation, and (c) they provide more reliable measures of productive activity (in the traditional sense) in the household than traditional labour statistics, for example, artisan work and agricultural labour" (E/CN.3/519, para. 5).

104. On the other hand, an expert group meeting on the identification of the basic needs of women of Asia and the Pacific area, held at Teheran in December 1977, and convened by the United Nations Asian and Pacific Centre for Women and Development, took a negative view of time allocation studies. The meeting, entitled "Identification of Critical Needs of Women", observed that most research on women being funded from western sources focused on time allocation studies which, while acceptable in western academic circles, produces research results which are of little benefit to national planners.

105. While it is true that research in a number of developing countries has been influenced by funds from external sources, the identification of constraints imposed by funding agencies with the use of at least this particular technical method to obtain data on women seems to be unwarranted. The full range of the economic and related activities of women in developing countries is not easily measured by the usual survey or census methods. Moreover, as indicated in the report to the Statistical Commission on this subject, national statistical offices in many countries with centrally planned economies have carried out time-use surveys (E/CN.3/519, para. 5). It thus seems desirable to make use of this technique, as appropriate, to the data base needed to assess the role and status of women and their participation in development. For example, if the results of time-use studies covering work of women involved in "fetching water" and other traditional work or chores were available, national planners would be in a better position to arrange alternative and more productive use of women's time when planning rural development programmes.

#### IV. SELECTED OTHER ISSUES

106. In this section, a series of other issues relevant to improving the availability and usefulness of data needed to examine the role and status of women are discussed. Most of these topics are of special relevance to developing countries, but one, "staffing patterns" (see paras. 124-139 below), clearly should be of universal interest.

107. In large part, the need for dealing at greater length with problems in developing countries is that because of the relatively less developed statistical systems in most of these countries, problems related to sex biases affect a broader range of statistics than in developed countries. Although in most developed countries statistical systems exist that can largely satisfy the basic social and economic planning needs of these countries, the problems facing statistical systems in developing countries are often more basic and far reaching. These statistical offices often lack even basic technical and administrative staff. Due to financial constraints, transport and other logistic support are far from adequate. At the technical level, for example, maps and cartographic inputs are of poor quality and data-processing equipment is relatively old. It is against such a background that these developing countries will have to determine their priorities in terms of responding to requests for the collection of better data on women. In most developing countries, censuses and national surveys are the main sources of data, while administrative sources of data, such as the registration of vital events are often lacking or at best fractional in their coverage.

##### A. Total population and population by age

108. Basic population data are subject to many kinds of errors a number of which show no differential by sex. However, sex biases do exist in such data and some of the problems are reviewed here.

109. The sex ratio (number of males per 100 females) is unusually high in several South Asian countries. The Bangladesh Census of 1974 showed a ratio of 108. The Afghan Demographic Survey (1971-1973) estimated the sex ratio at 116. Reasons for these high values remain obscure in many countries and could be due to under-enumeration of females or higher female mortality. In fact, the 1974 Bangladesh data show age-specific under-enumeration of females, e.g., those in the marriageable age group. <sup>34/</sup> Higher female than male infant mortality has been noticed in connexion with Afghan data. In India, the sex ratio has been increasing steadily. Studies would indicate that under-enumeration alone is not sufficient to explain this phenomenon. In fact some authors believe that the improvement of health standards of females in India is not advancing at the same

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<sup>34/</sup> A. K. M. Rabbani, S. D'Souza and S. Rahman, "1974 Census estimates of fertility levels in Bangladesh", unpublished paper presented at Cox's Bazaar Seminar, Bangladesh, December 1976.



pace as that of males. 35/ These countries could be exceptions. In several ESCAP countries there has been a post-war rapid decline in mortality especially of females. Changing sex-ratios with implications for future social, political and economic status of women could result. Studies in Africa show that reported sex ratios do not necessarily represent the actual balance of the sexes. 36/

110. The Whipple's Index is a test used to examine age preferences for the digits "0" and "5" as compared to other digits. For Bangladesh, this index shows that the data are worse for females than for males. This of course could be due to lower educational levels attained by women there. The ages of women are often estimated by the interviewer using physical characteristics as well as marital and child-bearing status.

111. A basic technical study dealing with the assessment of demographic data has noted the following typical errors in age data of females in Africa, Indonesia and the Indian subcontinent:

"1. A tendency to overestimate the age of young children, contributing to the typical excess proportion at ages 5-9, and the relative deficit at 0-4.

2. A tendency to overestimate the age of girls 10-14 who have passed puberty, especially if they are married, combined sometimes, but not universally, with a tendency to underestimate the ages of girls 10-14 who have not reached puberty, causing a net transfer downwards across age 10, and contributing to the peak at ages 5-9.

3. A tendency towards overestimation like that affecting some of the 10-14 year olds, for females 15-19, 20-24 and 25-29, causing net upward transfers across ages 15, 20, 25 and 30 and causing deficits at 10-14 and 15-19, and excessive proportions at 25-29 and 30-34. This overestimation of age of young women may be caused by an unconscious upward bias associated with marriage and child-bearing, or from a mechanical assumption that women were married at some alleged conventional age at marriage and have then experienced an allegedly typical passage of time between marriage and first birth, and in each subsequent interbirth interval". 37/

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35/ M. K. Jain, "Growing imbalance in the sex composition of India", *Demography India*, vol. 4, No. 2, December 1975, pp. 305-315.

36/ W. Brass, et al., *The Demography of Tropical Africa* (Princeton, Princeton University Press, 1968).

37/ *Methods of Estimating Basic Demographic Measures from Incomplete Data* (United Nations publication, Sales No. E.67.XIII.2), p. 21.

### B. Marital status

112. A consistent feature of the population censuses in South Asia has been that the number of married women have exceeded the number of married men, usually 1,005 to 1,011 females to 1,000 males. It would be interesting to know whether the excess is due to polygamy and/or absence of husbands at the time of census, or merely erroneous information due to cultural reasons. However, this excess of women reported as currently married in the census as compared to men is encountered in a number of other countries. For example, in the 1970 round censuses carried out in such countries as Chile, Ecuador, Finland, Italy, Malaysia, Peru, the Republic of Korea, Romania and Turkey, among others, more women are reported as married than men. One source of this disparity may be that women in consensual unions, divorced and separated women and widows, refer to themselves as "married" to a greater extent than do men in these categories.

113. The categories divorced/separated/widowed are often combined under one heading for statistical convenience. Although there may be reasons for combining these groups in order to save publication space, the social circumstances of the women in each of these categories can be quite different. "Single mothers" also form a group of women, who often do not appear in the tables but represent an important group requiring assistance in some countries. For example, the 1970 Chilean Census reports 421,397 single mothers (that is, mothers who have never married and are currently not living in a consensual union).

### C. Education and literacy

114. The level of education of women is an important indicator for the understanding of the present and the future status of women in a country. Literacy rates are usually available for most countries of the world. Difference in literacy rates are quite large in the developing countries - women's rates being much lower than that of men. School attendance, the number of years of schooling and the highest level of education attained, are usually other educational characteristics that appear on census questionnaires. Although data on school attendance and at least aspects of the other topics may be obtained from administrative records, data derived from this source are frequently not available separately by sex. For this reason, in many developing countries, the use of censuses and surveys to collect data on topics related to education and literacy is particularly important to those interested in examining the role and status of women. Naturally, if information on these topics is obtained in a census or survey, the results should be made available to users separately by sex.

115. With the impetus towards universal education, successive censuses tend to show gains by women in literacy over the last decades. However, the fact that women are restricted either by choice or social customs to particular streams of education is not clearly brought out by census data. In this context, sample surveys of various types can be used to expand the information obtainable from censuses. For example, the 1973-1974 Ghana Teaching Surveys indicate that females enrolled in secondary schools, Forms IV to Upper VI, (inclusive) tend to

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concentrate in the arts stream whereas their male counterparts tend to be spread more evenly between the arts and science streams (among females 19 per cent reported as enrolled in the science stream and 69 per cent in the arts stream; for males the comparable figures were 43 per cent and 48 per cent, respectively). 38/

116. The importance of equality of educational opportunities as well as employment practices in the educational system has repercussions in various spheres of activity including sometimes the choice of enumerators for the population census. In some countries, where teachers are selected to collect census data (often because they represent the best-single source of a widely disseminated population meeting a minimum level of educational attainment), the fact that the proportion of women teachers in the rural areas is low implies that mostly male enumerators will be employed. This gives rise to a sex-based proxy-response bias in those societies where women are not ready or are not allowed to meet with male enumerators.

#### D. Migration

117. Migration studies assume great importance in developing countries where rapid and unplanned urbanization has been generally present. The selectivity of migrants is as important as the volume. The sex ratio of migrants is rarely the same as that of the residents of the urban areas into which they migrate. In countries of South Asia, rural-urban migrants are predominantly males, whereas in Latin America the proportion of women in the migration stream to cities is greater than that of men. Given the unstable character of the occupations, housing etc., available to migrants, especially women, it is important that development planners have at their disposal reliable data regarding migration. At the international level, studies on migrant women are also important. Women migrants from developing countries tend to adapt more slowly to the new cultural settings, than men, into which they have been immersed. For Asian immigrants to the United Kingdom for instance, languages are learnt more rapidly by men owing to their greater contact with the resident population, whereas women tend to be more restricted to a domestic setting. 39/

118. As Elizaga has noted, an important aspect of migration in Latin America is the fact that women in the young age groups form the majority of the migrants. Hence any study on data for women in such countries must deal with the question of migrants. 40/ Moreover, in Latin America there is a flow from the rural areas to the cities as well as interregional movements. Statistics, however, are not generally available to measure such movements. One source is census data on place

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38/ A. Smock, "The impact of education on women's roles: the case of Ghana" (Ford Foundation, 1976).

39/ V. S. Khan, "Asian women in Britain: strategies of adjustment of Indian and Pakistan migrants", Women in Contemporary India, Dr. A. De Souza, ed., New Delhi, 1975.

40/ J. C. Elizaga, "Migraciones, a las areas metropolitanas de America Latina", (Santiago de Chile, CELADE, 1970).

of birth or, in some developing countries, census questions on place of residence one or five years ago. Another way of estimating migration is through the rate of growth of the population. However, in most countries, particularly developing countries, this approach leaves such large margins of error, which, in some cases, will vary for males and females, as to have little applicability in the context of the present document. It is through sample surveys, however, that the information required for social welfare planning can be obtained. Such surveys have indicated that the characteristics of in-migrant women differ from those of women in the cities to which they migrate in terms of education, age-structure, and marital status, and with regard to employment, that women in-migrants tend to take part in manual labour and "personal services". See, for example, studies by Singh 41/ and Dirasse. 42/

#### E. Fertility and mortality

119. In developing countries even when serious efforts are made to collect accurate data on fertility and mortality, several problems inherent to the level of development exist, which vitiate the quality of the data. In a number of countries, vital registration systems do not exist, and where they do, the coverage of births and deaths is often quite low. It is against the background of such incomplete data that indirect estimation techniques have been developed. The use of stable and quasi-stable population methods have increased the value of even inadequate census data for the analysis of fertility and mortality data. Further, when information on children ever born and children surviving - the so-called Brass questions - are available, a wide range of analytical methods can be applied. 43/

120. The development of indirect methods does not eliminate the need for careful data collection and may conceal underlying problems due to the availability of appropriate model life tables etc., with a particularly adverse impact on the analysis of differentials by sex. A case in point is the Bangladesh Retrospective Survey on Fertility and Mortality (BRSFM) held in 1974 immediately after the 1974 Bangladesh Census. 44/

121. An important feature of the results shown in the report is that the expectation of life at birth for women is slightly higher than for men. The evidence of previous surveys in Bangladesh and the data for other South Asian

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41/ A. Singh, "Women and the family: coping with poverty in the bastis of Delhi" Social Action, New Delhi, Vol. 27, July-September 1977, pp. 241-265.

42/ L. Dirasse, "The socio-economic position of women in Addis Ababa: the case of prostitution", unpublished Ph.D. Thesis, Boston University, 1978.

43/ Brass et al., op. cit.

44/ Ministry of Planning, Census Commission, Report on the 1974 Bangladesh Retrospective Survey on Fertility and Mortality, Dacca.

countries indicate the contrary. Crucial to the results is the estimation of  $2q_0$ , the proportion of children dying by age 2, which BRSFM estimated as higher for males than for females. This result is open to criticism since the BRSFM report itself indicates that underreporting for female deaths is greater than for male deaths. <sup>45/</sup> This difference in underreporting was apparently not taken into account in the estimation of  $2q_0$ . Accordingly, the results presented in the BRSFM report related to differentials in life expectancy by sex must be treated with considerable caution.

122. Information on "children ever born" and "children surviving" is obtained by direct questions in censuses and surveys and may be derived from a detailed fertility history obtained in a survey. To improve overall reporting, as well as to estimate mortality differentials by sex, the questions on children ever born and children surviving are often asked separately for male and female children. However, the omission of female children who have died may be more frequent in countries where a higher value is placed on male children than on female children, resulting in more accurate reporting of both fertility and child mortality for males. At a 1977 ECWA meeting on census techniques held at Beirut, a recommendation was made in a paper, according to which breakdowns by sex of child should be accorded as "second priority" when Brass questions are proposed. <sup>46/</sup> In view of the importance of obtaining better data on mortality differentials by sex, particularly for childhood mortality, it would be extremely important to consider asking the "Brass questions" separately by sex, if they are used in a census or survey.

123. In his paper entitled "Characteristics of African demographic data", van de Walle presents a table showing that sex ratios derived from a retrospective question on children ever born increases with the age of the mother, implying greater omission of female children by older women in the 1940 and 1950 censuses in Mozambique and surveys in the Niger and Guinea. <sup>47/</sup> Similarly, the analysis of results of the retrospective questions used in the National Demographic Survey of Honduras shows that female infants were systematically omitted and deaths of female infants were even more seriously underreported. <sup>48/</sup> The impact of these omissions was that very low infant mortality rates for females were obtained. In one case, estimates of infant mortality from this survey were 139 per 1,000 live births for males and 92 per 1,000 live births for females. Results such as these

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<sup>45/</sup> Ibid., appendix 9-vi.

<sup>46/</sup> K. Hill, "Census data required for indirect methods of estimating demographic parameters 1980 round of censuses", ECWA, Expert Group Meeting on Census Techniques, 12-16 December 1977, Beirut.

<sup>47/</sup> Brass et al., op. cit.

<sup>48/</sup> K. Hill, G. Maccio, A. Packer and J. Somoza, National Demographic Survey of Honduras Methodology, Results, Indirect Estimates (Santiago de Chile, CELADE, 1977).

indicate the necessity for careful attention, both at the time of data collection and in applying any indirect estimation techniques used, to minimize the impact of sex biases.

#### F. Staffing patterns

124. In previous sections of the present document various kind of biases that impair the reliability and usefulness of data needed to examine the participation of women in development have been discussed. In some cases, technical improvements in terms of questions, concepts, tabulations etc. have been suggested for experimentation or use. The present section deals with an issue that may at first seem to be only an administrative issue, namely, staffing patterns within the national statistical system. However, the issue of whether women (and men) are participating on an equal basis in the various activities of a national statistical office (that is, field work, subject-matter areas, sampling and other technical services, processing, dissemination and other user services, overall management) can have important technical implications.

125. It should be stressed, moreover, that broader issues of social equity are involved. As the World Plan of Action for the Implementation of the Objectives of the International Woman's Year, adopted at the 1975 Mexico City Conference, stated:

"62. Governments should establish goals, strategies and time-tables for increasing within the decade 1975-1985 the number of women in ... appointive public offices and public functions at all levels.

"63. Special efforts to achieve these objectives could include:

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"(b) The issuance of special governmental instructions for achieving an equitable representation of women in public office, and the compilation of periodic reports on the number of women in the public service, and levels of responsibility in the areas of their work;

"(c) The organization of studies to establish the levels of economic, social and political competence of the female compared to the male population for recruitment, nomination and promotion;

"(d) The undertaking of special activities for the recruitment, nomination and promotion of women, especially to fill important positions, until equitable representation of the sexes is achieved". 49/

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49/ Report of the World Conference of the International Women's Year,  
(United Nations publication, Sales No. E.76.IV.1), chap. II, paras. 62 and 63.

The Declaration of Mexico on the Equality of Women and their Contribution to Development and Peace, 1975 adopted at the Conference referred specifically to the passage in the United Nations Declaration on the Elimination of Discrimination against Women that states: "discrimination against women is incompatible with human dignity and with the welfare of the family and of society, prevents their participation, on equal terms with men, in the political, social, economic and cultural life of their countries and is an obstacle to the full development of the potentialities of women in the service of their countries and of humanity". 50/

126. Such broad policy considerations, however important, are beyond the scope of this document. The present section, instead, reviews the question of staffing patterns in terms of the technical issues and problems involved.

127. Traditionally, women have been employed as census and survey interviewers in many developed countries partly because a pool of educated housewives exists which is available for part-time work. In developing countries, however, the use of women as interviewers is much less frequent. In some countries in the ESCAP and ECWA regions, women interviewers are employed, if at all, mainly in urban areas. Since much of the population in these countries lives in the rural areas, it is clear that the staffing pattern could be improved. The unduly high proportion of female interviewers used in some developed country labour force surveys is also undesirable. However, since this pattern of staffing undermines rather than reinforces sex-based stereotypes related to employment, it is almost certainly a less serious problem than relying on male interviewers almost exclusively (see paras. 95-96 above).

128. Afghanistan is an example of a country, where the use of women interviewers was essential to the conduct of a national demographic survey. As a population census had not yet been taken in the country, the Afghan Demographic Survey (ADS) conducted a national sample survey during the period 1971-1973, to obtain estimates of population size as well as data related to fertility behaviour.

129. When this survey was being planned it was realized that many of the questions could not be asked by male interviewers and the use of women interviewers was considered. Several objections were raised:

(a) The cultural context - a male dominated society with strong Islamic traditions - was not conducive to the use of women interviewers;

(b) Afghan women had rarely worked outside their homes. Logistics were difficult as many of the interview sites were villages in the mountains;

(c) Travel with male co-workers had not been done previously on a nation-wide level in Afghanistan. Further, as overnight stops would be required, special provisions would be needed for lodging women interviewers.

Against this background the appropriate selection of women interviewers and

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50/ Ibid., chap. I.

supervisors did, in fact, succeed in obtaining quality data on various aspects of fertility of women in Afghanistan that hitherto were not available. Women interviewers were able to enter homes and were generally well received. The extra financial cost involved -- as women had to go in pairs or required a male guide -- was considered justified by the type and quality of data being sought.

130. The Bangladesh Fertility Survey, organized under the auspices of the World Fertility Survey, also employed women interviewers and supervisors. Again, this was a survey specializing on a topic on which the women are clearly the best informed respondents and where male interviewers may have trouble interviewing them directly. Accordingly, the added expense of specially recruiting a staff of female interviewers for the survey was considered well justified. In Ghana, women are also being used in the Ghana Fertility Survey. However, the costs, and perhaps benefits, of using female interviewers for this purpose were considered to be less in Ghana since social mores allowed men and women to move freely in the country. In any case, the absorption of female interviewers and supervisors employed in fertility surveys into the ordinary statistical cadre should be seriously considered.

131. The problems of high sex-ratios in several countries, including those in the South Asian subregion were discussed in paragraphs 108-109 above. Quality control reinterviews and post-enumeration surveys (PES) which, in theory, are expected to obtain better data than the census, are often similar to the census in terms of the sex of the person obtaining the information. As a result, the PES is often unable to correct for sex selective under-enumeration in the areas where women tend to remain within the household when male interviewers are utilized. To help deal with this problem, female enumerators could be employed on a sampling basis, at least in the PES, if not the census itself. Correction factors could then be developed by comparing data obtained by the women interviewers with that obtained by the male interviewers who may have to collect the data outside the homestead or compound.

132. It is also important that tabulations of PES results should be made separately by sex. Failure to do this has often meant that population totals are adjusted after a PES but that the sex-ratios remain distorted.

133. In some countries, data regarding migration and the economic activity of women are also better done by women interviewers. It is often difficult for male interviewers to have direct access to the living quarters of single migrant women in urban areas. Such women, especially in the informal urban sector, will often be missed from enumeration. With regard to economic activity the ability to distinguish between housework and secondary occupations of economic significance requires types of questions or lengths of interviews that may be difficult for men to obtain from female respondents.

134. The logistical difficulties involved in employing female interviewers and supervisors in the rural parts of some countries, particularly developing countries are real, but these problems are not necessarily intractable. First, the difficulties of security and accommodation can be addressed directly with a realistic assessment of the costs involved in coping with them. In carrying out



this assessment, the experiences of other government programmes, such as health or rural development, that maintain female workers in the field should be sought. In addition, the views of possible female interviewers should be sought about what are and what are not acceptable working conditions so that those making the managerial decisions will be in a position to make as realistic an assessment as possible. Secondly, internal variations within a country in terms of social attitudes and patterns of human settlement, may enable a country to begin a phased approach to integrating women into the regular survey field-force. Thirdly, the entire issue can usefully be reviewed on a periodic basis, since social changes and developmental activities, as well as the experiences of other governmental agencies, may lessen the difficulties involved or suggest ways of dealing with them more effectively.

135. The special logistical problems associated with the employment of women as interviewers and field supervisors in some countries are rarely, if ever, significant when it comes to employing women in a professional and managerial capacity in the national statistical system. On the contrary, a statistical office has everything to gain by employing women, as well as men, as members of its professional and managerial staff in view of the fact that women comprise about half of the population covered in population censuses and household and related surveys and that government agencies and research institutions concerned with the improvement in the status of women are becoming more articulate and important as users.

136. Certainly, women themselves are not necessarily free from sex-based stereotypes. Nevertheless, they should, on the average, be in a better position, based on their own personal experience, to be sensitive to many of the technical issues discussed in this document, such as those related to data on economic activity, than their male counterparts. In offices where few women (or men) are working on planning the content of collection efforts, developing the sampling plans and other procedures for data collection, participating in developing, editing and coding instructions and supervising their execution, designing tabulation plans and so on, there is a greater likelihood that the work and the output of the statistical office will suffer than if relatively equal numbers of men and women are engaged in these functions.

137. Indeed, in many developed and developing countries both men and women are being employed in their national statistical agencies on a basis of full equality. In a number of countries, again both in the developed and developing regions, the head of the national statistical system or those with senior technical or subject-matter responsibility in the system have been women.

138. However, such a pattern is by no means universal. In some countries, almost no women are employed in a professional capacity in the national statistical office, while in others, those women who are employed are concentrated almost exclusively in one unit within the office. No doubt such situations arise, at least in part, because of overall societal factors; for example, the relatively small number of women as compared to men receiving advanced education in many developing countries; while among those women who do go on to advanced studies, only a small proportion may be in fields that would best prepare them, or even

qualify them, for work in the national statistical system. To help overcome such societal problems, some statistical offices have initiated special recruitment efforts, including student intern programmes, aimed at increasing the number of qualified women professionals in the office.

139. Over and above broad societal factors, there may be specific personnel and recruitment practices within some statistical offices that discourage qualified women from seeking employment there. If such practices have existed for sometime, persistent efforts by senior management of the office may be required to eliminate them. Clearly, such discriminatory practices are incompatible with generally-accepted principles of social equity relating to non-discrimination in employment. As discussed above, these practices can also adversely affect the public image and the output of the statistical system.

## V. CONCLUSIONS

140. As indicated in the preface and the introduction, the present document is intended to stimulate discussion and consideration, particularly at the national level, of how to improve statistics needed for policy and research related to the role and status of women, their participation in development and equality between the sexes. Because the area is an evolving one, the problems and possible solutions vary greatly among countries and as the consultancy assignment on which this document is based was relatively brief, it was not possible to draw up a comprehensive and detailed set of recommendations. Instead, a number of the conclusions drawn from material presented earlier in the document are listed below for the convenience of the reader. Those interested should consult the previous sections of this document to obtain some understanding of how these conclusions were reached and the important interrelationships among them.

141. The main conclusions are as follows:

(a) A variety of cultural and social factors may be the source of sex-based stereotypes. These sex-based stereotypes, along with a number of technical factors associated with the process of data collection, can adversely affect the quality of data. Special efforts are often required to prevent or minimize the impact of these sex-linked biases, which often have a particularly adverse impact on data for women.

(b) In line with the World Plan of Action adopted at Mexico City in 1975, special emphasis will need to be placed on obtaining data on the participation of women in the development process, along with comparable data for men. The need for comparable data for men and women arises from the need to examine issues related to equality between the sexes.

(c) An important means of achieving these ends is for producers of official statistics and those interested in using these data in connexion with examining the role and status of women and related issues to meet periodically to discuss user needs and priorities and how the work programme of the national statistical office might most effectively and efficiently respond to them.

(d) The planning of major statistical undertakings, such as a population and housing census, should involve an explicit consideration of steps that can be taken to maximize the usefulness of the data that will be produced for policy making and research pertaining to women as well as to minimize the impact of sex-based stereotypes and sex-biases on the data obtained. For example, an illustrative check-list is provided in the table below of a series of important actions, linked to various points in a census calendar, that could be taken in order to ensure that the census is carried out in close accord with the goals of the United Nations Decade for Women.

Illustrative check-list for use in connexion with planning  
a population census

Census event	Required action
1. Legal framework drafted and enacted	Draft census law should be reviewed to eliminate any legislatively mandated sex-based stereotypes, particularly related to the concept "head of household".
2. Constitution of the Technical Advisory Committee (TAC)	Women should form part of TAC.
3. Consultation with the data users	Government agencies and research organizations dealing with women's problems should be among agencies consulted. Questionnaire and tabulation design requirements corresponding to the data needs of these organizations should be studied.
4. Census pre-test programme	Experimentation with appropriate "head of household" and "economic activity" concepts should be made. The possibility of collecting family data corresponding to "life stage" should be investigated.
5. Recruitment of the key personnel (policy, field work, data processing)	Staffing patterns should be examined so as to include women in all aspects of the census.
6. Pre-census publicity	Publicity should include examples of working women, families headed by women etc. in addition to more "traditional" family groupings.
7. Training programme	Enumerator and supervisor training materials should help field workers overcome any sex-based stereotypes they may hold and deal with other problems encountered in enumeration that may contribute to sex-biases.
8. Coding and editing	Coding and editing plans should be reviewed to ensure that inappropriate sex-based coding or editing decisions are not specified. The actual implementation of the coding and editing work should be monitored to ensure that unbiased practices are maintained.

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Census event	Required action
9. Post Enumeration Survey (PES)	Tabulations of PES should be made separately by sex. In regions with high sex ratios, sex-specific correction factors should be developed when women interviewers are used.

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(e) The composition of the field force (that is, population census and household survey interviewers and their immediate supervisors) should be as equally balanced between men and women as possible. In particular, the use of women as interviewers is important in countries where the use of male interviewers implies that information on virtually all women is obtained through proxy reports. If logistic or cultural problems inhibit the use of women interviewers, both men and women should be employed as interviewers in a Post Enumeration Survey (PES) or similar evaluation programme so the possible impact of biases related to the sex of the interviewer can be studied.

(f) Many statistical offices in both developed and developing regions employ both men and women in their professional and managerial staff in all aspects of the work of the office. Such a policy is not only in accord with the principles of United Nations Decade for Women but also can contribute to the technical capacity of a statistical office.

(g) Tabulations for most of the important characteristics obtained in the population and housing census should be produced separately by sex as a matter of first priority. By the same token, results of the census PES should also be shown separately by sex.

(h) Plans for population census and other data bases should be developed in consultation with research institutes and other users concerned with the role and status of women and related issues. These consultations would certainly indicate that sex should be included as a basic item in the data base but also might suggest the need to produce tabulations in terms of certain derived variables, such as family life-stage, which may be required for social welfare planning in some countries.

(i) A national statistical agency can benefit by collaborating with research institutions working in this area in the development and testing new concepts and methods to be employed by the statistical agency. The research institutions are often particularly well suited to carry out small-scale micro-studies involving case-studies or participation-observation methods.

(j) It must be stressed, nevertheless, that in the case of most developing countries, the primary cause of insufficient and unreliable data on the role and status of women and related topics is the lack of an adequately developed statistical infrastructure. In these countries significant progress toward increasing the availability of statistics needed to assess women's participation in

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development will depend, to a major extent, on programmes such as the National Household Survey Capability Programme, the World Population and Housing Census Programme and the World Programme for the Improvement of Vital Statistics and related multilateral and bilateral technical co-operation activities. While the situation of the statistical services in most developed countries is considerably better, the statistical offices in these countries also face resource constraints.

(k) Finally, the elimination of the effects of sex-based stereotypes and sex-biases from the national data system of a country will not only improve the statistics needed by those concerned with the realization of the goals of the United Nations Decade for Women but also will improve the data used for many other purposes.

Annex

CONSULTANT'S ITINERARIES AND ACKNOWLEDGEMENTS

Itinerary No. 1 (9 November-21 December 1977)

<u>Dates</u>	<u>Organization(s) visited</u>
10-12 November	Statistical Division, Economic Commission for Europe, Geneva, Switzerland.
14-16 November	Central Bureau of Statistics, Oslo, Norway. Likestillingsradet, Oslo.
16-20 November	National Central Bureau of Statistics, Stockholm, Sweden.
20-22 November	Central Statistics Office, Warsaw, Poland.
22-25 November	Federal Statistical Office, Belgrade, Yugoslavia.
28-30 November	Office of Population Censuses and Surveys, London, United Kingdom. Department of Employment, London.
30 November-7 December	United Nations Statistical Office, New York, United States of America. United Nations Centre for Social and Humanitarian Affairs, New York City. The Ford Foundation, New York City. Office of Population Research, Princeton University, Princeton, N.J.
7-9 December	United States Bureau of the Census, Suitland, Md.

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<u>Dates</u>	<u>Organization(s) visited</u>
10-14 December	Women in Development Office, Agency for International Development, Washington, D.C.  Inter-American Statistical Institute, Washington, D.C.  Institute Nacional de Estadísticas, Santiago, Chile.  Statistical Division, Economic Commission for Latin America, Santiago.  Demographic Centre for Latin America (CELADE), Economic Commission for Latin America, Santiago.
14-18 December	Instituto Nacional de Estadísticas Y Censos, Buenos Aires, Argentina.  Centre de Estudios de Población, Buenos Aires.
18-21 December	Instituto Brasileiro de Geografia e Estatística, Rio de Janeiro, Brazil.  Departamento de Estados de População, Rio de Janeiro.  Instituto Universitario de Pesquisas de Rio de Janeiro, Rio de Janeiro.

Itinerary No. 2 (17 April-11 May 1978)

<u>Dates</u>	<u>Organization(s) visited</u>
18-21 April	Statistical Division, Economic Commission for Africa, Addis Ababa, Ethiopia.  Population Division, Economic Commission for Africa, Addis Ababa.

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<u>Dates</u>	<u>Organization(s) visited</u>
	Institute of Development Research, Addis Ababa University, Addis Ababa.
11-25 April	Central Bureau of Statistics, Nairobi, Kenya.  Ford Foundation, Nairobi
25-28 April	Central Bureau of Statistics, Accra, Ghana.  Regional Institute for Population Studies, University of Ghana, Legon.  National Council on Women and Development, Accra.
1-3 May	Direction des statistiques et de la comptabilité nationale, Algiers, Algeria.  AARDES, Algiers.
3-6 May	Central Agency for Public Mobilization and Statistics, Cairo, Egypt.
6-9 May	Population Division, Economic Commission for Western Asia, Beirut, Lebanon.
9-11 May	Statistical Centre of Iran, Teheran, Iran.  Asian and Pacific Centre for Women and Development, Teheran.

Extensive comments and materials were provided during the course of these visits as well as by correspondence. In addition to the agencies mentioned above, the national statistical offices in Canada and Jamaica were most helpful in providing material as were the Statistical Divisions of the International Labour Office and the World Health Organization.

The present report could not have been prepared without the generous co-operation and assistance of numerous individuals in the national, regional and international agencies whose help was sought at one stage or another in the preparation of the document. This co-operation and assistance are gratefully acknowledged.

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