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**PRINCIPLES
AND RECOMMENDATIONS
FOR POPULATION AND
HOUSING CENSUSES**

UNITED NATIONS

DEPARTMENT OF INTERNATIONAL ECONOMIC AND SOCIAL AFFAIRS
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**PRINCIPLES
AND RECOMMENDATIONS
FOR POPULATION AND
HOUSING CENSUSES**



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PREFACE

The Principles and Recommendations for Population and Housing Censuses were adopted by the United Nations Statistical Commission at its twentieth session in February-March 1979. They are intended as a guide to help countries in planning and carrying out population and housing censuses in the coming years. Similar recommendations had been issued in the past serving the same purposes in connexion with the 1970 World Programmes of Population and Housing Censuses and the 1960 World Census Programmes. They include the Principles and Recommendations for the 1970 Population Censuses, 1/ the Principles and Recommendations for the 1970 Housing Censuses, 2/ the Principles and Recommendations for National Population Censuses, 3/ and the General Principles for a Housing Census. 4/

The present recommendations have been developed over a period of years by a process of consultation between the United Nations, the regional commissions and individual countries. The Commission first considered revision of the recommendations for the 1970 population censuses 1/ and the recommendations for the 1970 housing censuses 2/ at its eighteenth session, in 1974. At that time, the Commission accepted the proposal that the regional commissions should take the lead in developing recommendations for the 1980 census programme, particularly with respect to the topics to be covered, while the Statistical Office would attempt to compile and analyse material on national census experience relating to the organization, timing, staffing and costs of various census operations, with a view to preparing appropriate guidelines and recommendations on these matters. Furthermore, the Commission decided that there should be an interim report on the subject at its nineteenth session, in 1976, and that it should receive final consideration at its twentieth session. Also, the Commission unanimously approved a draft resolution entitled "1980 World Population and Housing Census Programme", subsequently adopted by the Economic and Social Council, with additional paragraphs, as resolution 1947 (LVIII), in which the Council recommended, inter alia, "that Member States undertake to carry out population and housing censuses during the period 1975-1984 and that they take into account international recommendations relating to population and housing censuses ...".

At its nineteenth session, the Commission considered an interim report on the census recommendations and requested the Secretary-General to circulate a part of the report, amended to reflect the Commission's views, for the consideration of Member States in planning their censuses. Accordingly, the document entitled "Interim report on the United Nations recommendations for the 1980 population and housing censuses" (ST/ESA/STAT/91) was issued in June 1977 and given wide circulation.

1/ United Nations publication, Sales No. 67.XVII.3.

2/ United Nations publication, Sales No. 67.XVII.4.

3/ United Nations publication, Sales No. 58.XVII.5.

4/ United Nations publication, Sales No. 58.XVII.8.

Taking into account the interim views expressed by the Statistical Commission at its nineteenth session and the views expressed by the Population Commission at its nineteenth session, as well as the views of the regional commissions and of the Inter-American Statistical Institute expressed in connexion with the various regional meetings on the census programme, the Statistical Office prepared a set of draft recommendations, which were submitted to the Expert Group on Global Recommendations for the 1980 Population and Housing Censuses, which met at United Nations Headquarters from 16 to 24 January 1978.

After providing detailed comments and suggestions for revision, the Expert Group concluded that it "considered that the draft recommendations for population and housing censuses, amended in the light of its comments, were suitable for submission to the Statistical Commission at its twentieth session. It also considered that the draft recommendations, as so revised, were suitable for circulation to countries, particularly developing countries, to assist them in planning for their forthcoming population and housing censuses" (ESA/STAT/AC.6, para. 127).

The draft recommendations, considered by the Commission at its twentieth session and circulated widely as document E/CN.3/515 and Add.1-3, were therefore a second draft reflecting the comments of the Expert Group. In accordance with the action taken by the Commission at its twentieth session, the present publication is based on that draft, modified as required, in accordance with its discussions and conclusions.

The present recommendations differ from the recommendations adopted in connexion with the 1970 World Population and Housing Census Programmes in four major respects. First, the recommendations for both population and housing censuses are contained in a single volume, as appropriate to a combined programme, rather than being treated in two separate volumes as was the case in the previous decade.

Secondly, the recommendations omit in the title any reference to a specific year. The decision to omit a reference to any specific year reflects the move away from an emphasis on international simultaneity in census taking, as reflected in decisions of the Statistical Commission at its eighteenth session. It also brings the treatment of the population and housing census recommendations in line with that of United Nations recommendations in most other fields of statistics, which remain in force until the Statistical Commission considers that revisions are warranted. Future revisions of these principles and recommendations will be issued as revisions to the present publication (Rev.1 etc.).

Thirdly, the chapters of the principles and recommendations dealing with the operational aspects of the population and housing censuses (Part One) have been substantially revised and expanded to reflect recent technical and policy developments related to census taking. In addition, a large number of revisions have been introduced in an effort to make these portions of the recommendations more directly oriented towards the needs and circumstances of developing countries.

Fourthly, with respect to census content, a number of basic decisions had to be made in order to ensure that the global recommendations would complement and not supersede those made at the regional level. An approach recommended by the Expert Group has been followed in Parts Two and Three of this publication. The recommendations distinguish among (a) topics recommended as priority topics by a

majority of the regions, (b) topics that, while not falling in group (a), were included by a majority of the regions when both priority and "other useful" topics were taken into consideration and (c) topics that, while not falling into either of the preceding groups, were mentioned in the recommendations of at least one region. The lists of topics included in groups (a) and (b) with definitions and specifications provided for all topics thus shown are given in chapter V. The list of topics included in group (c) is given in annex I to the present publication.

Despite these differences, there is considerable continuity between the present recommendations and those adopted for the 1970 census programmes, particularly with respect to census content. Indeed, the Statistical Commission, at its nineteenth session, noted that there was an emerging consensus that the recommendations on census content adopted for the 1970 World Population and Housing Census Programmes and their regional variants remained largely valid for the 1980 Programme.

In adopting the present recommendations at its twentieth session, the Statistical Commission "stressed that a population and housing census should not be viewed as an isolated statistical activity but rather should be conceived as an element of an integrated statistical system that included household sample survey as well as statistics obtained from administrative sources".

This view has important and numerous implications for population and housing censuses and for other statistical operations carried out by a country. The implications for the census are discussed at several places in the present publication (see particularly paras. 1.11-1.42 and 1.214-1.216). Since a population and housing census often forms the starting point for work on major national statistical development activities, such as the establishment of a permanent national household survey capability (ST/ESA/STAT.92/Rev.1) or an integrated statistical data base, ^{5/} it is important that the planning for these censuses and other statistical undertakings be closely co-ordinated.

It should be stressed that a continuing co-ordinated programme of data collection and compilation can best be served if the relationship among the population census, the housing census and other statistical investigations is considered when census planning is under way and if consistent concepts and definitions throughout the integrated programme of data collection and compilation are used. For this reason, the recommendations in this volume on educational attainment and educational qualifications make use of categories of the International Standard Classification of Education (ISCED) issued by the United Nations Educational, Scientific and Cultural Organization (see chap. V, sect. C); and the recommendations on occupation and industry classifications make use of the latest revision available of the International Standard Classification of Occupations (ISCO) issued by the International Labour Office, and of the International Standard Industrial Classification of All Economic Activities (ISIC) issued by the United Nations (see chap. V, sect. C). Census authorities in each country would wish to make use of the national version of each of these classifications, where they exist, to ensure that the population and housing census

^{5/} The Development of Integrated Data Bases for Social, Economic and Demographic Statistics (United Nations publication, Sales No. E.79.XVII.14).

will contribute, to the maximum extent possible, to national statistical development and integration. For a further discussion of various aspects of these issues, see Studies in Integration of Demographic and Social Statistics, 6/ Improving Social Statistics in Developing Countries: Conceptual Framework and Methods 7/ and volume I of the Handbook of Statistical Organization. 8/

6/ United Nations publication, Sales No. E.79.XVII.4.

7/ United Nations publication, Sales No. E.79.XVII.12.

8/ United Nations publication, Sales No. E.79.XVII.17.

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Part One

Operational aspects of population and housing censuses

I. DEFINITIONS, ESSENTIAL FEATURES AND USES OF POPULATION AND HOUSING CENSUSES

A. Definitions

1. Population census

1.1. A population census is the total process of collecting, compiling, evaluating, analysing and publishing or otherwise disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country or in a well-delimited part of a country.

1.2. Population is basic to the production and distribution of material wealth. In order to plan for, and carry out, economic and social development, administrative activity or scientific research it is necessary to have reliable and detailed data on the size, distribution and composition of population. The population census is a primary source of these basic bench-mark statistics, covering not only the settled population but homeless persons and nomadic groups as well. Data from population censuses may be presented and analysed in terms of statistics on persons, married couples, families and households and for a wide variety of geographical units ranging from the country as a whole to individual small localities or city blocks.

2. Housing census

1.3. A housing census is the total process of collecting, compiling, evaluating, analysing and publishing or otherwise disseminating statistical data pertaining, at a specified time, to all living quarters 1/ and occupants thereof in a country or in a well-delimited part of a country.

1.4. The census must provide information on the supply of housing units together with information on the structural characteristics and facilities that have a bearing upon the maintenance of privacy and health and the development of normal family living conditions. Sufficient demographic, social and economic data concerning the occupants must be collected to furnish a description of housing conditions and also to provide basic data for analysing the causes of housing deficiencies and for the study of possibilities for remedial action. In this connexion, data obtained as part of the population census, including data on homeless persons, are often used in the presentation and analysis of the results of the housing census.

B. Essential features

1.5. The essential features of population and housing censuses are individual enumeration, universality within a defined territory, simultaneity and defined periodicity.

1/ For the definition of "living quarters", see para. 3.41.

1. Individual enumeration

1.6. A "census" implies that each individual and each living quarters are enumerated separately and that their characteristics are separately recorded. Only by this procedure can the data on the various characteristics be cross-classified. Individual enumeration does not preclude the use of sampling techniques for obtaining data on specified characteristics, provided that the sample design is consistent with the size of the areas for which the data are to be tabulated and the degree of detail in the cross-tabulations to be made.

2. Universality within a defined territory

1.7. The census should cover a precisely defined territory (e.g., the entire country or a well-delimited part of it). The population census should include every person present and/or residing within its scope, depending upon the type of population count required. The housing census should include every living quarters irrespective of type.

3. Simultaneity

1.8. Each person and each living quarters should be enumerated as nearly as possible in respect of the same well-defined point of time and the data collected should refer to a well-defined reference period. The time-reference period need not, however, be identical for all of the data collected. For most of the data, it will be the day of the census; in some instances, it may be a period prior to the census.

4. Defined periodicity

1.9. Censuses should be taken at regular intervals so that comparable information is made available in a fixed sequence. A series of censuses makes it possible to appraise the past, accurately describe the present and estimate the future. It is recommended that a national census be taken at least every 10 years. Some countries may find it necessary to carry out censuses more frequently because of the rapidity of major changes in their population and/or its housing circumstances.

1.10. The census data of any country are of greater value nationally, regionally and internationally if they can be compared with the results of censuses of other countries that were taken at approximately the same time. Therefore, countries may wish to undertake a census in the years ending in "0" or as near to those years as possible. It is obvious, however, that legal, administrative, financial and other considerations often make it inadvisable for a country to adhere to a standard international pattern in the timing of its censuses. In fixing a census date, therefore, such national factors should be given greater weight than the desirability of international simultaneity.

C. Uses in an integrated programme of data collection and compilation

1.11. Population and housing censuses are a principal means of collecting basic population and housing statistics as part of an integrated programme of data collection and compilation aimed at providing a comprehensive source of statistical information for economic and social development planning, for administrative

purposes, for assessing conditions in human settlements, for research and for commercial and other uses.

1.12. The value of either census is increased if the results can be employed together with the results of other investigations, as in the use of the census data as a base or bench-mark for current statistics, and if it can furnish the information needed for conducting other statistical investigations. It can, for example, provide a statistical frame for other censuses or sample surveys. The population census is also important in developing the population estimates needed to calculate vital rates from civil registration data (see paras. 1.39-1.41 below). In addition, these censuses are a major source of data used in official compilations of social indicators, particularly on topics that usually change slowly over time. 2/ The purposes of a continuing co-ordinated programme of data collection and compilation can best be served, therefore, if the relationship among the population census, the housing census and other statistical investigations is considered when census planning is under way and if provision is made for facilitating the use of the census and its results in connexion with such investigations. The use of consistent concepts and definitions throughout an integrated programme of data collection and compilation is essential if the advantages of these relationships are to be fully realized.

1.13. A population and housing census also serves as the logical starting place for work on the organization and construction of a computerized statistical data base to serve continuing national and local needs for data in the intercensal period. 3/

1. Uses of population censuses

(a) Uses for policy-making, planning and administrative purposes

1.14. The fundamental purpose of the population census is to provide the facts essential to governmental policy-making, planning and administration. Information on the size, distribution and characteristics of a country's population is essential to describe and assess its economic, social and demographic circumstances and to develop sound policies and programmes aimed at fostering the welfare of a country and its population. The population census, by providing comparable basic statistics for a country as a whole and for each administrative unit and locality therein, can make an important contribution to the over-all planning process and the management of national affairs. Population census results are also used in policy development and in management and evaluation for programmes in such fields as education and literacy, employment and manpower, family planning, housing, maternal and child health, rural development, transportation and highway planning,

2/ See, for example, Social Indicators: Preliminary Guidelines and Illustrative Series, Statistical Papers, Series M, No. 63 (United Nations publication, Sales No. E.78.XVII.8).

3/ For a fuller discussion of many of the technical and policy issues that arise in the construction and use of integrated statistical data bases, see The Development of Integrated Data Bases for Social, Economic and Demographic Statistics, Statistical Papers, Series F, No. 27 (United Nations publication, Sales No. E.79.XVII.14).

urbanization and welfare. Further and more specific examples are given in chapter VI of Part Two, along with references to appropriate manuals and guidelines.

1.15. One of the most basic of the administrative uses of census data is in the demarcation of constituencies and the allocation of representation on governing bodies. Detailed information on the geographical distribution of the population is indispensable for this purpose. Certain aspects of the legal or administrative status of territorial divisions may also depend on the size of their populations.

(b) Uses for research purposes

1.16. In addition to serving specific governmental policy purposes, the population census provides indispensable data for the scientific analysis and appraisal of the composition, distribution and past and prospective growth of the population. The changing patterns of urban-rural concentration, the development of urbanized areas, the geographical distribution of the population according to such variables as occupation and education, the evolution of the sex and age structure of the population, and the mortality and natality differentials for various population groups, as well as the economic and social characteristics of the population and labour force, are questions of scientific interest which are of importance both to pure research and for solving practical problems of industrial and commercial growth and management.

(c) Uses for business, industry and labour

1.17. In addition to those given above, the census has many important uses for individuals and institutions in business, industry and labour. Reliable estimates of consumer demand for an ever-expanding variety of goods and services depend on accurate information on the size of the population in subnational areas and its distribution at least by age and sex, since these characteristics heavily influence the demand for housing, furnishings, food, clothing, recreational facilities, medical supplies and so forth. Furthermore, the local availability of labour for the production and distribution of such commodities and services may be important in determining the location and organization of enterprises.

2. Uses of housing censuses

(a) Uses for development of bench-mark housing statistics

1.18. The Statistical Commission at its ninth session directed the attention of national statistical services to "the need to develop from housing censuses, the sort of bench-mark statistics in housing that could be supplemented by current building and construction statistics and which would provide a continuous up-to-date picture of the housing position needed for the consideration of housing programmes". ^{4/} Since not all the basic information required to assess housing needs or to formulate housing programmes can be obtained through a housing census, additional data must be obtained through the population census, special housing surveys and environmental surveys and from vital statistics, economic statistics and so forth; but data obtained from the housing census will constitute the basic

^{4/} Official Records of the Economic and Social Council, Twenty-second Session, Supplement No. 7 (E/2876), para. 117.

framework within which the estimates will be made, indices computed and further statistical inquiries planned.

(b) Uses for the formulation of housing policy and programmes

1.19. The formulation of housing policy and programmes represents one of the principal uses of housing census data. Housing policy is normally influenced by social and economic as well as political considerations and the availability of factual data concerning the housing situation provides objective criteria, which is important for policy makers to take into account.

1.20. In most countries, housing programmes comprise both governmental and private activity. The data derived from a housing census are used by governmental authorities for making an analysis or diagnosis of the housing situation. 5/ Housing conditions are analysed in quantitative and qualitative terms and data from previous censuses are used to indicate the changes in the housing situation that have occurred during the intercensal periods; the housing deficit and future housing requirements are estimated and compared with the rates of dwelling production being attained; the characteristics of the households in need of housing are considered in relation to the availability and cost of housing. As part of over-all development plans such an analysis is necessary for the formulation of national housing programmes and for their execution. 6/

1.21. The data that becomes available from the housing census will also be studied by commercial users. Those engaged in the construction industry as well as financing institutions and manufacturers of housing fixtures and equipment and household appliances need to assess the possible demand for housing and to visualize the scope of their activities within the over-all programme.

3. Relationship between the population census and the housing census

1.22. An especially close association exists between population censuses and housing censuses. The two censuses may comprise one statistical operation or they may be two separate but well co-ordinated activities, but they should never be considered completely independent of each other because essential elements of each census are common to both. For example, an essential feature of a population census is the identification of each occupied set of living quarters and of the persons living therein, and an essential feature of a housing census is the collection of information on the characteristics of each set of living quarters in association with the number and characteristics of its occupants.

1.23. In many countries, the population and housing censuses are taken concurrently, often with the use of a single schedule. In this way, the information on population and living quarters can be more readily matched, processing is facilitated and extensive analysis can be carried out. This also makes it possible

5/ For some statistical indicators for measuring housing conditions, reference may be made to Statistical Indicators of Housing Conditions (United Nations publication, Sales No. 62.XVII.7) and to Social Indicators: Preliminary Guidelines and Illustrative Series (United Nations publication, Sales No. E.78.XVII.8).

6/ Improving Social Statistics in Developing Countries: Conceptual Framework and Methods (United Nations publication, Sales No. E.79.XVII.12).

to relate to the housing census data the information on demographic and economic characteristics of each household member that is routinely collected in the population census; if the population census cannot provide this information, it has to be collected in the housing census.

1.24. The advantages of simultaneous investigation may be offset to some extent by the additional burden on the respondent and the enumerator resulting from the increased amount of information that must be collected at one time. In countries where this is likely to be a serious problem, consideration might be given to collecting data for a limited number of topics on the basis of a complete enumeration in the population and housing census, with more complex data in both fields being collected on a sample basis only, either concurrently with or immediately following the full enumeration. Alternatively, consideration might be given to carrying out the housing census as part of the advance-listing operations of the population census.

1.25. The relationship between the population and the housing census will affect the means by which data on homeless persons are obtained. In the case of simultaneous censuses of population and housing, data on homeless persons will be obtained as part of the population census. Where the housing census is carried out independently of the population census, it will be necessary to try to enumerate them in the housing census.

4. Relationship of population and housing censuses to intercensal sample inquiries

1.26. The rapidity of current changes in the size and other characteristics of populations and the demand for additional detailed data on social, economic and housing characteristics that are not appropriate for collection in a full-scale census have brought about the need for continuing programmes of intercensal household sample surveys to collect current and detailed information on many topics. Sometimes such a sample inquiry may be the only means available of obtaining bench-mark housing data.

1.27. The population and housing census can provide the frame for scientific sample design in connexion with such surveys (see paras. 1.213-1.216); at the same time, it provides bench-mark data for evaluating the reasonableness of the over-all survey results as well as a base against which changes in the characteristics investigated in both inquiries can be measured. To permit comparison of census and survey results, the definitions and classifications employed should be as nearly alike as possible consistent with the aims of each investigation. Because of the relative permanence of living quarters, the lists available from the housing census (with suitable updating) may also provide a convenient frame for carrying out inquiries dealing with topics other than population and housing.

5. Relationship of population and/or housing censuses to other types of censuses and other statistical investigations

(a) Census of agriculture

1.28. Neither population nor housing censuses have as close a relationship to agricultural censuses as they have to each other. As the result, however, of increasing integration within programmes of data collection, the relationship between the population census and that of agriculture should now be closer than

it was in the past even though the two censuses use different units of enumeration. This development did not necessarily imply an attempt to combine population and agricultural censuses into a single field operation, which might in fact place a very great burden on the field staff.

1.29. The unit of enumeration in agricultural censuses is the holding, which is the techno-economic unit of agricultural production; the units of enumeration in population censuses are the household and the individual within the household. In a change from past recommendations for agricultural censuses, the Programme for the 1980 World Census of Agriculture 7/ no longer recommends the collection of information on the total number of persons living on agricultural holdings. Instead, it points out that some of the data needed on agricultural population and employment may better be obtained through population censuses and household sample surveys of various kinds, and that "the agricultural census should provide the means to collect information on 'agricultural population' and employment which complements data obtained through other inquiries". Accordingly, it recommends (a) the collection of limited data on demographic characteristics and economic activity of members of the holder's household, (b) the collection of information on the number and sex of hired permanent agricultural workers for each holding and (c) an indication of whether or not occasional agricultural workers are utilized on the holding.

1.30. Hence, agricultural censuses are no longer expected to provide data on all persons employed in agricultural work nor on the "farm populations". Greater reliance will be placed on derivation from the results of population censuses (and household and other sample surveys) of information on persons engaged in the agricultural industry and those engaged in an agricultural occupation. It should be realized, however, that the population census, particularly if it investigates only the principal economic activity of each person during a short time-reference period, may not identify persons connected with agricultural activity only incidentally during the period and will not identify persons who worked in agriculture during some other period of the year only.

1.31. Countries may, therefore, wish to consider the possibility of adding to their population census a question enabling them to identify persons who did some work in connexion with agriculture over a longer time-reference period, even though their principal or secondary activity during the shorter time-reference period was non-agricultural. Because of the difference in the units of enumeration between population and agricultural censuses, however, the population census cannot be expected to provide the information needed to allocate the persons thus identified to a particular holding. Further, countries may find it more appropriate to investigate incidental agricultural work through sample surveys, which are more suitable to detailed investigation that would overburden the population census.

1.32. As is emphasized also in the Programme for the 1980 World Census of Agriculture, it is important that the relevant definitions used in agricultural censuses and those used in population and housing censuses be compatible in order that the results of the agricultural census and those of the population and/or housing censuses can be used jointly, taking advantage of data-base capabilities.

7/ FAO Statistics Series, No. 1, Rome, 1976 and Collecting Statistics on Agricultural Population and Employment FAO Economic and Social Development Paper No. 7, Rome, 1978.

1.33. Population and housing censuses can also be of use in the preparation of an agricultural census. Information from a recent population and/or housing census can be utilized for demarcation of enumeration areas, preparation of the frame for the census and design of the sample if a complete agricultural enumeration is not undertaken. In planning for a population and housing census, consideration may be given to the possibility of collecting some agricultural information that would facilitate the preparation of a subsequent agricultural census. For example, the population and/or housing census may serve as a convenient means of identifying agricultural holdings or at least holders for a subsequent census of agriculture. The housing census also provides an opportunity to collect data concerning small-scale agricultural activity carried on where the area in question would not fall within the definition of an agricultural holding. These data sometimes refer to the keeping of poultry, bees and so forth.

1.34. If it is desired to collect information in an agricultural census on some demographic or social characteristics of persons employed in agricultural work it would be useful to employ the same definitions and classifications of such characteristics as are used in the population census, in order to permit as high a degree of comparability as possible between the results of the two censuses. In some cases, the utilization of supplementary sample surveys in connexion with either census may serve to provide the information desired on the relationship between the characteristics of the population of holdings and the characteristics of the holdings.

(b) Census of establishments

1.35. Although the collection of information on industrial and commercial establishments is not a part of the population census, some of the information that is collected regarding economic characteristics of individuals can be used for preparing listings of the proprietors of such establishments and/or of the establishments themselves. Experience shows that these listings can be used in a subsequent census of establishments or for supplementing the registers of establishments maintained by most countries and utilized in their establishment censuses. Since most of the registers cover at least all establishments in which more than a minimum of persons (e.g., 5 or 10) are employed, it is usually only necessary to obtain information through the population census on smaller establishments, particularly those operated by self-employed persons. But it is essential that this information from the population census be available shortly after the enumeration is carried out because this kind of information can become out of date rather quickly.

1.36. The population census information needed for these purposes is the industry and status (as employer, employee, own-account worker etc.) of economically active persons, the name and address of their establishments (if any) and (for employers) the number of employees. If all of this information appears on the census questionnaire, the data for the small employers and own-account workers can be extracted from the schedule or from the processing documents after the enumeration. If only industry and status appear on the schedule, the remaining information may be obtained from the desired group at the time of the population census enumeration and entered on a separate schedule.

(c) Census of buildings

1.37. Since, as part of the housing census operation, it is necessary to inquire concerning all buildings (both residential and non-residential) in order to ascertain whether they are occupied or not, it may be convenient to record all buildings at the time of the housing census, even though data may be collected only for those in which housing units or other living quarters are located. The comprehensive list thus obtained sometimes provides the basis for a census of buildings, carried out concurrently with, or subsequent to, the housing census, or it may provide for the identification of special types of buildings significant for other inquiries, such as the census of distribution, the school census etc.

(d) System of current housing statistics

1.38. Current housing statistics refer to housing activity. They reflect the number of dwellings constructed and certain related information such as value, number of rooms, floor space etc. as well as the number of dwellings destroyed or demolished. These data are usually obtained from a system of data collection based on the administrative procedures that are required in connexion with the activity in question. For example, construction statistics may be derived from permits issued for the construction of dwellings, from records of dwelling starts or completions, from certificates of occupancy. Statistics on dwellings destroyed may be obtained from the records maintained for the levying of rates and the collection of taxes. Compiled monthly or quarterly, current housing statistics reflect changes in the housing inventory and, although they may serve other purposes, they are also used to update the bench-mark data obtained from housing censuses.

(e) Civil registration and vital statistics

1.39. Population census data serve as denominators for the computation of vital rates, especially rates specific for characteristics normally investigated only at the time of the census. Conversely, census results, time-adjusted by vital and migration statistics, can provide estimates of the future size, distribution and other characteristics of the population of the total country and subnational areas. Further, census data on fertility can provide a bench-mark check on the reliability of current birth statistics. It is consequently desirable that procedures for the collection of population census data, vital statistics and migration statistics be closely co-ordinated with regard to coverage, concepts, definitions, classifications and tabulations.

1.40. It may be noted that some countries have linked individual census returns for infants under one year of age with birth registration reports for the year preceding the census date as a means of checking on the completeness of one or the other type of investigation. Linkage of death reports with census returns has been used to compare the information on characteristics of the deceased as reported in the two sources. While the many problems posed in the past by the one-to-one matching of two types of records have not been entirely solved, they have been mitigated by developments in computer technology. Before undertaking either of the procedures, however, countries should consider carefully the possible advantages of using household sample survey returns, rather than census returns, in the operation. Moreover, such operations have to be carried out in complete accord with national laws and policies governing the confidentiality of information obtained in the census if public confidence in the census is to be maintained.

1.41. In the establishment of a vital registration system, census results on the geographical distribution of the population can be useful in the consideration of appropriate locations for registration offices.

6. Relationship of the population census to continuous population registers

1.42. Population censuses have been used in some countries as the starting point for the establishment of a continuous population register. Such an effort, however, has little justification from a statistical viewpoint unless adequate and tested facilities, including a comprehensive and complete civil registration system for live births and deaths, are available for continuously updating the population register. If a register is already in operation, results of subsequent censuses can be compared with register data as a check on the accuracy of both. As permitted by national laws and policies relating to the confidentiality of census and other data, information from each source can be transferred to the other, after investigation and resolution of discrepancies. 8/

8/ Methodology and Evaluation of Population Registers and Similar Systems
(United Nations publication, Sales No. E.69.XVII.15).

II. PLANNING, ORGANIZATION AND ADMINISTRATION OF POPULATION AND HOUSING CENSUSES

1.43. The present chapter deals primarily with the operational aspects of population and housing censuses and the very lengthy and detailed preparations that must be made to take such censuses successfully. Because of the technical and administrative complexities involved, the principles of census management provided below should be considered as a review of points to be taken into account in planning and executing a population and housing census rather than as a comprehensive treatment of the subject.

1.44. A population and housing census (or a population census by itself) is perhaps the single most extensive, complicated and expensive statistical operation that a country undertakes, consisting of a complex series of interrelated steps. Some of these steps may be massive in scale, for example, the printing of the census questionnaires. Other steps must be carried out in a uniform manner in all parts of the country, for example, the training of the supervisory staff. And still other steps must incorporate both of these elements, for example, the actual enumeration.

1.45. To ensure that the diverse operations occur in their proper sequence and in a timely manner, the entire census and its various component steps must be planned for carefully in advance. An apparently minor oversight in planning may lead to serious defects in the census results and to costly inefficiencies in the census operations. Careful planning is, therefore, critically important to a successful census, not only in countries with comparatively little statistical experience but also in countries with a well-developed system of statistics. Coupled with the need for careful planning is the need for appropriate organizational and administrative arrangements and procedures. Such arrangements and procedures are necessary to ensure that the extensive human and material resources that have been mobilized for the census are effectively and efficiently used and to ensure that the very tight time schedules and massive logistical requirements of the census are met.

1.46. It must be stressed, however, that at each stage of census planning and implementation the various administrative arrangements developed will need to be guided by sound technical considerations. The quality and timeliness of the census data will almost certainly suffer unless sufficient weight is given throughout the census to a wide range of subject-matter and statistical requirements. It is for this reason that the management of a large statistical operation, and especially a population and housing census, cannot be considered as a routine administrative assignment. ^{9/}

^{9/} For a discussion of statistical management generally, see The Organization of National Statistical Services: A Review of Major Issues (United Nations publication, Sales No. E.77.XVII.5) and Handbook of Statistical Organization Volume I, Statistical Papers, Series F, No. 28 (to be issued as a United Nations publication).

1.47. Censuses do not all follow a uniform pattern but there are certain major elements that must be taken into account in all censuses. In general, census operations can be divided into seven phases: (1) preparatory work, (2) enumeration, (3) data processing, (4) evaluation of the results, (5) analysis of the results, (6) dissemination of the results and (7) systematic recording of census experience. It will be readily apparent that these phases are not entirely chronologically separate or mutually exclusive. For example, some census results are usually released before all data-processing activities are completed; the analysis and dissemination of census results overlap each other quite extensively; and the systematic recording of census experience should start at the beginning of the preparatory work and continue through all the subsequent phases. Furthermore, certain elements that are discussed below under "Preparatory work", such as the budget and staff, may have to be amended according to circumstances that arise at a later stage of operation. The elements of each of these seven phases are discussed below in terms of their implications for sound census management.

1.48. When the housing census and the population census are carried out together the planning, organization and administration of the two censuses should be considered as separate aspects of a single, integrated field and processing operation, that is, the separate technical requirements of each census have to be taken into account in planning and carrying out the combined operation. A combined population and housing census will be more costly and complex than each census considered by itself but it will be less expensive than carrying out both censuses independently. Moreover, the combined census will be capable of providing a greater wealth of cross-tabulations than would both censuses carried out independently. Each country will have to decide the trade-offs involved in light of its own needs and circumstances (see also paras. 1.22-1.25). However, from the perspective of over-all census planning and management the decision is not a critical one. Whether the census is a combined operation or a separate population or housing census, the basics of census planning, organization and administration as described below remain unchanged - except for the added cost and complexity of the combined operation.

A. Preparatory work

1.49. The preparatory work for the census is necessarily long in duration and involves many quite distinct activities. For purposes of presentation, these preparatory activities are divided into 14 somewhat arbitrary elements: (a) legal basis for a census (paras. 1.49 and 1.50), (b) budget and cost control (paras. 1.52-1.56), (c) census calendar (paras. 1.57-1.61), (d) administrative organization (paras. 1.62-1.65), (e) communications activities, including consultations with users and census publicity (paras. 1.66-1.69), (f) cartographic (mapping) work (paras. 1.70-1.81), (g) small-area identification (paras. 1.82-1.90), (h) living quarters and household listing (paras. 1.91-1.92), (i) tabulation programme (paras. 1.93-1.95), (j) questionnaire preparation (paras. 1.96-1.100), (k) census tests (paras. 1.101-1.103), (l) plan of enumeration (paras. 1.104-1.106), (m) plans for data processing (paras. 1.107-1.110) and (n) staff recruitment and training (paras. 1.111-1.116).

1. Legal basis for a census

1.50. Legal authority for the census is required for fixing primary administrative responsibility, for obtaining the necessary funds, for determining the general scope and timing of the census and for placing a legal obligation upon the public to co-operate and to give truthful answers and a legal obligation upon the

enumerator to record the responses faithfully. In addition, the confidentiality of the individual information should be strongly and clearly established in the census legislation and guaranteed by adequate sanctions so as to provide a basis for the confident co-operation of the public. In countries which lack permanent legal authority for the taking of periodic censuses, it is important to act early to establish ad hoc legal authority or, preferably, legislation calling for a system of periodic censuses.

1.51. The principle of conceptual and organizational flexibility should be observed in drafting the census legislation. Thus, the inclusion of too rigid provisions regarding the type of data to be collected or the structure and relationships of the various parts of the census organization is undesirable. Necessary details should, rather, be contained in the census regulations promulgated by the census authorities. Moreover, provision will have to be made, either in the legislation or the regulations, for sanctioning the use of simplified administrative procedures, including the appropriate delegations of authority for the procurement of equipment and supplies and the recruitment of personnel during the operational phase of the census.

2. Budget and cost control

1.52. No universal system of census budgeting and cost control can be suggested since financial practices vary greatly among countries. However, a few generally accepted principles can be noted. Effective planning and control of the various census operations is not possible without a very careful financial estimate of the cost of each census operation, including all of its components, no matter how small.

1.53. Information on expenditures from the previous census, classified by census phases starting with the expenditure for different elements of the preparatory work and ending with expenditure for the dissemination of the census results, provides an important basis for estimating the budget of the census. Figures from the previous census will, of course, have to be modified in order to take into account changes in wage rates and the costs of equipment and supplies etc., planned changes in census content, methods and procedures and anticipated changes in the population itself (for example, total size, percentage urban, and average household size), all of which may affect the cost structure of the census.

1.54. To provide the information needed to monitor the costs of the current census and to have the information needed to plan for the next census, detailed and precise data will be needed on the following: (a) number and cost of census staff classified by function and manner of payment; (b) type of equipment and material used for the census, manner of acquisition (i.e., purchased or rental) and cost; (c) surface measurement of office space used and cost of office space classified by use and type of cost (i.e., for construction or for rent); (d) type of services used for census operations. The usefulness of the above information would be enhanced if it could be recorded by sources of funding, namely, the expenditure: (a) from the official census budget; (b) from other funds of the census office (e.g., from a regular annual budget not specifically intended for census purposes, or from general funds of the governmental agency or department of which the census office is a part); (c) by other parts of the Government; (d) by non-governmental organizations. This information is needed not only for fiscal planning and control but also for examining the trade-offs in terms of costs and benefits among alternative ways of carrying out various census operations.

1.55. It is important that persons at the administrative and supervisory levels who will be responsible for the execution of each operation participate in estimating the budget items. Such an organization of the work presupposes detailed advance planning and "cost-consciousness" on the part of those responsible for a census.

1.56. The census plan as executed will certainly change in a number of respects after the making of the original calculations. Consequently, a perfect correspondence between the estimates and the final costs is not to be expected. Indeed, the development of the census budget is usually an incremental process in which rough initial estimates are replaced by more detailed and precise statements of resource requirements. Throughout the period of census-taking and compilation of census results, the budget will have to be re-examined and performance compared with plans. With detailed information on expenditure, the governmental and census authorities will be better able to control the development of census operations within the census budget as well as to assess and control the effectiveness and efficiency of these operations. This information is also very useful for studying possible improvements in census techniques and census methodology.

3. Census calendar

1.57. An indispensable element in the planning of a census is a calendar or time-table indicating the sequence and estimated duration of each of the component operations of the census. At the early stages of census planning, a provisional calendar of selected key dates should be prepared as an over-all framework for the census. The calendar should be revised and made more detailed as planning proceeds, with the aim of establishing final dates as soon as practicable.

1.58. Such calendars are essential, since they indicate the dates on which each of the numerous operations that make up a census are to be started and completed, and they serve as a guide for measuring the progress of each stage of the census operation. Serious delays in work, or errors in time estimates, can be detected by comparing the calendar target dates with the actual dates of each operation. A census calendar is a very efficient instrument not only in the timing control of each census operation but also in the control of the complex of all census operations that are interdependent. Therefore, when modifications in the census time-table are necessary, all related operations should be taken into consideration in order to avoid disruptions in the whole census programme. Obviously, the time schedule will differ for each national census depending upon the general census plan and the resources that are available.

1.59. The census calendar usually shows the various operations grouped into three broad sectors: (a) pre-enumeration, (b) enumeration and (c) post-enumeration. The latter sector includes evaluation and analysis as well as processing and dissemination. The basic date on which the census calendar and the scheduling of all other operations hinges is the starting date for the general enumeration of the population. For purposes of control, many operations which in fact overlap are shown separately in the calendar. Census calendars sometimes take the form of a chart or graph, in addition to a detailed check-list of operations.

1.60. In establishing the census calendar, it is necessary to consider the relationship of the population and housing censuses to one another as well as to other statistical projects. Although a joint population and housing census operation is likely, for the period of its duration, to constitute the major

statistical undertaking of the Government, care should be taken that it does not unduly interfere with the other regular statistical activities that may be going on at the same time. A balanced statistical programme should avoid too many simultaneous, competing inquiries which might place too heavy a burden on the statistical services and on the public, with a possible resultant loss of both administrative efficiency and public co-operation.

1.61. It is often found useful to draw up a comprehensive diagram that shows the sequence, interrelationship and timing of all the various steps in the census programme. This critical path analysis shows the consequences that a delay at a given step would cause to other steps in the programme. It can therefore be a useful instrument against which the actual progress of the census preparations can be compared. Indeed, some countries have attempted to use such critical path analyses not only as an aid to census planning but also as a tool for the ongoing management of their census operations. In these instances, it is essential to establish procedures for revising the critical path analysis in response to actual progress. It should be stressed, moreover, that the usefulness of such devices depends on how soundly they are designed, applied and understood.

4. Administrative organization

1.62. In planning the organization and administration of a census, it is important to consider the role and relationship of the various executive and advisory organs. National, subnational and local commissions and committees are frequently useful in the planning and preparations of a census. Such bodies may be composed of representatives of governmental agencies and of non-governmental users of the census data, particularly those involved in policy-oriented analysis of census results and analytical studies of the social, economic and demographic situation of the country. It is, however, important that their advisory and promotional functions be clearly defined and that the final responsibility for planning rest with the executive agency.

1.63. There are definite advantages in having an office continuously responsible for census work as an integral part of the statistical system of a country. Such an office assures continuity in census work and is the principal centre for the formulation of the programme and the initiation of preparatory work for the next census. Its permanency permits the development of specialized and experienced personnel and the maintenance of statistical and cartographic information essential for planning the next census.

1.64. At the pre-enumeration stage, the census office will need to be expanded to form the nucleus of the full census organization, which must be capable of directing the field organization during the preparatory work as well as during the enumeration. In order to provide immediate supervision in each area, field offices at various levels are needed for the later part of the preparatory work, including staff recruitment and training, as well as for the enumeration period. Supervisory personnel in such offices should be persons familiar with the particular area and with the local language, who are able to deal with local problems. This does not mean, however, that all supervisory positions must be filled by persons from the area. As the need arises, personnel may be transferred from the central office or from other areas.

1.65. Subsequent to the enumeration, the census organization is usually readjusted to meet the needs involved in compiling, evaluating, analysing and publishing the results and to provide the continuity desirable for promoting the continued use of census materials and the development of improved methods.

5. Communications activities, including consultations with users and census publicity

1.66. A comprehensive programme of communications for a population and housing census covers three distinct audiences: (1) major users of census data, (2) persons and institutions participating in the census operations and (3) the general public. Since the census is a national activity that is completely dependent upon the whole-hearted co-operation and assistance of the general public and many governmental and local organizations for its success, the entire communications effort should be developed as a co-ordinated activity in close conjunction with the other substantive preparations for the census. These communications activities are valuable not only for informing others about the census but also for providing census authorities with early and continuing information about the reactions of the general public in various parts of the country and of key persons, groups and institutions to census plans and activities.

1.67. Consultation with users of census data on topics, definitions and, particularly, on planned tabulations and the development of the census data base is an indispensable step to be taken early in the preparations for the census. These consultations will assist the census authorities in planning for a census that, within the resources available, will be as responsive as possible to user needs in terms of the collection, processing, tabulation, storage and availability of meaningful data. Such consultations can also serve to foster a wider and more informed understanding of and support for census plans and activities. The users to be consulted should be from governmental departments, ministries, universities, research institutions and various organizations (or individuals) representing the economic, social, educational and cultural life of a country. It is often more useful to hold separate consultations with different types of users with common interests such as administrators, policy makers, planners, demographers, researchers etc. rather than to hold a simultaneous meeting of all data users. Such combined meetings frequently prove frustrating to participants because there are substantial differences among users in their technical background and in their concern with the details of census content and operations. Because of the importance of the census in providing data for local planning and administration, it is also often advisable to have consultations with users in provincial and local governments and institutions in various parts of the country. Particularly in large countries or countries where the provincial or local governments have a comparatively high degree of autonomy, consultations with users at the subnational level is essential, if the full potentiality of the census is to be achieved.

1.68. In order to complete the preparatory work for the census and to carry out the census enumeration itself, the census office will have to expand its staff substantially. In addition, numerous governmental and non-governmental organizations outside the census office may be called upon to provide personnel, equipment, supplies, space, transportation or communications facilities etc. to help in the census work. As a result, large numbers of temporary personnel will have to be trained (see paras. 1.111-1.116) and the contributions of a diverse group of national and local organizations will have to be mobilized effectively. A well-planned communications programme can contribute to both efforts.

1.69. Arranging the publicity for the census is another of the important tasks in the census operation. This entails an educational campaign, the purpose of which is to enlist the interest of the general public and its co-operation. The aims, as a general rule, are not only to dissipate any anxiety regarding the purposes of the census but also to explain the reasons for the various questions on the questionnaire and to give some guidance as to the manner in which these questions should be answered. The publicity campaign may also be an important tool for increasing the completeness of census coverage, particularly among hard-to-enumerate groups. It is desirable that planning for the general publicity campaign start as soon as the census is authorized. The campaign itself should be closely synchronized with other census activities and full-scale publicity should not begin too far in advance of the date on which enumeration is scheduled to start. Plans for the publicity programme should be closely co-ordinated with those for the census tests (see paras. 1.101-1.103). The programme will have to provide the publicity needed to carry out the census tests. In addition, the programme can use these tests to study the impact of alternative publicity materials and methods. If either the cartographic or house-listing operations require extensive field-work and widespread contacts with the public, it should be recognized that personnel involved in these activities often provide the public with its first impression of the census. Training and publicity programmes should take this factor into account. The general campaign should be directed to all sections of the country and all segments of the population through the use of all available media of publicity. The general campaign may be supplemented by a number of specialized campaigns aimed at specific segments of the population.

6. Cartographic (mapping) work

1.70. Adequate maps are needed in all stages of the population and housing census, i.e., in planning the census, in data collection and in preparation and analysis of census results.

1.71. The determination, for the purpose of the census, of the national and internal boundaries of the territory and its detailed subdivision into enumeration areas is one of the basic and most important census operations and one which generally takes a considerable part of the time and effort invested in the pre-enumeration stage. The prevention of omissions and duplications in the enumeration depends to a very large extent on the proper delimitation of the enumeration areas; this delimitation, in turn, is dependent upon the accuracy of the detailed maps available. Reasonably up-to-date maps are also needed to set up enumerator assignments, estimate travel time and costs, establish field offices, assign geographical codes, determine the best route of travel to and within enumeration areas, measure distances and enable the field staff to locate an enumerator or to find a specific housing unit when a return trip is necessary. They also serve as a mechanism for showing the progress of the field work. When presenting and analysing results, maps are used effectively to relate statistical data to the geographical area to which the census results refer. This makes the statistics easier to understand and makes them more readily usable by the general public.

1.72. Without maps, field staff have to rely entirely on written or verbal descriptions and directions or on local knowledge of the area boundaries. Reliance on verbal description or local knowledge leads very often to confusion and error because people tend to have mental images (or mental maps) of places and these images may not coincide with the area as it really is. For the same kind of reason,

the supervisor's mental map of an enumeration area may differ markedly from that of an enumerator. Because census maps provide a realistic picture of the area, they are essential to the data collection operations, although they can usefully be supplemented by other descriptive material.

1.73. All available maps that are known to be accurate should be screened and utilized and new maps prepared as required. Several different kinds of maps are needed for census planning, such as: (a) national maps (maps of the entire country on a relatively small scale) showing major administrative divisions, major physical features and the location of cities and towns; (b) planimetric or topographic maps on a relatively large scale; (c) maps of major administrative divisions or regions showing levels of subdivisions and location of places; (d) city and town maps, which are normally large-scale maps showing all roads and streets; and (e) special maps illustrating the distribution of physical features, population, transportation and the like. Not all of these types of maps may be available or up to date or accurate. Nevertheless, whatever maps are available will be useful.

1.74. When existing maps and boundary information are not complete or some features are not shown accurately, it is necessary to introduce revisions. When maps require extensive revision or when poor quality line-work will not reproduce well, redrafting is necessary. Where detailed maps do not exist, it is necessary to sketch or draft them (such work can only be done in the field by trained staff). Aerial photography or satellite imagery may also be a useful source of information in these situations. It is usually not possible to finance such expensive undertakings within the census budget. However, census authorities may find it possible to use photographs or imagery obtained in connexion with various non-statistical programmes.

1.75. To carry out all the mapping tasks required for accurate and useful censuses (and other statistical activities), a formal ongoing mapping programme should be established. Failure to implement this important effort during early stages of the censuses can endanger the final results. It is necessary to start cartographic work sufficiently early to ensure that an adequate supply of maps is available three to four months before the census is scheduled to begin. Mapping tasks undertaken too late or with insufficient planning almost surely will result in lack of maps or in maps that are inadequate for the enumeration of critical areas. For population and housing censuses, the lead time should be at least two or three years even with an ongoing mapping programme.

1.76. The best census maps will be of limited value unless the field staff responsible for enumeration is trained to use them properly. Training may involve direct instruction of the field supervisors by members of the geography staff, or it may involve the preparation of instructions on map reading and use of maps for inclusion in the manual for training enumerators.

1.77. It will be most helpful if the concerned governmental authorities freeze the boundaries of various administrative units at least six months in advance of the census date so that no further jurisdictional changes are effected until the enumeration is over. This helps considerably in delimitation of enumeration areas, in minimizing chances of omission or duplication and in quick dissemination of preliminary census results.

1.78. The time and expense involved in preparing and checking maps and in the careful drawing of enumeration areas are further justified by subsequent use of the maps for non-census purposes and particularly as frames for post-censal sample surveys.

1.79. In addition to the maps required for the census, a systematic, complete and up-to-date listing of localities is required. Such a listing is needed for the coding of place names and for determining to what extent data for localities will be tabulated. In some regions, the establishment of a definitive list of localities is a major operation because of difficulties arising from the frequent fragmentation, disappearance or combination of small localities, and from changes in name, variations in spelling, the existence of more than one name for the same place or the use of identical names for different places.

1.80. In countries in which particular types of living quarters predominate in readily identifiable areas, it may be useful during the preparatory work to consider these areas in relation to the boundaries of the enumeration districts being established for the census. Where the areas are clearly delineated, as is often the case, for example, with squatter areas, it may facilitate the preparation of subsequent housing programmes or the carrying out of special studies if the boundaries of the enumeration areas at the margin of these areas could be drawn so as to avoid as much as possible creating enumeration areas that incorporate living quarters of widely divergent types, such as conventional dwellings and improvised housing units.

1.81. There is widespread recognition that it is important for national statistical agencies to develop a continuing cartographic capability to serve their specialized cartographic needs. Such a capability can make a major contribution to the population and housing census and, through the census, to subsequent programmes of household surveys. The availability of appropriate, reliable and up-to-date cartographic materials is an important factor in the planning and control of field work and in the processing of census results. In connexion with these phases of census operations, the importance must be kept in mind of close co-ordination between, on the one hand, cartographic work for the population and housing census and, on the other hand, that for the census of agriculture and other statistical inquiries. A continuing cartographic capability can also contribute to the analysis and presentation of census results.

7. Small-area identification

1.82. Two somewhat different methods are available to provide the census with a flexible capability for generating tabulations in terms of a wide variety of geographical aggregations, including those needed for the purposes of local planning and administration. The first method simply extends the traditional, hierarchical system for coding all major and minor civil divisions to cover at the lowest level the enumeration area (EA), sometimes referred to as the enumeration district. The second method, which at greater cost permits finer geographical specificity, is usually based on some co-ordinate or grid system, such as latitude and longitude. This method is often referred to as a geocoding system.

1.83. Particularly in the absence of a comprehensive system of street names, numbers or similar addresses, the first method, which uses the EA as the key unit for the production of small-area data, is to be preferred. Proper administration and control of a census requires that the EAs are well defined and their boundaries identifiable on the ground. As a rule, they are also traced on maps and they

carry code numbers which can accompany the statistical information at data entry. It is therefore possible to make available from the census data base, subject to the constraints imposed by the need to protect the confidentiality of individual responses (see paras. 1.162-1.163 below), any recorded information in relation to any given EA or combination of EAs without having to resort to any special arrangements or having to incur very substantial additional expenditures.

1.84. The fact that census data, whether published or unpublished, are available by EA gives them useful flexibility. Geographical divisions used by various branches of the administration or by other data users do not always coincide and therefore require different regroupings. On the other hand, when changes are planned in administrative boundaries, tabulation of census data by the planned new entities is of course essential.

1.85. On the level of the basic area units, tabulation of population and housing characteristics by EA, which may be shown on statistical maps, is a useful tool for analysis. Furthermore, correlation analysis of different characteristics can be carried out using EAs as units when it is not feasible to study the relationship directly by cross-tabulating the individual data. Linkage of data from other sources, however, is not often possible on the EA level because of the difficulty of arranging such information by census EA. Comparison between successive censuses is of course possible only to the extent that the EAs remain unchanged.

1.86. On the next higher levels, the situation is somewhat different in urban and rural areas. Large urban municipalities are usually divided into units (quarters, wards, barrios etc.), which may have well-known and relatively permanent administrative status. Data tabulated by such units are of great practical value for all planning and analysis. If such area units do not exist or if they are too large for fruitful analysis, other, intermediate units may be formed for statistical purposes. These should be made as homogeneous as possible. Possibilities for data linkage and for comparisons in time are clearly best for area units that have administrative status. Purely statistical areas that lack such status are the more useful the more widely they are recognized and the more permanent they are kept from census to census.

1.87. At a minimum, developing countries that are predominantly rural will certainly wish to be able to identify the village, which is usually the most important local unit in rural areas. In the past, however, the village has not uniformly been a higher level geographical unit than the EA so that while larger villages are divided into several EAs, one EA may also be identical with one village or be composed of two or more small villages. In the latter situation the EA codes cannot be used to generate village statistics. It may therefore be advisable to limit each EA either to one village or to a portion of a village or to an area not included in any village, bearing in mind that an individual enumerator can always be given more than one EA to enumerate. There are other problems connected with identification and delimitation of villages, and these must also be dealt with in planning the cartographic work. Due to the organic role it plays in rural life and development efforts in many developing countries, the village should not be neglected in census plans or in census statistics.

1.88. The statistical value of the village is further increased by the possibility often existing for data linkage with other sources. Particularly relevant is the possibility of collecting, as is done in many countries, village information of most varying nature, such as location, altitude, road connexions, communications, facilities of various kinds or distances from such facilities, cultural or ethnic characteristics of the population, major industries, major crops etc. The village as a unit is relatively stable but in the course of time new villages are created and old ones may disappear or merge. A village directory and its cartographic base therefore require frequent updating.

1.89. Also in rural areas there may be need to create an intermediate statistical level between village and minor civil division if the former is generally too small and the latter too large for local planning purposes. In such cases, the intermediate units should be made as homogeneous as possible and changes in their boundaries over time should be avoided. On the other hand, areas smaller than EA or village may also be desired to be differentiated, particularly isolated settlements.

1.90. Countries may sometimes find it useful to have even greater flexibility in regrouping census data into different geographical aggregations than that provided by a coding system based on the EA. In these situations, the use of some system of geocoding may be considered (see para. 1.82). The two approaches to geocoding that are of most significance for census planning are (a) segment allocation and (b) area allocation to grid squares. With segment allocation, co-ordinates are assigned to nodal points (e.g., street intersections) to identify segments or block faces. The grid system involves dividing the national territory into a uniform grid of squares using standard co-ordinates to identify the squares. Among the advantages of geocoding, particularly if based on the grid squares approach, are its permanence, clarity and uniformity, as well as the possibility it offers to interlink statistics from a wide variety of sources. It must be stressed, however, that geocoding is more expensive than traditional methods of area coding and the technical prerequisites for it may not be present in many countries.

8. Living quarters and household listing

1.91. A list of living quarters, structures containing living quarters, or households, available at the start of the census, is an aid in the control of the enumeration particularly in the absence of adequate and updated maps. Such a list is also useful for estimating the number of enumerators and the number of schedules and other census materials needed in an area, for estimating the time required for the enumeration and for compiling provisional results of the census. It is also very useful for determining the enumeration areas and for establishing necessary links between population and housing censuses when they are carried out separately.

1.92. Consideration should be given to providing permanent identification to streets and buildings, which can be used for successive censuses and for other purposes. A listing of living quarters, particularly in densely settled places, cannot be made unless streets have names and buildings have unique numbers. Individual apartments in multidwelling buildings need to be numbered or otherwise unambiguously identified. Where these prerequisites do not exist, numbering immediately prior to the census would prove useful.

9. Tabulation programme

1.93. In most countries, the tabulation programme represents a compromise between the information that it would be ideally desirable to tabulate and the limits imposed by practical circumstances. It is essential that the programme be outlined sufficiently early so that the procedures and costs involved may be investigated thoroughly before a final decision is reached. The testing of questionnaires will help to indicate if it will be reasonably possible to gather the material desired for tabulation. The type of questionnaire and the method of enumeration may limit the kinds and amount of data it is possible to collect. Publication time and costs, and the data processing resources available, will determine the number and complexity of the tabulations that can be produced within a reasonable time. The basic tabulation programme, covering all tables to appear in the published census reports, should be firmly decided upon soon after the content of the questionnaire is fixed in its final form. This will permit prospective users of the census data to make firm plans and the census data processing staff to complete all systems analysis, programming and testing work in a timely manner.

1.94. It is important to plan the tabulation programme in such a way that final results can be issued within a reasonable period of time after the enumeration and before the information has become out of date for current needs. It is desirable that the details of the tables to be prepared and the order of their preparation be decided early in the planning so that the processing of the data will not be delayed.

1.95. Special tabulations may be requested at any time after the census enumeration. Once the census data base has been produced by recording, editing and correction of the raw data, tabulation software packages allow fast and relatively inexpensive production of tables for selected subsets of the total data base or for additional sets of categories.

10. Questionnaire preparation

1.96. The type of questionnaire, its format and the exact wording and arrangement of the questions merit the most careful consideration, since the handicaps of a poorly designed questionnaire cannot be overcome during or after enumeration. Among the many factors that should be taken into account in designing the questionnaire are the method of enumeration, the type of questionnaire, the data to be collected, the most suitable form of the questions and their arrangement and the processing techniques to be employed. Many decisions regarding processing are dependent on the final content, form and arrangement of the questionnaires.

1.97. The method of enumeration governs to some extent the type of questionnaire (i.e., single individual, single household or single living-quarters, multiple household or multiple living quarters, combined population and housing) and the scope of the questionnaire that can be used, as well as the framing of the questions and the amount of explanatory material that must accompany them. Questions should be free from ambiguity and should not be offensive.

1.98. Special provisions will have to be made if two or more languages are used in the country. Several methods have been used to deal with this situation: a single, multilingual questionnaire, or one version of the questionnaire for each major language, or translations of the questionnaire in the various languages printed in the enumerators' manual. The problem is more serious in the case of

non-written languages. Staff recruitment and training procedures (see paras. 1.111-1.116 below) will also have to take language problems into account. Information on the distribution of languages in the country is important for sound census planning and, if not available, will have to be collected at some stage of the census preparations.

1.99. If the housing census and the population census are to be carried out simultaneously it will be necessary to consider whether a single questionnaire should be utilized to collect information on both population and housing. If separate questionnaires are used they should be adequately identified so as to permit subsequent matching of the data for each set of living quarters with data that refer to the occupants.

1.100. Questionnaire design should be considered jointly with the planning of the tabulation programme. This is essential if the questionnaire is to be designed to provide the information needed for the tabulations. It is also necessary because the feasibility of the tabulation programme is, to some extent, conditioned by the limitations imposed by the questionnaire. The final questionnaire must be drafted in time to allow for proper training of census officials, for adequate publicity on its content and for any delays in printing.

11. Census tests

1.101. The testing of various aspects of a census plan prior to the enumeration is a very useful practice for all countries; it is essential for countries without a long history of census-taking and for those in which fundamental changes in census methods are being considered. Census tests can be designed for different purposes and in different ways. To yield full benefits, tests should be employed for all stages of the census, including enumeration, processing and evaluation of results. They can give important information on the adequacy of the field organization, the training programme, the processing plan and other important aspects of the census. They are particularly valuable to test for weaknesses in the questionnaire or in the instructions or enumeration procedures that might affect the quality of the data. They can be designed to provide information on the relative efficacy of alternative methods of enumeration and on the average time required for enumerating a single household or a single set of living quarters, which information is useful in estimating the staff and cost requirements. In addition, they serve as practical training for the nuclear staff of supervisors and other officials.

1.102. The kind of tests usually first carried out during census preparations are questionnaire tests. Their purpose is to test the suitability of intended census questions, of their formulation and of the instructions given, as well as the suitability of the questionnaire design. They are also used for estimating the time requirements in enumeration. It is practical to carry out questionnaire tests on a small scale in several purposively selected places. Because they are relatively inexpensive, repeated rounds of questionnaire tests may be made until a satisfactory questionnaire has evolved.

1.103. A comprehensive test of all census procedures is often called a pilot census. Essential features of a pilot census are that it covers one or more sizable administrative divisions and that it encompasses the preparatory, enumeration and processing stages of a census, thus testing the adequacy of the entire census plan and of the census organization. In order to best serve this purpose, it should be undertaken in conditions as closely resembling the actual

enumeration as possible. For this reason, it is often taken exactly one year before the planned census so as to conform with the expected seasonal patterns of climate and activity. It is generally unwise to consider the pilot census a source for deriving usable, substantive data. Apart from the sampling problems involved, such a use inevitably detracts from the central purpose of the pilot, that is, preparing for the main census.

12. Plan of enumeration

1.104. The complete enumeration plan should be prepared well before the enumeration begins. This involves (a) the determination of the enumeration method to be used and the basic procedures to be followed in the collection of the data and the control of the enumeration, (b) the procedures for the control of the quality of the data and (c) an estimation of the number of living quarters and the probable size of the population to be enumerated, so that the number of questionnaires and other materials required for the enumeration and the number of enumerators and supervisors needed can be properly ascertained.

1.105. The universal enumeration of population and living quarters should be made exclusively on a geographical basis, that is to say, the country should be divided into census enumeration areas and each area should be small enough to be covered by one enumerator during the period of time allowed for the enumeration. Other sources of information, such as registers of population or registers of properties, cannot normally be considered as adequate for the purpose of a census although they could be used for checking the completeness of the enumeration or the accuracy of the replies to certain questions.

1.106. Special attention should be given to the procedures to be followed for the enumeration of nomadic and semi-nomadic populations. These procedures should take account of the specific difficulties in locating these population groups, which are characterized by movement from place to place (see paras. 1.120-1.122 below). Special arrangements may also need to be made to enumerate homeless persons as well as the special categories listed in paragraph 2.47 below to the extent that these categories are included within the scope of the census. Where their number warrants, additional information may need to be sought that would indicate the reason for homelessness.

13. Plans for data processing

1.107. Plans for data processing should be formulated as an integral part of the over-all plan of the census and those responsible for the processing of the census should be involved from the inception of the planning process. Data processing will be required in connexion with the results of census tests, compilation of preliminary results, preparation of advance tabulations, preparation of general tabulations, evaluation of census results, analysis of census data, arrangements for storage in and retrieval from a data base, identification and correction of errors etc. Electronic data processing is ordinarily used for recording and processing census data. Data processing has an impact on almost all aspects of the census operation from the selection of topics and the design of the questionnaire to the analysis of the final results. Therefore, data processing requirements in terms of personnel, space, equipment and software (computer programmes) need to be looked at from the point of view of the census as a whole and at an early stage in the planning.

1.108. The existing data processing staff will certainly need to be expanded somewhat and probably need some up-grading in terms of skills, particularly if new computer hardware or software will be used in the census. Any needed training should be completed early enough so that those benefiting from the training can play an active role in census planning and operations.

1.109. Decisions will need to be made concerning the location of the various data-processing activities within the country including the extent to which the processing work is decentralized. Acquisition of both equipment and supplies can require long lead times; estimates of both data recording and computer processing workloads must be made early to enable timely procurement. Closely related to the question of equipment is that of the provision of adequate space. Not only is census processing a space-intensive activity but also much of the equipment involved requires space that must meet comparatively rigid standards in terms of temperature, humidity, dust etc. In order to avoid possibly damaging costly equipment it is important to obtain and prepare the needed space so that it is available prior to the arrival of the equipment.

1.110. In addition to considering the processing equipment to be used in the census, decisions will have to be made on the software to be used in editing and tabulating the census data. Software for census editing and tabulation is expensive to develop. It requires skilled systems analysts and programmers, who are experienced with census processing, working in close collaboration with subject-matter specialists and statisticians, and considerable time to plan, write and fully test such programmes. For this reason, an increasing number of countries are finding it advantageous to consider adapting one of the several portable software packages available for census editing or tabulation for their own use. These packages can reduce the systems analysis and programming tasks involved very substantially, although at some price in terms of loss of flexibility. Each country will wish to assess its software requirements in light of its own needs and the current state of the art of portable software oriented towards census editing and tabulation. If one or more externally developed software packages are used, sufficient time will have to be allowed for training staff in their use and for making any needed adaptations to fit the packages to the processing environment and requirements of the specific census.

14. Staff recruitment and training

1.111. Early arrangements are necessary to secure the proper number and type of personnel required for each of the various census operations. For reasons of efficiency and economy, it is important that the staff be selected on the basis of competence. Consideration may also be given to the use of the same staff for successive operations, thus reducing the turnover of personnel. While the preparatory and processing work generally calls for office employees possessing or able to learn certain specialized skills (cartographers, coders, punchers etc.), the enumeration stage usually demands a large number of persons capable of going to their assigned urban or rural enumerations areas and of collecting the information according to specific definitions and instructions. It is essential that the enumerators and, to the extent possible, their immediate supervisors be conversant with the languages or dialects of the area in which they will work. It is only prudent to recruit and train a somewhat larger field force than is required for the enumeration itself as a certain amount of attrition is inevitable both during the course of the training programme and between the completion of the training and the start of the field work.

1.112. Once the cartographic preparations are substantially completed and the questionnaire has been sent for printing, perhaps the single most important means that the census authorities have for influencing the success of the census is the training programme. The contribution that a well-planned and executed training programme can make to the quality of the census results cannot, therefore, be stressed too strongly. Such a training programme must of course focus on the widely dispersed and difficult-to-supervise field staff (i.e., the enumerators and their immediate supervisors) but it must also cover others (e.g., the higher-level supervisors, editors, coders, computer operators).

1.113. The entire census training programme should be designed to cover each phase of the work and provide an efficient and consistent means of effectively starting large numbers of employees in their work. The programme will need to correspond closely to the needs of the various operations and, where appropriate, may include both theoretical and practical instruction, with emphasis on the latter. In the case of the enumerators and their immediate supervisors, the training is most effective if it includes several opportunities for the trainees to participate in practice interviews and role-playing exercises. (In countries in which multiple languages are used, the method and content of the enumerator training programme will need to be suitably adjusted. For example, provision will have to be made for instructing enumerators in the correct formulation of the census questions in the vernacular if the questionnaire is printed in another language.) The training programme for editors, coders, operators of data-recording equipment etc. should also provide opportunities for the trainees to practise, under the supervision of the trainers, the operations they are expected to subsequently perform. The intermediate and higher-level technical staff may also benefit from special training programmes. For them, the emphasis usually should be on recent technical developments of relevance to the forthcoming census and on the interrelationships among the various aspects of census plans and operations.

1.114. The organization and conduct of training courses should be entrusted to those having the necessary qualifications to carry out this task successfully, taking into account not only their professional abilities but also their ability in teaching. This means that staff in charge of training should have certain qualifications that will enable them to stimulate the interest of trainees and to transfer the required knowledge. Otherwise well-qualified technical personnel who are unable to transfer their knowledge to the trainees in a satisfactory manner are unsuitable as instructors for group training activities. This must be taken into consideration when selecting instructors and it is recommended that objective criteria should be used. In practice, however, it is difficult to find the necessary number of instructors who have both the professional and teaching qualifications; for this reason, the instructors selected should themselves undergo training in how to organize and conduct training courses.

1.115. It is important that each training programme be made available in the form of a manual (booklet) and distributed to the census organizers and training instructors. This would be a valuable guide and would considerably help in the efficient training of census staff. It would also contribute to uniformity of training, which is an essential factor for a successful enumeration, taking into account the great number of census instructors who will be engaged in training. Simple audio-visual aids (for example, film strips, posters, tape recordings) can also be used to help make the training more effective and uniform throughout the country.

1.116. It is very important to determine the time required to train staff for the various aspects of the census. This depends on several factors: the type of the function for which they are being trained, the level at which they will be performing, the complexity of the census, the educational level of the trainees, the number of instructors available and the funds available. Usually, all the courses last from one week to a month. It is strongly recommended that the training be carried out daily for a fixed period. The results are not as good if training is provided for a few days per week; this draws out the length of the course and previous work is often forgotten and has to be repeated. For this reason, it is also best to avoid completing the training long before the start of the actual work. However, any duration may be fixed for the course, provided that the main principle is not overlooked, namely, that it should be long enough to permit the assimilation of the syllabus.

B. Enumeration

1. Method of enumeration

1.117. There are two major methods of enumeration. In the canvasser (or enumerator) method, information for each individual (in a population census) and information for each set of living quarters and the occupants thereof (in a housing census) is collected and entered on the questionnaire by a census official designated to perform this operation in a specified area. In the householder method, the major responsibility for entering the information is given to a person in the unit being enumerated - usually the head of the household - although the questionnaire is usually distributed, collected and checked by a census official. In some countries, postal distribution and/or return of the questionnaire is used in conjunction with the householder method. This mail-out and mail-back procedure can be used in full or combined with on-site checking by a census official.

1.118. Each method has its own advantages and limitations. The canvasser method is the only method that can be used in largely illiterate populations or in other population groups that may be unwilling or find it difficult to complete the census forms themselves. On the other hand, in countries where literacy is virtually universal and educational attainment is relatively high, the householder method can often yield more reliable results at substantially lower costs, particularly if a mail-out/mail-back procedure can be used. However, the postal services can only be used to distribute the census forms when a comprehensive and up-to-date list of addresses is available or can be prepared. Another consideration is the emphasis to be placed in the census on obtaining responses, whenever possible, directly from the person concerned. The householder method does allow for, and the instructions may encourage, consultations among the family members when they complete the census form at no extra cost to the census organization. In contrast, with the canvasser method it may be prohibitively expensive even to encourage enumerators to go beyond the "first responsible adult" they encounter in each household. In light of these considerations it may sometimes be desirable to rely on one method for enumerating most of the population and to use another method in certain areas or for special groups of the population. However, over-complex designs should be avoided.

1.119. The decision regarding the method of enumeration to be employed should be taken at an early stage on the basis of thorough testing of the various alternatives in terms of their costs, the quality of the data produced and their

operational feasibility. Even where a method has been traditionally followed, it is well to reassess periodically its relative advantages in light of the current census needs and changing techniques. An early decision is required because the method of enumeration used affects the budget, the organizational structure, the publicity plan, the training programme, the design of the questionnaire and, to some extent, the kind of data that can be collected.

1.120. To carry out successfully the enumeration of nomads, it is particularly necessary to pay full attention to the preparatory work in order to determine the suitable enumeration methodology and enumeration techniques. It should be pointed out that there is no absolute methodology for the enumeration of nomads and conditions vary from country to country. The particular method suitable for a country undertaking to enumerate nomads as part of the census should be determined only after a detailed preliminary study and after field testing. Some of the methods used to enumerate nomads and semi-nomads may be classified as follows: (a) group-assembly approach, (b) tribal or hierarchical approach, (c) enumeration-area approach, (d) water-point approach and (e) camp approach. Sometimes a combination of two or more methods may be used.

1.121. In the group-assembly approach the nomads are asked to assemble at certain places of interview on some fixed dates. This method can be adopted only through the administrative and/or tribal authorities. The tribal or hierarchical approach is a favourite method since the nomads usually follow what is dictated by the tribal or hierarchical chief. The enumeration work can be carried out as a kind of administrative census by contacting and collecting from the tribal chief, sometimes from memory and sometimes from a register, all the needed information on the followers. The other way is to contact the followers with the assistance of the chief or a representative and to collect the necessary data from the household directly. In this case, the unit of enumeration is not areal but tribal. The enumeration-area approach presupposes creating conventional census enumeration areas and then contacting each nomadic household that happens to be staying in the enumeration area during the census. In the water-point approach a list of all water-points available to the nomads during the period of enumeration is prepared. Since during the rainy season numerous temporary water-points are created, a meaningful list of water-points may be prepared only with reference to the dry season. The enumerator is given the task of locating and visiting every nomadic household that may be using a certain water-point. In the camp approach of enumerating the nomads, a list of camps is prepared together with the approximate location of each within the country, and enumerators are sent to each camp to visit each household.

1.122. For more detailed information on the methods described above and for other methods of enumerating nomads, reference may be made to the study presented to the Conference of African Statisticians at its tenth session. 10/

2. Timing and length of enumeration period

1.123. The choice of the time of year in which the census will be taken is of great importance. The main consideration should be to select a period in which the census is likely to be most successful and to yield most useful data. This

10/ Economic Commission for Africa, "Study on special techniques for enumerating nomads in African censuses and surveys" (E/CN.14/CAS.10/16).

may depend on a number of factors. First of all, it is necessary to avoid seasons in which it is difficult to reach all inhabited areas because of rains, flooding, snow etc. or in which the work is particularly arduous, as in extremely hot weather. Secondly, a time should be chosen when most people are staying at their usual places of residence; this simplifies the census operations in both a de jure and a de facto enumeration and in the case of a de facto enumeration it can make the results more meaningful. Seasons of peak agricultural activity should be avoided because it is difficult to interview persons who work late every day and may even stay nights at their lands if these are far from home. Great traditional festivals, pilgrimages and fasting periods are also unsuitable times for census work. Since in many developing countries the bulk of the field staff is recruited among school teachers and older students, the census may be feasible only during school holidays, though the days of major festivals should be avoided.

1.124. In a country that includes areas of sharply contrasting seasonal patterns of weather or activity or in which potential census personnel is in very short supply, it may be necessary to enumerate different parts of the country at different times or to enumerate the nomads or other special population groups at a different time from the settled population. This, however, is generally not a very desirable solution because the nomads cannot always be clearly differentiated and because of the mobility of the settled inhabitants. It furthermore complicates the use of the census data.

1.125. When a census has been taken and the census date has been found on the whole satisfactory, the next census should be taken at the same time of the year, unless there are strong reasons for changing this date. A regular census date enhances the comparability of the data and facilitates analysis.

1.126. It is desirable to keep the enumeration period short in order to avoid double counting and omissions, which can occur in spite of a single reference date. On the other hand, the shorter the enumeration period, the more field staff has to be recruited, trained and supervised. This increases the cost and may lower the quality of the data. How these different considerations should be reconciled depends on the size and nature of the country and on the resources at its disposal. The length of school holidays is sometimes a restricting factor, although Governments of several developing countries, recognizing the great national importance of a census, have prolonged the school holidays in the census year in order to allow teachers and students to work on the census as long as required.

1.127. In recent censuses, most developing countries have allowed about one week to 10 days for the training of enumerators while the enumeration period has generally varied from a few days to two weeks. Short periods are often feasible in small countries while longer periods may be necessary in large countries with poor communications.

1.128. A method designed to allow sufficient time for enumeration and yet make the census simultaneous is to enumerate first the population over a longer period, say a week or more, and then, in one single day to canvass all households again, deleting and adding persons as needed to update the files. This procedure, however, is not practicable in very sparsely settled areas.

3. Supervision

1.129. Adequate supervision of the enumeration is essential. When the enumeration lasts only a few days, it is recommended to control the quantity and quality of the work accomplished after the first day of enumeration in order to facilitate the correction of inefficiencies and the maintenance of satisfactory progress during the enumeration period. Where the enumeration extends over more than a few days, periodic and systematic assessment should be organized.

4. Use of sampling in the enumeration

1.130. Sampling may be employed in the enumeration for collecting information on any topics which need not be tabulated for small areas. Questions designed to apply only to a sample of the population or of the living quarters may be included on the regular questionnaire or a special sample questionnaire may be used in addition to a complete enumeration questionnaire. For a discussion of the use of sampling in the enumeration, see paragraphs 1.167-1.216 below.

C. Data processing

1.131. No matter how thorough and accurate the census enumeration is, the usefulness, quality and timeliness of the census tabulations will suffer unless the collected data are properly processed. An important element of a successful processing operation is the close and continuing collaboration, at all levels, between the data-processing staff, on the one hand, and the subject-matter and the general statistical staff, on the other hand. At a minimum, the subject-matter and the general statistical staff will need to become familiar with and take a continuing interest in the processing plans and operations, while the processing staff will need to become familiar with and take a continuing interest in the substantive aspects of the census.

1. Method of processing

1.132. The choice of an appropriate method of processing is determined by the circumstances of each country. Rapid advances in electronic data processing, with consequent advantages for speed and reliability in producing detailed tabulation, have made it the standard method of processing in almost all countries in spite of the costs of purchasing or renting equipment, the problems of transportation and servicing and the difficulties of securing an adequately trained staff of operators, programmers and systems analysts.

1.133. In determining the type of equipment to be employed and the advisability of a new complete or partial machine installation, or of additions to existing equipment, consideration should be given to all the processing requirements of the programme of data collection of which the population and housing census is but one part. Only on this basis can a reasonable decision be arrived at. Decisions on the type of data-recording equipment and computer equipment should be made at least one year in advance of the scheduled date of enumeration in order to allow appropriate questionnaire design and proper preparation of instructions to enumerators, development of coding schemes, specification of data-handling controls and procedures and recruitment and training of data-processing personnel. Rapid processing of pre-test or pilot census data is particularly important for identifying improvements needed in the census questionnaire, instructions to

enumerators or what other preparations may be needed. Therefore, arrangements for using appropriate equipment and software should be made well in advance of such tests.

1.134. In countries with little or no prior census experience or data-processing equipment, consideration is sometimes given to processing the census outside the country. However, it should be stressed that within-country processing of the census is far preferable to external processing for several technical and policy reasons. Within-country processing provides direct access to the census documents and an opportunity for the national data-processing and other census personnel to become more familiar with all stages of the census. It is also more consistent with most national policies relating to census confidentiality and the fostering of self-reliance. Moreover, population censuses in the past have often been the occasion for countries to upgrade or expand the computing facilities used for statistical data processing. Finally, it may be noted that the cost of computer hardware is continuing to decline, making it possible for nearly all countries to acquire at least a modest statistical processing capability. In any case, out-of-country processing should only be resorted to if all other alternatives are not feasible, including the use of other within-country data processing facilities outside the census or statistical office.

2. Stages of processing

1.135. The stages of processing and the order in which they come differ somewhat according to the processing method used but all methods have in common the necessity of providing for editing of the original information for missing and inconsistent data, transforming the information in the questionnaires into a machine-readable form and tabulating the results.

3. Specification of tabulations

1.136. Both as an aid to precision in specifying tabulations for the data-processing staff responsible for their production and as a device for ensuring completeness of the tabulation plan and avoiding unwieldy or redundant tables, it is advisable to prepare three types of specifications. The first identifies and precisely defines each conceptual unit for which one or more tabulations may be made; these are the intended tabulation units. The second covers, for each data record type and the corresponding tabulation units, the identification, structure and composition in terms of variables and their locations. The third describes, for each variable used to categorize the tabulation units, all the category sets used in the various tables (e.g., single years of age; five-year age-groups), identifies, for each such category set, the precise values or sets of values comprising each individual category and specifies the consequent number of categories in the set.

1.137. Using these definitions of tabulation units, record types, categorizing variables and their category sets, a tabulation chart should be prepared for each tabulation unit. The tabulation chart expresses the desired tabulations much more concisely than the table pro forma, and thereby enables comprehensive specification of the complete tabulation plan in relatively few pages.

1.138. Besides summarizing the tabulation plan, such a tabulation chart enables the identification of potential problems in computer data processing or publication. The precise specification of tabulation plans may also be used by the data-

processing staff to design the computer tabulation programme and to determine the appropriate files, subfiles and storage media for efficient processing.

1.139. The precise definitions of the tabulation units, variables, record types, and category sets, together with the actual data files comprise the census data base. Viewing the census data base in this light, the importance of careful and efficient edit and correction of basic data is easily seen. The tabulation chart, which clearly shows the category sets that will be combined in the planned tabulations and thus the potential for contradictory or incompatible cross-categorizations, is of great help in identifying the consistency tests to be included in the edit rules. By showing the size and numbers of tables that are to be produced from each data file, the tabulation chart will also facilitate the choice and use of whatever tabulation software packages are available for the computer equipment to be used. Finally, it assists in the preparation of estimates of programming and tabulation time that will be needed for both staff and computer equipment.

4. Processing control

1.140. Careful planning and control are required to ensure an uninterrupted flow of work through the various stages from receipt of the census questionnaires through the preparation of the data base and final tabulations. The plan should provide for the computer edit to follow closely the coding/checking/recording of the data so that errors can be detected while knowledge about them is fresh and appropriate remedial actions can be taken.

1.141. Manual checking and correction of coding or transcription of data should be planned and computer editing and correction programmes should be prepared and tested well in advance of enumeration so that invalid or inconsistent data may be identified as soon as possible after encoding and recording, thus allowing sources of error to be eliminated as quickly as possible. Due consideration should be given to using edit software packages for identifying and correcting invalid and inconsistent data since these packages allow relatively easy modification of edit and correction rules to take account of actual data patterns. For a discussion of a closely related issue, quality control in data processing, see paragraphs below.

5. Advance and final tabulations

1.142. Because of the urgent need for information on some census topics and the length of time required for final tabulation of census results, consideration should be given to the preparation of advance tabulations of selected topics. These are usually based on summaries of the raw data and may be issued as provisional results. Since the provisional and final results may differ (for example, the raw summaries on which the provisional results were based may contain sizable errors) it is important that users be warned about the possibility of such differences. Final tabulations may be based on all of the returns or on a sample. If some of the topics are collected on only a sample basis, proper weights will have to be applied in the tabulation stage to produce valid national estimates.

D. Evaluation of the results

1.143. Good census practice requires a careful consideration and evaluation of the completeness and accuracy of the census results. There may be errors in coverage and also in content, that is, mistakes in the reporting or recording of information concerning the characteristics of living quarters, households or individuals. The purpose of such an evaluation effort is twofold: first, to provide users with some basic measures of the quality of the census data and hence some indication of the confidence with which the census results can be used for different purposes and, secondly, to provide the census authorities with the information needed to plan and carry out improved censuses and surveys in the future. In addition to the general census evaluation programme discussed below, individual users of census data often carry out quite detailed but more specialized evaluation studies, generally of an analytical character.

1.144. The extent of either coverage or content errors can be estimated through the analysis of the internal consistency of the data, by examination of the reasonableness of the results and by comparison of the results (either at the aggregate or the individual record level) with data collected in other inquiries. 11/ A post-enumeration field check is also an essential part of the process of evaluation, as are analytical comparisons with the results of previous censuses and with other sources (see paras. 189-198 below). These methods of evaluation may be supplemented by other methods that focus on specific census operations (for example, quality control studies of the coding or punching work) or that are more qualitative in nature (for example, studies based on tape-recorded interviews).

1.145. The publication of census results should include an estimate of coverage error, i.e., the amounts of over-enumeration and under-enumeration, together with a full indication of the methods used for evaluating the completeness of the data. Similarly, it is desirable to provide, so far as possible, an evaluation of the quality of the information on each topic and of the effects of the editing procedures adopted.

1.146. One of the important effects may result from the correction of inconsistent data and the addition of data which are missing from the questionnaire but about which reasonable assumptions can be made. If information on sex is not recorded, for example, an imputation, based on other entries on the questionnaire, can be made. If age is not stated on the questionnaire a randomly selected age, appropriate to the other characteristics of the individual, may be assigned. Similarly, if information on piped water is not recorded for a housing unit, an allocation based on other entries may be possible. If the housing unit is reported as having a flush toilet, then it can be assumed that it also has piped water. The range and quality of editing and imputation possible in a population and housing census can be greatly enhanced by the use of computer edit programmes that permit inter-record checks. If any imputation is made, the topics affected, the method used and the number of cases should be clearly described in the census report.

11/ A number of references given in Parts Two and Three below in connexion with the discussion of specifics to be included in the census discuss analytical methods that can be used to evaluate the census results.

1.147. Because evaluation studies, like data collection itself, can be expensive, it is usually desirable to establish a set of evaluation priorities for each census. These will be determined on the basis, inter alia, of the major uses to which the data will be put, the method of enumeration employed and problems encountered in previous censuses or anticipated in the present one. In addition to the issues discussed above, subjects suitable for inclusion in a general evaluation programme include, for example, the accuracy of age reporting, the coverage of homeless persons or other special population groups, the impact of proxy respondents on the labour force or fertility data or problems related to the need to conduct the census in more than one language. Moreover, both the importance and expense of a sound evaluation programme means that it should be included as a component in the basic census plan.

1.148. The process of evaluation should not be permitted to delay the prompt publication of the principal results of the census. Evaluations of the completeness and accuracy of the data can be issued after the initial publication of the results.

E. Analysis of the results

1.149. In order to ensure the fullest possible utilization of census results by national and local governmental authorities, by academic researchers and by others, it is advisable to draw up a comprehensive and co-ordinated programme of analytical studies, phased over a period of several years. This would help allocate the resources in such a way that important planning needs are adequately met, undue duplication of research effort is avoided and priorities are observed as far as possible. In these studies, the data of the current census should not only be examined by themselves but also as complemented by relevant data from other sources and from earlier censuses in order to obtain a broader context, improve the estimates and establish trends.

1.150. The analytical studies to be included in such a programme will vary according to the needs and circumstances of the country. The programme may include descriptive summaries of results, policy-oriented analyses of census results and detailed analytical studies of one or more aspects of the demographic and social situation of the country. Some of these studies may be undertaken by the census organization itself, but others - particularly the more time-consuming studies - can most effectively be carried out in co-operation with other research organizations. In any case, it is desirable to invite specialists from other governmental offices and experts outside of the Government to take part in drawing up this programme of studies and it is natural that they would play an important part in the execution of various parts of the analytical programme.

1.151. One important aspect to be considered in establishing a programme of analysis is the possible use of census results in achieving the goals and objectives of human settlements policies and strategies at the national and local level and in applying available resources effectively towards the improvement of human settlements conditions. For this purpose it will be necessary to analyse population and housing census results within the framework of other information available so as to achieve an integrated approach to the solutions of human settlements problems.

1.152. A permanent census office should be the repository of all census results; it would thus be equipped with the information needed for comparative studies, which will indicate long-term trends in the phenomena investigated.

1.153. Aside from studies that are part of the over-all census programme, additional analyses by research organizations, universities or other experts on their own initiative should be encouraged.

F. Dissemination of the results

1.154. A census is not complete until the information collected is made available to potential users in a form suited to their needs. The information may be included in published tables for general distribution, produced as tables in unpublished form for limited distribution or stored in a data base and supplied on request either on tapes or as computer print-outs.

1. Publication of tabular results

1.155. It is important that plans be made and sufficient funds allocated to ensure publication of the tabulations of widespread interest. The final tabulations should be presented and explained in a way that will make them usable by as many persons as possible. The data must be set forth by appropriate geographical and administrative divisions and by important demographic variables; evaluations of their accuracy and appraisals of their significance should be included in the census publications. A sufficient number of maps should be provided in the census publication to allow the identification of the geographical units for which statistics are presented.

1.156. Not all of the processed material need be published. Tabulations required by only a few users, such as certain government offices or specialized research organizations, can be supplied in unpublished form. Some data may not be tabulated until they are required at a later date. But it is important to underline that data processing by computers provides the opportunity to produce a greater number and a wider variety of tabulations than was the case with previous tabulation procedures. The information stored in the census data base represents a rich source of information, which allows fast and relatively inexpensive production of additional tables as they are requested.

1.157. Where it is possible under the census law, consideration may be given to producing transcriptions of the information from a representative sample of the census questionnaires, for the use of qualified agencies and research institutes engaged in special studies beyond the programme of the census organization. Care must be taken, of course, to ensure that the information does not include such details as name or local address, from which individuals could be identified.

1.158. Every effort should be made to publish the principal results of a population census (such as those on age, sex and geographical distribution of the population) and of a housing census (such as a geographical distribution of living quarters, households, and population by type of living quarters) as soon as possible after the date of the enumeration; otherwise, their usefulness and the extent of their interest to the public will be diminished. Specific guidance, in the form of illustrative tabulations, for population census topics will be found in chapter VI of the present publication and for housing census topics in Part Three.

1.159. Target dates for publication should be determined well in advance and processing and reproduction programmes should be planned accordingly. In addition to traditional methods of printing, there are various methods of reproduction available (for example, the multi-lith or micro-fiche reproduction of computer print-outs) that are rapid, economical and legible, and these should be investigated.

2. Small-area data

1.160. The increasing activity in economic and social planning and its attention to subnational areas are placing new demands on statistical information in general and on population and housing censuses in particular. There is increasing need for tabulations not only by major and minor civil divisions and by other units of analysis such as metropolitan areas but even, beyond these, by small local areas.

1.161. As it is hardly possible to foresee all demands for small-area data at the time when census tabulation plans are made, steps should be taken to ensure that at any later time required data can be retrieved at low cost and in short time from a well-arranged data base. For a discussion of some of the issues involved in the establishment of a small-area statistics programme in connexion with the census, see paragraphs 1.82-1.90 above.

3. Privacy and confidentiality

1.162. All the information stored in the census data base allows the production of tables not only for very small areas (such as enumeration areas or villages) but for all individual units in these areas. Therefore, when a census data base is constructed, not only technical considerations must be taken into account but also the maintenance of confidentiality and the protection of individual privacy, which must be a primary consideration in designing the data-collection and data-processing programme. The identifiable microdata of a confidential nature, such as name and local address, from which individuals could be identified, should be eliminated from the data base.

1.163. The same care must be taken if a transcription of information from original questionnaires is needed (i.e., from a representative sample) for use of qualified agencies and research institutes engaged in special studies beyond the regular census programme. Such needs are considerably decreasing with almost universal use of computer technology but when such procedure is possible under the census law, individual privacy should be ensured and no exception should be authorized.

4. Acceptance of results

1.164. In countries with no prior census experience and without a well-functioning civil registration system, where population data are based on estimates, it is important to inform the users, particularly the governmental authorities, that the census results could differ from such estimates and to explain the reason for these differences. In some cases, the Government may not at first accept the census results, particularly in the case of the first scientific census in countries having little or no experience with population and housing data collection. Usually, these doubts about the census results focus narrowly on the total population of the country, major subdivisions or population subgroups, rather than on the bulk of the census data relating to characteristics of the population or data for local areas. Thus it may be possible to take these doubts

into account by modifying the census evaluation programme or by adding appropriate qualifications in the text of the census reports or in tabular foot-notes. In addition, the Government may proceed with the processing and dissemination of the census as originally planned but decide to use population estimates for some official purposes. In any case, every effort should be made to process and evaluate the full census and to make appropriate use of as many of the census tabulations as possible.

1.165. In this connexion, it is recommended that every country should prepare and, if possible, publish a methodological and administrative report providing specimens of the census questionnaires and forms, instructions for the enumeration and detailed information on the cost of the census and on the implementation of the census budget as well as information on the manner in which the census was planned, organized and conducted, the important methodological and other problems encountered at the various stages of the programme and points to be considered in future censuses. This report will both assist the users of the census results in appraising and interpreting the data and facilitate the proper planning of future data collection programmes, including population and housing censuses.

G. Systematic recording and dissemination of census experience

1.166. The cumulative experience of past censuses in a country is definitely of great help in the preparation of a new census. Because of the lapse of time between censuses and the likelihood of changes in upper-echelon personnel even in a permanent census office, it is most useful to assemble complete records on the methodology of each census, an evaluation of the techniques employed and detailed records on costs and implementation of the census budget. These records should be arranged in such a way that information on each aspect of the census operation can be found easily (see para. 1.54 above for an indication of the information on costs and other resources required).

III. USE OF SAMPLING IN POPULATION AND HOUSING CENSUSES

1.167. Sampling should have a role in population and/or housing censuses both as an integral part of the planning, execution, analysis and evaluation of the census and through the use of the census as a sampling frame for subsequent sample inquiries.

1.168. The most significant aspects of the use of sampling in connexion with the census are set forth below in three sections: features of acceptable sampling operations, sampling as an integral part of the census and the census as a basis for subsequent sample inquiries.

A. Features of acceptable sampling operations

1. Accuracy

1.169. The use of sampling in a census involves an awareness of the precision desired in a sample estimate. The higher the precision, the larger and/or more complex the sample and hence the more expensive. A distinction is to be made between precision of a sample estimate, as measured by the sampling error (which gives the difference between the estimates obtained from a sample and from a complete enumeration under the same general conditions of the inquiry) and accuracy, as measured by the difference between the true value (which is generally unknown) and that obtained from an inquiry, whether on a sample or a complete enumeration basis. For this reason, in the case of a sample inquiry, accuracy includes both sampling errors and non-sampling errors.

1.170. For the successful execution of a scientifically designed sampling plan, it is essential that strict selection procedures be followed. The procedures must be such that a known positive probability of selection is assigned to every unit in the population. These probabilities are needed for estimating population values and for calculating the measures of precision of these estimates. Good selection procedures require that deviations from prescribed standards or instructions be minimized.

1.171. Although estimated results based on samples are subject to sampling errors in addition to whatever errors may be present in data based on a complete operation, the smaller scale of a sample operation may make it possible to employ interviewers of higher calibre, to devise and pose questions of greater detail and to minimize response errors.

1.172. Consideration should be given to the use of parallel samples, that is, interpenetrating networks of samples, ^{12/} to supply controls at the point of collection of the data and also estimates of the margin of uncertainty of the sample estimates.

^{12/} See Recommendations for the Preparation of Sample Survey Reports (United Nations publication, Sales No. 64.XVII.7), sect. V.18.

1.173. Recognition should be given to the importance of computing estimates of sampling variances, at least for the major items of interest. Simplified methods, in conformity with the sample design, such as methods based on the use of random groups or on the summarization of basic data for individual primary sampling units could be used for this purpose. ^{13/}

2. Census resources

1.174. Effective planning of sample operations consists of meeting the requirements of accuracy by making judicious use of whatever expert knowledge and equipment are available in a particular country. It is obvious that sample plans aimed at the same objective may vary from country to country, depending on the quality and quantity of census resources. In planning a sample operation as part of the census effort, it is important to bear in mind considerations of cost and of competent direction.

1.175. The question of cost in sampling is of crucial significance. Numerous factors govern the cost of sampling and it is essential that these be fully weighed before a decision is made to associate a sample plan with a complete count. One important factor, for instance, is the size and complexity of the sample, which in turn is governed by the objectives of the survey and the procedures that are regarded as most efficient. The cost of a sample operation can be substantially lower if only a few geographical and cross-classification details are required.

1.176. Sample operations should be conducted under the direction of a competent statistician who is conversant with both the theory of sampling and the practical difficulties of carrying out surveys. The advice of such a statistician is indispensable at all stages of the sample procedure, that is, from planning of the sample to estimation of population values.

1.177. In order to ensure that the sample is selected strictly according to the design and to avoid any possibility of bias in sample selection, it is strongly recommended that the actual selection of the sample units should be carried out either in the central office or in regional offices under the direct supervision of a sampling statistician.

B. Sampling as an integral part of the census

1.178. Depending on the types of problems to be tackled, a country may consider applying sampling methods in one or more of the following phases of a population census: tests of census procedures, enumeration of topics in addition to those for which universal coverage is required, post-enumeration field checks, quality control of data processing, advance tabulation of selected topics and final processing and tabulation. Each phase is discussed below.

^{13/} "Report of the eighth session of the Conference of African Statisticians", Addis Ababa, 21-30 November 1973 (E/CN.14/611), para. 226; M. H. Hansen, W. N. Hurwitz, and W. G. Madow, Sample Survey Methods and Theory, vol. I, Theory (New York, Wiley, 1953), pp. 439-440; R. K. Som, A Manual of Sampling Techniques (London, Heinemann, 1973), pp. 273 and 312.

1. Tests of census procedures

1.179. Planning the various phases of a census often involves choosing among several alternative procedures. Tests conducted on a sample basis provide the best means of determining which alternative to use. The results of such tests facilitate a more desirable allocation of available census resources than is possible otherwise and thus assist any country to undertake a census programme adapted to its needs and capacities.

1.180. The nature and extent of census testing depend on the information that is available from previous censuses or other sources. If, for example, prior housing statistics are lacking in a country, it will be difficult to assess in advance the variability of the statistical material to be investigated and also the quality of the interviewers. An intensive pilot survey will enable one to obtain an idea of these factors. Again, countries that expect to expand the scope of their censuses rather substantially in relation to their previous censuses should first determine the feasibility of the plan of expansion. This may warrant a broad experimental approach to the entire census plan.

1.181. If no previous information is available concerning the variability of the important characteristics to be investigated by sampling in the census, a pilot survey can be used to obtain such an estimate. The precision of the results to be obtained by subsequent sampling procedures can then be calculated in advance and the probable limits of error of estimation can be stated for each figure to be estimated. This important feature of sampling makes it possible to design the sample in accordance with the precision required for the uses that are to be made of the data or with the precision possible within the range of permissible costs.

1.182. When carrying out census tests, random sampling need not always be employed. Non-random, or purposive, samples may be used where, for testing the effectiveness of a projected course of action, it is not necessary to base the final decision on any quantitative measures derived from data obtained by means of the test and particularly where the biases introduced are not of very great significance for the problems investigated. The tests of many procedures require duplication of the coverage and procedures within a compact area. In such a case, it is seldom feasible to include a sufficient sample of such areas to obtain representative coverage. The results for the area or areas actually covered must be projected to the expected total on the basis of general knowledge of the representatives of the areas. In such cases, purposive selection of one or a few areas is generally preferable to a random selection. Purposive samples are also particularly useful when it is necessary to test census questionnaires and methods in areas with particularly difficult conditions. On the other hand, when quantitative measures are needed for comparing efficiencies of different procedures (for instance, in examining the anticipated response errors arising from different systems of enumeration), random sampling must be used.

2. Enumeration of topics in addition to those for which universal coverage is required

1.183. The rapidly growing needs in a number of countries for extensive and reliable demographic data have made sampling methods a very desirable adjunct of any complete census. Sampling is increasingly being used for broadening the scope of the census by asking a number of questions of only a sample of the population and/or of the housing units. Modern experience in the use of sampling techniques has confirmed that it is not necessary to gather all demographic and/or housing information on a complete basis; the sampling approach makes it feasible to obtain

required data of acceptable accuracy when factors of time and cost might make it impracticable, or other considerations make it unnecessary, to obtain the data on a complete-count basis.

1.184. It is important to bear in mind, however, that national legal requirements may make it mandatory to collect certain information on a complete-count basis. Legislation in many countries prescribes complete population enumerations at particular times or makes certain political or administrative dispositions dependent on particular results from a complete enumeration. For example, the apportionment of seats in the legislature among the civil divisions of a country often depends on the number of persons actually enumerated in each division. The data needed for this and similar purposes cannot be collected by sampling.

1.185. Information that is collected for only a sample of the population and/or housing units may be obtained by one of two different methods. Either the same census interviewers may ask the questions or specially trained interviewers may be engaged for enumerating the sample. The first method may be used where it is fairly simple to obtain the information by conventional enumeration techniques; the second method is used where ordinary enumeration methods are not expected to elicit accurate answers to the questions and where the sample size can be kept small. In general, the choice depends on the nature and manner of asking the questions, which in turn are determined by considerations of cost and accuracy and of the nature of the data to be collected. It depends also on the nature of the staff available and on the facilities for training and supervision.

1.186. It is important to make certain that asking questions that are not asked of all persons does not give rise to legal, administrative and even political issues since census information is required under statute and usually under penalty.

1.187. The field staff for a sample inquiry in connexion with a census is often required to compile detailed information from the respondents and may have to make subjective decisions to place a respondent's answer under the correct category. For this reason, they are required to be of a high calibre, well trained and preferable with prior experience and/or knowledge with regard to population and housing statistics. Also, because housing censuses often take place in conjunction with population censuses, the scope of the housing data to be collected may have to be limited by the quality of the interviewers. In addition, serious biases have been encountered in census results when census enumerators exercised their own judgement as to which person, family or household was to be given the detailed questionnaire (see para. 1.177 above).

1.188. The suitability of particular questions for a sample enumeration depends on the precision with which results are needed for small areas, population groups and groups of living quarters and on the enumeration costs involved. Account has also to be taken of the desirability of having results of high precision on basic topics for areas of various sizes, since such results can serve as bench-marks for numerous subsequent inquiries.

3. Post-enumeration field checks

1.189. As the scope of the modern census is ever-increasing with time, the problem of obtaining census data of high quality is becoming both more important and more difficult. In the present state of census practice, no procedure is yet available

that can keep the census enumeration entirely free from errors. It is extremely important, however, that departure from accuracy and completeness does not exceed reasonable limits.

1.190. Census enumeration extends to every census unit in the population and involves numerous questions; it cannot, therefore, be completely checked since, in that case, the cost of re-enumeration would be prohibitive and the burden of response imposed on the public excessive. An effective way of determining the types and magnitudes of errors in the census enumeration is the re-enumeration of samples of census units for certain questions.

1.191. Post-enumeration field checks serve two principal purposes. The one is to inform users of the data about the accuracy attached to census figures and the other is to aid census officials in the improvement of subsequent censuses. In so far as the checks serve the latter purpose, the task of testing for subsequent censuses is greatly eased.

1.192. As mentioned in paragraph 1.182 above, random sampling need be used only when quantitative measures are required for appraising the census data (for instance, in determining the amount of under- or over-enumeration) with the best possible precision. Non-random or purposive samples may be used where quantitative measures derived from the sample data are not of crucial importance for testing the effectiveness of a certain census procedure. However, in choosing between a random and a purposive sample, it is well to keep in view the requirements of future demographic and/or housing inquiries, including the next census, since a random sample, although it may be more expensive from the immediate viewpoint, may well provide a scientific and continuing basis for planning future inquiries of a related nature.

1.193. Special precautions should generally be taken in order to avoid errors in the collection of information from the sample selected for the post-enumeration field check. Some advantages of conducting the check as closely as possible to the general census are that (a) there will have been a minimal movement of population, (b) respondents will still have fresh in mind the information as of the date of the census and (c) the public will be prepared to co-operate with the new inquiry because they will not have forgotten the publicity and other activities connected with the census. However, it should be ensured that the general census enumeration is completely over before the post-enumeration check starts and that the field personnel for the check no longer have access to the questionnaires completed during the general census. It may be useful to select the best of the supervisors and enumerators from the general census to serve on the post-enumeration field check; they should receive intensive training and should be remunerated on a basis that allows them ample time to obtain valid replies. When necessary, their work should be verified by cross-checks with other elements of information. However, one disadvantage of holding the post-enumeration check just after the general census using the same staff is that the fatigue from the census work may not allow the staff to do the post-enumeration check properly. Another problem arising from the same circumstances is that the independence of the post-enumeration field check may be adversely affected.

1.194. To accomplish its purpose, a true post-enumeration field check, particularly one instituted to check coverage errors, should meet three separate requirements, which are: (1) it should constitute a separate count, independent of the original enumeration; (2) it should be representative of the whole country and of all

population groups; and (3) it should involve one-to-one matching and reconciliation of records. To the extent that any of these requirements are not met, the estimates of error based on the post-enumeration field check are themselves subject to error.

1.195. The ultimate sampling units for re-enumeration should be clearly defined and should preferably be operationally convenient geographical areas, taken from a comprehensive frame consisting of enumeration areas, preferably those used in the original census.

1.196. Representativeness in respect of the whole geographical area and of all population groups calls for the post-enumeration field check to be carried out in a well-designed random cluster sample, large enough to give at least an evaluation of the enumeration in the country as a whole and in its major civil divisions, since determination of quantitative measures of under- and over-enumeration is one of the important objectives of the procedure.

1.197. The one-to-one matching of census schedules to post-enumeration field check schedules is the essence of the re-interview method of census evaluation. Name-to-name matching is not an easy task in any country, especially in cultures where names lack uniqueness. Even identification of the household may be difficult in those parts of the world where street names and house numbers are practically non-existent. Nevertheless, since the efficacy of the post-enumeration field check as a remedial measure in census-taking rests on the identification of errors and their correction, comparisons must be made on a one-to-one basis to the degree possible.

1.198. In order to assess the content errors as well as to help in the matching process for evaluation of coverage errors, an intensive query with questions additional to those asked during the general census may be made during the post-enumeration check. Moreover, questions on supplemental topics not investigated during the census may be included in the post-enumeration check as a means for collecting additional data, provided the decision is taken after a proper assessment of the feasibility of combining the two operations.

4. Quality control of data processing

1.199. Sampling can be used effectively for measuring and controlling the quality of census-processing operations. These include the editing of questionnaires, their coding, the recording of data on punched cards (or tape production) and their verification, some computations (rates etc.) and the tabulation of figures. Even in a country of medium population size, these operations involve millions of questionnaires and a far greater number of columns of figures and of perforations.

1.200. Under appropriate conditions, sample inspections and, in particular, quality control techniques make it possible to control effectively and economically the quality of census data processing and it is no longer necessary or expedient to locate and correct substantially all processing errors by carrying out each operation a second time by way of verification. This course results in a much lower census cost than if the control had been performed on a complete basis. Moreover, it is, in any case, not justified to increase the processing costs of a census beyond a certain point for improving the accuracy of census results since these will still be affected by defects in enumeration (e.g., incompleteness of enumeration, response errors etc.) and other errors independent of processing. When final tabulations are in view, attention has to be paid to the accuracy of

figures in a series of detailed cross-tabulations, especially those concerning relatively small areas or small groups of individuals. This demands accuracy in small lots of data and imposes more stringent conditions in the application of statistical methods of quality control than if only larger areas or groups were to be considered.

1.201. For clerical processes such as coding, key punching etc. primary controls should be on the work of individuals, since the difference among individuals is a major component of variation in quality. The quality of work of an individual may vary significantly over time. Therefore, it is desirable to compute error rates frequently. In addition, each person should undergo a qualifying period at the beginning of the operation during which his or her work is verified intensively, in some cases at the 100 per cent level.

1.202. Every effort should be made to keep operational features as simple as possible. One person in each work unit should designate work to be verified; each verifier should not be made responsible for the application of sampling instructions. In general, a systematic pattern of selection with random starts is preferable to a random one. Measures of quality must be adaptable to simple record-keeping systems.

1.203. An inspection level of x per cent does not automatically ensure a cost saving of $100 - x$ per cent. Cost estimates must take into account 100 per cent inspection during the training period, fixed costs of handling inspection lots, 100 per cent inspection of rejected lots, costs of designing and selecting the sample and extra record keeping.

5. Advance tabulation of selected topics

1.204. A complete national census is a huge undertaking and several years may elapse beyond the date to which the census refers before some of the tabulations of the greatest economic and social interest are published. This lag may be expected in countries that are large and that do not take censuses regularly and frequently, and also in the economically less developed countries where minimal or no funds can be devoted to modern tabulation equipment. The danger is, however, no less serious in countries where modern tabulation equipment is available in large quantities, since most of the increased capacity of such equipment has to be utilized to meet the heavy additional demands made by the modern census.

1.205. It is natural, therefore, that advance, provisional tabulations were in the past most frequent application of sampling to census work and perhaps the first one to be made in many countries. Although it is true that, in most countries, interviewers prepare at the time of enumeration, summaries referring to the number of living quarters, households and persons enumerated and some other basic facts, there is nevertheless a definite need for early tabulation of some of the results that cannot be derived from interviewers' preliminary reports. The need for advance tabulation was evident even in a small country that takes censuses regularly. It should be mentioned at this point that advance sample tabulations can be used to the best advantage when they are obtained for fairly large areas and for the country as a whole.

1.206. If only a sample of returns is processed and used for tabulation, the advance estimates of the basic census results thus obtained would be of current

validity. The population and the housing situation may be undergoing such rapid changes that the processing of an advance sample may present a more up-to-date picture than would a complete tabulation. An important consideration in selecting topics for the advance sample tabulation is their variability, since sampling errors may tend to obscure changes that have occurred.

1.207. Securing advance tabulations through sampling has certain disadvantages. The results tabulated for the sample units have to be integrated with those tabulated for the non-sample units to give the final results. These operations may increase the total tabulation time of the census and its cost beyond what they would be without the special tabulation of advance results. Precautions are necessary in order to minimize the delay that may be caused in the preparation of the final results. To that end, the census plan should carefully co-ordinate the special tabulation of advance results and the tabulation of final results. Moreover, as mentioned in the next subsection, modern data processing equipment and programmes available in most countries renders the advantages in terms of speed of advanced tabulations prepared on a sample basis less clear-cut than in the past.

1.208. If sampling has been used as an integral part of a complete enumeration to broaden the scope of the census by obtaining supplementary information, the same sample of individuals, households or other units will also provide a sample for advance tabulations of the census proper. Such a sampling scheme, if it is devised efficiently, with a view to securing additional census information by small administrative units, may offer excellent opportunities of conveniently obtaining advance tabulations by the same administrative units.

1.209. Even when no sampling has been used in the actual enumeration, the sample design for advance tabulations may be comparatively simple because the complete census returns provide the sampling frame and the domain or domains of study. Advantage may also be taken of the efficiency of using small sample units (e.g. households or small areas) since the smallest units are actually the easiest to define in the census returns.

6. Final processing and tabulation

1.210. The principal limitations of complete processing and tabulation of all the information collected in a population census and/or a housing census are time and money. Consequently, processing and tabulation programmes may provide for the complete tabulation of those elements of information regarded as of sufficient importance for small administrative areas, while certain other characteristics may be processed and tabulated only on a sample basis. This procedure has been used in the past by some countries in an effort to ensure the timely completion of the census processing work. The arguments in favour of this approach are now less compelling than in the past owing to the speed of the data processing equipment currently available in most countries. However, savings might still be achieved through the use of sampling in connexion with manual processing operations, such as coding and data entry, particularly in large countries.

1.211. In considering the advisability of using sampling in connexion with the final processing operations, the following considerations may also be taken into account. There are certain population and housing characteristics about which information is needed only by large areas and for the country as a whole.

Sampling makes it possible to obtain detailed tabulations for large areas, with reasonably small sampling errors and at a much reduced cost and in a shorter time than that needed for tabulations on a complete basis. However, since one of the purposes of a census is to serve local interests, the feasibility of sampling is determined to some extent by the size of the smallest localities for which separate tabulations are needed. In order to obtain data of acceptable precision for these, it may be necessary to use high sampling fractions in view of the great variability as well as of high intra-cluster correlations for certain characteristics. There may be instances where even the use of high sampling fractions fails to give results of acceptable precision; in such cases it would be inadvisable to use sampling methods.

1.212. Even greater savings in cost and time are achieved if cross-tabulations are prepared on a sample basis than if simple tabulations are so prepared. However, it should be borne in mind that sample tabulations imply some reduction of geographical detail and of detailed cross-classifications. Moreover, it is possible that such cross-tabulations may result in a number of cells that include a small number of units and, therefore, have high sampling errors.

C. The census as a basis for subsequent sample inquiries

1.213. A sampling frame may be a list of small areas, structures, households, people or groups of households. The census can be such a frame; in fact, the census can be the only frame for subsequent sampling in the many countries that do not have good maps, village lists, a register of population, a register of households or lists of living quarters. Before a sample selection is undertaken, it is necessary to ensure that the sampling frame is free from such defects as inaccuracy, incompleteness, duplication, inadequacy and obsolescence. Each of these five types of defects in a frame introduces defects of a different type in the sample procedure. Emphasis should be laid at this point on the importance of updating the frame to the date of the sample inquiry. Otherwise, the inquiry results would refer to the date at which the frame was last revised. It is desirable to investigate carefully those parts of a population and/or a housing census that are to be used as the sampling frame for a proposed sample survey, since some defects are not at all apparent until a detailed examination has been made. This objective may be accomplished by examining the relevant administrative machinery of the census and the way in which the census information is kept up to date; sometimes the investigation may entail a certain amount of field work.

1.214. Although this remedy is appropriate when the frame in question is a population and/or housing census already enumerated and processed, a much more effective approach towards avoiding the above-mentioned defects would be to give very careful consideration to the problem at the stage of planning the census. A census can serve as a reasonably acceptable frame if, in addition to careful planning, the various phases of the census are executed with proper care and if the obstacles to successful execution are fully recognized.

1.215. Maps and prior census information concerning small areas are very important for devising a good sample plan. Maps are particularly valuable if they unambiguously indicate boundaries of very small areas and the number of living quarters, households or inhabitants living within the boundaries. This prior information need not necessarily be very accurate or up to date if it is used for grouping or stratification.

1.216. For many subsequent sample inquiries, the main census results may be available for use as supplementary information by the national statistical office and possibly by others, in accordance with national laws and policies relating to the confidentiality of census data (see para. 1.50). The availability of individual records or punch cards, the data on which they have been checked, makes it possible to select sample units from those that show characteristics relevant to the sample inquiry. Stratification and ratio estimation can thus readily be used, whereas they are difficult or impossible to employ when sampling is used as an integral part of the census, such as in tabulating advance results.

IV. THE UNITS, PLACE AND TIME OF ENUMERATION FOR POPULATION AND HOUSING CENSUSES

A. Units of enumeration

1.217. Since individual enumeration is an essential feature of a population census, the primary unit of enumeration for the population census is the person. The household is the general framework within which most individuals are identified and it is also an additional unit of enumeration in its own right. Because it is also a unit of enumeration for the housing census, the careful identification of the household as a preliminary step to the enumeration can facilitate the efficient collection of the data and the control of its completeness in both censuses. In countries in which it is traditional to use the family as the general framework within which individuals are identified, the family may be substituted for the household. In the majority of cases, the composition of the family will coincide with that of the household.

1.218. In addition to persons identified within households, there are persons who are not members of a household. The latter group constitutes the institutional population, which is also investigated in population censuses.

1.219. For the housing census, the household is one of three units of enumeration; the other two units are living quarters (i.e., housing units and collective living quarters) and buildings. It is important to bear in mind that, in conceptual terms, these three units are clearly distinguishable. There is not necessarily an identity or exact correspondence among these concepts nor are the terms themselves interchangeable. Several households may live together in one set of living quarters and one household may occupy more than one set of living quarters. Similarly, several sets of living quarters may together occupy one building and one set of living quarters may occupy more than one building.

1.220. It is recognized that there may be difficulty in some countries in maintaining independent concepts of "household" and of "living quarters". However, the advantages in terms of the usefulness of the data that result from separate concepts outweigh the additional effort required in maintaining them.

1.221. In carrying out a census, it is essential that the units of enumeration be clearly defined and that the definitions be included in manuals of instruction for the enumeration and in census reports. In order to reduce the possibility of difficulties in applying the definitions recommended below, countries may find it necessary to expand the definitions and to illustrate them in terms of national conditions and circumstances. Post-enumeration field checks can provide a useful means of determining to what extent the national definitions of the units of enumeration have been applied in the field and the consequent effect on the census results.

1. Person

1.222. For census purposes, the "person" is each individual falling within the scope of the census. Although each person must be included in the count of

the population, there will be some variation in regard to the persons for whom information is collected on different topics. The variations usually depend on the person's age, sex and/or relationship to the head or other reference member of the household. When it is recommended that information on a particular topic be investigated for less than the total population, the group of persons for which the topic should be investigated is indicated in the presentation of the definition and specifications of the topic in chapter V, section C. In addition, each tabulation presented in chapter VI, section C is accompanied by a description of the population to be included in the tabulation.

2. Household /or family/

1.223. The concept of "household" is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. A household may be either (a) a one-person household, that is, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multiperson household or (b) a multiperson household, that is, a group of two or more persons living together 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 to a greater or lesser extent; they may be related or unrelated persons or a combination of both.

1.224. The family that is sometimes used as a unit of enumeration in place of the household consists of related persons living together and having a common budget.

1.225. For a more detailed discussion of the concepts of household and family, see paragraphs 2.62-2.64 and 2.73-2.85. A more detailed discussion of the concept of households is also presented in paragraph 3.112.

1.226. Households usually occupy the whole, part of or more than one housing unit but they may also be found living in camps, boarding houses or hotels or as administrative personnel in institutions, or they may be homeless. Households consisting of extended families that make common provision for food or of potentially separate households with a common head, resulting from polygamous unions, or households with vacation or other second homes may occupy more than one housing unit.

1.227. Homeless households are defined as those households without a shelter that would fall within the scope of living quarters as defined in paragraph 1.232 below. They carry their few possessions with them, sleeping in the street, in doorways or on piers or in any other space on a more or less random basis.

1.228. For certain topics investigated in housing censuses, the household may serve more efficiently than living quarters as the unit of enumeration. For example, tenure, if investigated in the census, should be collected with reference to households rather than living quarters. Information about household possessions that are not normally included as part of the equipment of living quarters (radio and television receivers, for example) should be collected with reference to households. Information on rent, an item of significance in relation to both living quarters and households, would of necessity be collected in relation to the household.

3. Institutional population

1.229. The institutional population comprises persons who are not members of households. These include persons living in military installations, correctional and penal institutions, dormitories of schools and universities, religious institutions, hospitals and so forth.

1.230. Persons living in hotels or boarding houses do not belong in this category but should be distinguished as members of one-person or multiperson households, on the basis of the arrangements that they make for providing themselves with the essentials for living. Personnel of institutions not living in dormitories or similar accommodations should be treated in the same way.

4. Living quarters

1.231. The principal units of enumeration in a census of housing are living quarters. Only by recognizing them as such can data be obtained that will provide a meaningful description of the housing situation and a suitable basis for the formulation of housing programmes.

1.232. Living quarters are structurally separate and independent places of abode. They may (a) have been constructed, built, converted or arranged for human habitation, provided that they are not at the time of the census used wholly for other purposes and that, in the case of mobile housing units, improvised housing units and collective living quarters, they are occupied at the time of the census or (b) although not intended for habitation, actually be in use as such at the time of the census. For a more detailed discussion of the definition of "living quarters" and of the concepts of separateness and independence as used in the definition, see paras. 3.41-3.43.

5. Building

1.233. The building is regarded as an indirect but important unit of enumeration for housing censuses since the information concerning the building (building type, material of construction and certain other characteristics) is required to describe properly the living quarters located within the building and for the formulation of housing programmes. In a housing census, the questions on building characteristics are normally framed in terms of the building in which the living quarters being enumerated are located, and the information is recorded for each of the housing units or other living quarters located within it.

1.234. A building is any independent free-standing structure comprising one or more rooms or other spaces, covered by a roof and usually enclosed within external walls or dividing walls that extend from the foundations to the roof. However, in tropical areas a building may consist of a roof with supports only, that is, without constructed walls, in some cases, a roofless structure consisting of a space enclosed by walls may be considered a "building". For a more detailed discussion of the definition of building and related concepts, see paragraph 3.17.

1.235. In some countries, it may be appropriate to utilize the "compound" as a unit of enumeration, either in addition to the building or as a substitute for it. In some areas of the world, living quarters are traditionally located within compounds and the grouping of living quarters in this way may have certain economic and social implications that it would be useful to study. In such

cases it may be appropriate, during the census, to identify compounds and to record information suitable for linking them to the living quarters located within them.

B. Place of enumeration

1.236. In a population census, information about each person can be collected and entered on the census questionnaire either where he or she is (or was) present on the day of the census or at his or her usual residence.

1.237. In compiling the census results by geographical areas, however, each person can be included in either (a) the household (and hence the geographical area) where the person was present on the day of the census or (b) the household (and the geographical area) where he or she usually resides. This allocation is not necessarily dependent upon the place at which information was collected for the individual but it can be simplified by the proper choice of a place of enumeration.

1.238. If a "present-in-area" population distribution only is wanted, it is logical to enumerate each person at the place where he or she is (or was) present at the time of the census. If a distribution by usual residence only is required, it is more satisfactory to collect the information about each person at the person's place of usual residence. It should be noted, however, that it is not always possible to collect information about each individual at his or her usual residence, as for example, when an entire household is away from its usual residence at the time of the census. Some provision must therefore be made for collecting information about such persons at the place where they are found at the time of the census.

1.239. With the growing interest in information on households and families and on internal migration, it is becoming increasingly desirable to prepare tabulations on the basis of usual residence rather than on the basis of place where present, since the latter is often temporary and so is not useful for the investigation of the above-mentioned topics. Also, although it is comparatively simpler to enumerate each person where present on the day of the census and to use a present-in-area population distribution, a usual-residence distribution is likely to be more accurate than a present-in-area distribution, if the time required for enumeration is so long as to permit considerable movement of persons during the interval.

1.240. If it is desired also to obtain information on both the usually resident population and the present-in-area population, then either each person present in each household on the census day or each person present and each usual resident temporarily absent can be enumerated at the appropriate household. A clear distinction must then be made on the questionnaire, as applicable, among (a) persons usually resident and present on the day of the census, (b) persons usually resident but temporarily absent on the day of the census, and (c) persons not usually resident but temporarily present on the day of the census.

1.241. Depending on the categories of persons enumerated at any given place, information may then be collected on the usual residence (address) of those only temporarily present and on the place (address) at which each temporarily absent person can be found. This information can be used for allocating persons to the

household and geographical area with which they are to be counted and for checking to be certain that no person is counted twice (i.e., at both the usual residence and the place where present). The procedures to be followed at the enumeration and through the subsequent allocation of persons must, however, be very carefully planned and strictly adhered to if the allocation is to be accurate.

1.242. With the exception of mobile housing units, living quarters and buildings have a fixed location and the place where they are to be enumerated has not, therefore, to be considered in taking a housing census. Information on households, however, and the persons in households can be collected and entered on the housing census questionnaire either where they are (or were) present on the day of the census or at the usual residence. The procedure followed in the housing census should be governed by that adopted in carrying out the population census if the two censuses are carried out simultaneously. If the housing census is an independent operation, however, the procedure to be followed should be carefully considered since it may have a significant effect on the validity of the results of the housing census.

1.243. Where persons and households are allocated to the place of usual residence, they should also be allocated to the living quarters that they usually occupy. The living quarters that they are actually occupying at the time of the census should be counted as vacant if they are conventional dwellings or they should be excluded from the census if they are of a type other than conventional dwellings. 14/

1.244. Mobile housing units represent a special case as far as the place of enumeration is concerned. They should be enumerated where they are found on the day of the census; however, in accordance with the procedure adopted for the allocation of the population, mobile housing units may also be allocated to the area where the occupants usually reside provided that they are the usual living quarters of the occupants in the area of usual residence. Where they are not the usual living quarters of the occupants in the area of usual residence, the occupants would be allocated to their usual living quarters and the mobile housing unit would be excluded from the census.

C. Enumeration point of time

1.245. One of the essential features of population and housing censuses is that each person and/or each set of living quarters must be enumerated as nearly as possible in respect of the same well-defined point of time. This is usually accomplished by fixing a census "moment" at midnight at the beginning of the census day if there is only a single census day.

1.246. For the population census, each person alive up to the census moment is included on a census schedule and counted in the total population, even though the process of completing the schedule does not take place until after the census moment or even after the census day and the person may have died in the interim. Infants born after the census moment are not to be entered on a schedule or

14/ By definition, all living quarters except conventional dwellings are required to be occupied in order to be included in the census.

included in the total population, even though they may be living when the other persons in their household are enumerated.

1.247. For the housing census, each set of living quarters that has reached an established stage of completion and that is not scheduled for, or in the process of, demolition should be included on a census schedule and counted as part of the housing inventory even though the process of completing the schedule does not take place until after the census moment or even after the census day and the living quarters may have been scheduled for demolition in the interim. Living quarters that have attained the prescribed state of completion after the census moment are not to be entered on a schedule (unless special instructions are issued for recording living quarters under construction) nor should they be included in the total number of living quarters.

1.248. Where the amount of time required for enumeration in the census is considered to be so long that the population is not likely to be able to supply information as of a single moment in the past, it may be necessary to employ different points of time in the enumeration, even to the extent of using the night before the visit by the enumerator. If such a procedure is followed, it should be clearly explained in the census report and the total duration of the enumeration should be stated. For ease of reference and for the computation of intercensal indices, it is useful to designate a single date in the enumeration period as the official "census date". This date could be, for example, the day by which half of the population had been enumerated.

D. Time-reference period for data on the characteristics
of the population and of living quarters

1.249. The data collected about the characteristics of the population and of living quarters should be pertinent to a well-defined reference period. The time-reference period need not, however, be identical for all of the data collected. For most of the data, it will be the census moment or the census day; in some instances, however, it may be a brief period just prior to the census, as in the case of economic characteristics and of rental, or a longer period of time, as in the case of fertility questions and information on the period of construction of the building in which the living quarters are located.

Part Two

Topics and tabulations for population censuses

V. TOPICS TO BE INVESTIGATED IN POPULATION CENSUSES

A. Factors determining the selection of topics

2.1. The topics to be covered on the questionnaire (that is, the subjects regarding which information is to be collected for each individual) should be determined upon balanced consideration of (a) the needs of the country (local as well as national) to be served by the census data; (b) achievement of the maximum degree of international comparability, both within regions and on a world-wide basis; (c) the probable willingness and ability of respondents to give adequate information on the topics; and (d) the total national resources available for the enumeration, processing, tabulation, publication and establishment of a data base, which will determine the over-all feasible scope of the census.

2.2. In making the selection of topics, due regard should be paid to the usefulness of historical continuity in providing the opportunity for comparison of changes over a period of time. Census takers should, however, avoid collecting information that is no longer required simply because it was traditionally collected in the past. It becomes necessary, therefore, to review periodically the topics traditionally investigated and to re-evaluate the need for the series to which they contribute.

1. Priority of national needs

2.3. Prime importance should be given to the fact that population censuses should be designed to meet national needs. Should any conflict exist among national needs, regional recommendations and global recommendations, national needs should take precedence, followed by the regional recommendations and finally the global recommendations. The first consideration is that the census should provide information on the topics of greatest value to the country, with questions framed in such a way as to elicit data of maximum use to that country. Experience has shown that national needs will be best served if the census includes topics generally recognized as of basic value and defined in accordance with regional and global standards. Nevertheless, each country's decision should depend upon a balanced appraisal of how urgently the data are needed and whether the information could be obtained equally well or better from other sources. It is also recognized that many countries will find it necessary to include topics of particular national or local interest in addition to the topics included in the regional and global recommendations.

2. Importance of international comparability

2.4. The desirability of achieving regional and world-wide comparability should be another major consideration in the selection and formulation of topics for the census schedule. National and international objectives are usually compatible, however, since international recommendations, being based on a broad study of country experience and practice, are recommendations of definitions and methods which have successfully met general national needs. Furthermore, the analysis of census data for national purposes will often be facilitated if, by the use of international recommendations, it is possible to compare the data with those of

other countries on the basis of consistent concepts, definitions and classifications.

2.5. If the particular circumstances within a country require departures from international standards, every effort should be made to explain these departures in the census publications and to indicate how the national presentation can be adapted to the international standards.

3. Suitability of topics

2.6. The topics investigated should be such that the respondents will be willing and able to provide adequate information on them. Thus, it may be necessary to avoid topics likely to arouse fear, local prejudice or superstition, and questions too complicated and difficult for the average respondent to answer easily or for the enumerator to deal with. The exact phrasing of each question that is needed in order to obtain the most reliable response will of necessity depend on national circumstances.

4. Resources available

2.7. The selection of topics should be carefully considered in relation to the total resources available for the census. An accurate and efficient collection of data for a limited number of topics, followed by prompt tabulation and publication, is more useful than the collection of data for an over-ambitious list of topics, which cannot properly be investigated, tabulated or stored in the data base. In balancing the need for data against resources available, the extent to which questions can be pre-coded should be considered. This may be an important factor in determining whether or not it is economically feasible to investigate certain topics in the census.

B. List of topics

2.8. The population topics given in list A (para. 2.15) and list B (para. 2.16) below have emerged as a result of meetings convened by the regional commissions and the Inter-American Statistical Institute to revise their respective regional recommendations for population and housing censuses. Based on these meetings, five sets of regional recommendations have been formulated for population and housing censuses. List A contains the population topics that are included as "priority topics" ^{15/} in the majority of the regional recommendations. List B contains the population topics that, while not falling into list A, are included by the majority of regions when both "priority" and "other useful" ^{16/} topics are taken into consideration. List C, consisting of all population topics not falling into either of the first two lists but mentioned in the recommendations of at least one region, is given in annex I to the present publication.

^{15/} Priority topics are variously designated in the regional recommendations as "recommended topics", "recommended topics of first priority" or "basic topics".

^{16/} "Other useful" topics are those included without priority in the various regional recommendations. It is felt that their investigation should generally be considered only after it is determined that information on the priority topics will be made available.

2.9. Because of the considerable population census experience now available in each of the regions, it is no longer considered necessary to distinguish between "priority" topics and "other useful" topics on a global basis. Rather, it is recommended that each country take into consideration in the first place the topics accorded priority in its region. Only after this should it consider the need and the feasibility of also investigating what are considered to be "other useful" topics in its region and, finally, the remaining topics included in lists A, B and C.

2.10. To assist countries in using the present document and in determining their own priorities, lists A and B are consolidated in paragraph 2.17, in which topics given in list A are distinguished from those in list B. Further, a tabular presentation of the "priority" and "other useful" topics in each set of regional recommendations is set forth in annex II to the present publication.

2.11. Although the basis for the selection of topics for the present global programme differs from the basis employed in the global recommendations for the 1970 censuses, it should be noted that the topics currently included differ only slightly from those included in the 1970 recommendations. It may be concluded, therefore, that experience during the 1970 census decade has demonstrated that there is a core of topics on which there is considerable agreement among the regions in regard both to their importance and to the feasibility of collecting the data in a census. Those likely to present difficulties that require time-consuming questioning can probably best be collected for a sample of the population. The exceptions to the consensus occur, at the one extreme, among the countries with the most developed statistical systems, where adequate data on a number of the topics listed are available from non-census sources; at the other extreme are the countries in which data-collection opportunities are limited and it is felt that advantage must be taken of the possibilities offered by the census to investigate topics that might, under better circumstances, be investigated more suitably by other means.

2.12. The topics in lists A and B and in paragraph 2.17 are grouped under six headings, as required: "Geographical and migration characteristics", "Household characteristics", "Demographic and social characteristics", "Fertility and mortality", "Educational characteristics" and "Economic characteristics". The headings are not entirely mutually exclusive; some of the topics, such as "marital status", could appear under more than one heading. In such cases, the topic appears under the first heading to which it is relevant.

2.13. Within each heading, a distinction is made between topics that appear on the questionnaire and derived topics. The former are those for which data are collected by a specific question on the questionnaire. Although data for the derived topics also come from information on the questionnaire, they do not necessarily come from replies to a specific question. "Total population", for example, is derived from a count of the persons entered on the questionnaires as present or resident in each geographical unit. Such derived topics may, perhaps, be more correctly considered as tabulation components, but they are listed as topics in order to emphasize the fact that the questionnaire must in some way yield this information.

2.14. The paragraph numbers in parentheses after each entry in paragraphs 2.15-2.17 refer either to the paragraphs in which the group of topics as a whole is discussed in section C below or to the paragraphs in which the definition and specifications of individual topics are discussed.

2.15. The topics included in list A are shown below. They appear as "priority" topics in the majority of regional recommendations.

List A

Topics that appear on the questionnaire

Derived topics

Geographical and migration characteristics (paras. 2.19-2.61)

Place of usual residence (paras. 2.21-2.25) and/or	Total population (paras. 2.44-2.50)
Place where present at time of census (paras. 2.26-2.29)	Locality (paras. 2.51-2.53)
Place of birth (paras. 2.30-2.36)	Urban and rural (paras. 2.54-2.56)
Duration of residence (paras. 2.37-2.39)	
Place of previous residence (paras. 2.40-2.41)	
Place of residence at a specified date in the past (paras. 2.42-2.43)	

Household /or family/ characteristics (paras. 2.62-2.85)

Relationship to head or other reference member of household /or family/ <u>17/</u> (paras. 2.65-2.72)	Household /or family/ composition <u>17/</u> (paras. 2.73-2.85)
---	--

Demographic and social characteristics (paras. 2.86-2.118)

Sex (para. 2.87)
Age (paras. 2.88-2.96)
Marital status (paras. 2.97-2.104)
Citizenship (paras. 2.105-2.109)

Fertility and mortality (paras. 2.119-2.148)

Children born alive (paras. 2.124-2.127)
Children living (paras. 2.128-2.130)

17/ "Relationship to head or other reference member of family" and "Family composition" are appropriate to censuses in which the family (as defined in para. 2.75) is used as a unit of investigation in place of the household. See paras. 2.62 and 2.63 for the difference between the concept of household and the concept of family as used in these topics.

Topics that appear on
the questionnaire

Derived topics

Educational characteristics (paras. 2.149-2.179)

Educational attainment (paras. 2.151-2.163)

Literacy (paras. 2.164-2.167)

School attendance (paras. 2.168-2.171)

Economic characteristics (paras. 2.180-2.219)

Activity status (paras. 2.188-2.197)

Occupation (paras. 2.198-2.201)

Industry (paras. 2.202-2.205)

Status in employment (paras. 2.206-2.208)

2.16. Topics included in list B are shown below. They are not included in list A but included by the majority of regions when both "priority" and "other useful" topics are taken into consideration. No "derived topics" are included in this list, because all the topics appear on the questionnaire.

List B

Demographic and social characteristics (paras. 2.86-2.118)

Religion (paras. 2.110-2.112)

Language (paras. 2.113-2.116)

National and/or ethnic group (paras. 2.117-2.118)

Fertility and mortality (paras. 2.119-2.148)

Age at marriage (paras. 2.131-2.134)

Duration of marriage (paras. 2.135-2.138)

Live births within the 12 months preceding the census (paras. 2.139-2.143)

Deaths of infants born within the 12 months preceding the census
(paras. 2.144-2.145)

Maternal orphanhood (paras. 2.146-2.148)

Educational characteristics (paras. 2.149-2.179)

Educational qualifications (paras. 2.172-2.179)

Economic characteristics (paras. 2.180-2.219)

Time worked (paras. 2.209-2.211)

Income (paras. 2.212-2.215)

Sector of employment (paras. 2.216-2.219)

2.17. In the following consolidated list of all the topics shown in lists A and B above, topics that appear in list A, i.e. those that are "priority" topics in the majority of regions, are preceded by an asterisk.

Topics that appear on
the questionnaire

Derived topics

1. Geographical and migration characteristics (paras. 2.19-2.61)

- | | |
|---|---|
| (a) *Place of usual residence (paras. 2.21-2.25)
and/or | (g) *Total population
(paras. 2.44-2.50) |
| (b) *Place where present at time of census
(paras. 2.26-2.29) | (h) *Locality (paras. 2.51-2.53) |
| (c) *Place of birth (paras. 2.30-2.36) | (i) *Urban and rural
(paras. 2.54-2.61) |
| (d) *Duration of residence (paras. 2.37-2.39) | |
| (e) *Place of previous residence
(paras. 2.40-2.41) | |
| (f) *Place of residence at a specified date
in the past (paras. 2.42-2.43) | |

2. Household /or family/ characteristics (paras. 2.62-2.85)

- | | |
|---|---|
| (a) *Relationship to head or other
reference member of household
/or family/ 17/ (paras. 2.65-2.72) | (b) *Household /or family/
composition 17/
(paras. 2.73-2.85) |
|---|---|

3. Demographic and social characteristics (paras. 2.86-2.118)

- (a) *Sex (para. 2.87)
- (b) *Age (paras. 2.88-2.96)
- (c) *Marital status (paras. 2.97-2.104)
- (d) *Citizenship (paras. 2.105-2.109)
- (e) Religion (paras. 2.110-2.112)
- (f) Language (paras. 2.113-2.116)
- (g) National and/or ethnic group (paras. 2.117-2.118)

4. Fertility and mortality (paras. 2.119-2.148)

- (a) *Children born alive (paras. 2.124-2.127)
- (b) *Children living (paras. 2.128-2.130)
- (c) Age at marriage (paras. 2.131-2.134)
- (d) Duration of marriage (paras. 2.135-2.138)
- (e) Live births within the 12 months
preceding the census (paras. 2.139-2.143)
- (f) Deaths of infants born within the 12 months
preceding the census (paras. 2.144-2.145)
- (g) Maternal orphanhood (paras. 2.146-2.148)

Topics that appear on
the questionnaire

Derived topics

5. Educational characteristics (paras. 2.149-2.179)

- (a) *Educational attainment (paras. 2.151-2.163)
- (b) *Literacy (paras. 2.164-2.167)
- (c) *School attendance (paras. 2.168-2.171)
- (d) Educational qualifications (paras. 2.172-2.179)

6. Economic characteristics (paras. 2.180-2.219)

- (a) *Activity status (paras. 2.188-2.197)
- (b) *Occupation (paras. 2.198-2.201)
- (c) *Industry (paras. 2.202-2.205)
- (d) *Status in employment (paras. 2.206-2.208)
- (e) Time worked (paras. 2.209-2.211)
- (f) Income (paras. 2.212-2.215)
- (g) Sector of employment (paras. 2.216-2.219)

C. Definitions and specifications of topics

2.18. This section contains the recommended definitions and specifications of the topics included in lists A and B above, presented in the order in which they appear in paragraph 2.17 above. It is important that census data be accompanied by the definitions used in carrying out the census. It is also important that any changes in definitions that have been made since the previous census be indicated and, if possible, accompanied by estimates of the effect of such changes on the relevant data, in order to ensure that users will not confuse valid changes over a period of time with increases or decreases resulting from changed definitions.

1. Geographical and migration characteristics

2.19. It should be noted that "place of usual residence" and "place where present at time of census" may be considered as alternative topics when countries have not the resources to investigate both topics for general census purposes. Some countries, however, will want to investigate both topics for general purposes. The relationship between the two topics and their further relationship to the place at which each person is enumerated is set forth in chapter IV.

2.20. It is recommended that countries investigating only "place where present at time of census" for general purposes should also obtain information on "place of usual residence" for all persons who do not usually reside at the household where they were enumerated, to be used in connexion with the information on "place of birth", "duration of residence", "place of previous residence" and/or "place of residence at a specified date in the past" in determining internal migration status. If, in the compilation of the population of geographical units, persons are allocated to the place where they were present at the time of the census, information on the four above-mentioned migration characteristics is irrelevant for

persons who were only visiting, or transient in, the place at which they were present. Since such persons must, in any case, be identified in the questionnaire as non-residents so that they will not erroneously be classified as recent in-migrants, a question on their place of usual residence can be put easily and will make it possible to include the entire population in the tabulation of internal migration characteristics.

(a) Place of usual residence

2.21. The place of usual residence is the geographical place where the enumerated person usually resides. This may be the same as, or different from, the place where he or she was present at the time of the census or his or her legal residence.

2.22. Although most persons will have no difficulty in stating their place of usual residence, some confusion is bound to arise in a number of special cases, where persons may appear to have more than one usual residence. These cases might include persons who maintain two or more residences, students living at a school away from their parental home, members of the armed forces living at a military installation but still maintaining private living quarters away from the installation and persons who sleep away from their homes during the working week but return home for several days at the end of each week. The treatment of all such cases should be clearly set forth in the census instructions.

2.23. Problems may also arise with persons who have been at the place where they are enumerated for some time but do not consider themselves to be residents of this place because they intend to return to their previous residence at some future time, and also with persons who have left the country temporarily but are expected to return after some time. In such instances, clearly stated time-limits of presence in, or absence from, a particular place must be set, in accordance with the prevailing circumstances in the country, to determine whether or not the person is usually resident there.

2.24. If each person is to be entered on the questionnaire only at his or her place of usual residence, the topic need not be investigated separately for each person, because the information will be available from the location information entered for the questionnaire as a whole.

2.25. Information on the place of usual residence should be collected in enough detail to enable tabulations to be made for the smallest geographical subdivisions required by the tabulation plan and to meet the requirements of the data base.

(b) Place where present at time of census

2.26. The place where present at the time of the census is, in theory, the geographical place at which each person was on the day of the census, whether or not this was his or her place of usual residence. In practice, the concept is generally applied to the place where the person slept on the night preceding the census day, because many persons appearing in the questionnaire are not physically present at the place of enumeration during most of the day.

2.27. As mentioned in chapter IV, the concept is sometimes further extended to apply to the night preceding the day of actual enumeration in cases where the enumeration extends over a long period of time and persons are not likely to be able to supply information as of a single moment in the past. Other departures

from the definition may be necessary to deal with individual cases, such as persons travelling during the entire night or day of the census and persons who spent the night at work.

2.28. If each person is to be entered on the questionnaire only at the place where he or she was present at the time of the census, the topic need not be investigated separately for each person, because the information will be available from the location information entered for the questionnaire as a whole.

2.29. Information on the place where each person was present should be collected in enough detail to enable tabulations to be made for the smallest geographical subdivisions required by the tabulation plan and to meet the requirement of the data base.

(c) Place of birth

2.30. The place of birth is, in the first instance, the country in which the person was born. It should be noted that the country of birth is not necessarily related to citizenship (see para. 2.105), which is a separate topic. For persons born in the country where the census is taken (natives), the concept of place of birth also includes the specified type of geographical unit of the country in which the mother of the individual resided at the time of the person's birth. In some countries, however, the place of birth of natives is defined as the geographical unit in which the birth actually took place. Each country should explain which definition it has used in the census.

2.31. The collection of information distinguishing between persons born in the country where the census is taken (natives) and those born elsewhere (foreign born) is necessary where any inquiry on place of birth is made. Even countries where the proportion of foreign-born population is insignificant, which therefore desire to compile information only on the place of birth of the native population, must first separate the native from the foreign-born population. It is therefore recommended that place of birth be asked of all persons. For respondents who cannot name their country of birth, at least the continent should be ascertained. Although enumeration is somewhat simpler if the question is only in terms of native or foreign birth, collecting information on the country of birth ensures more accurate returns although with some additional processing costs. It also provides information on the origin of the immigrant stock of the country. Countries with substantial numbers of immigrants may also wish to consider the possibility of asking an additional question on date or year of immigration in accordance with the recent recommendations on international migration statistics. 18/

2.32. For purposes of international comparability, as well as for internal use, it is preferable that information on the country of birth be available according to national boundaries existing at the time of the census. To ensure such comparability, however, it may be necessary to obtain information not only on the country of birth but also on the major territorial division or even the specific locality, so that the reported place of birth can be correctly allocated to countries according to present boundaries. The necessity of such detailed reporting should be carefully weighed considering (a) the probable number of

18/ Recommendations on Statistics of International Migration (United Nations publication, Sales No. E.79.XVII.18).

foreign-born persons from countries that have lost or gained territory and (b) the cost of coding a large number of specific foreign locations.

2.33. Information on the place of birth of the native population is usually used primarily for the investigation of internal migration. For those countries that have been recently formed of parts of previously separate entities, however, it may be of use in assessing the relative size of the population segments from each of the previous entities, and their distribution throughout the country.

2.34. For the latter purpose, it is usually sufficient to collect information only on the major civil division (state, province, department etc.) in which the place of birth is located. If desired, more detailed information on the subdivision or specific locality can be collected and used for accurate coding of the major division or for presenting data for smaller areas.

2.35. For studies of internal migration, data on the place of birth of the native population, particularly in terms of major civil divisions, are not adequate in themselves. In order to provide at least some measure of net internal migration into large cities by the use of data on place of birth within the country, it would be necessary to collect information for persons resident in each city, distinguishing those who were born in that city, those born elsewhere in the same major civil division and those born in another major civil division. Similar information for persons in each intermediate or minor civil division could be obtained by extending the question on place of birth within the country so that data would be collected on intermediate or minor, as well as major, civil divisions. It should be borne in mind, however, that the people of many developing countries, where internal migration poses many serious problems, may not be able to provide the details that would warrant any attempt to collect this type of information. Even in the statistically advanced countries, confusion is bound to arise from changes in the boundaries of minor civil divisions and from the possible tendency of persons born near a large city to name that city as their birth-place.

2.36. It is recommended, therefore, that for the study of internal migration the data on place of birth be supplemented by the collection of information on duration of residence and place of previous residence or of information on residence at a specified date in the past.

(d) Duration of residence

2.37. The duration of residence is the interval of time up to the date of the census, expressed in complete years, during which each person has lived in (a) the locality which is his or her usual residence at the time of the census and (b) the major or smaller civil division in which that locality is situated.

2.38. Data on the duration of residence have only limited value in themselves because they do not provide information on the place of origin of in-migrants. Therefore, when the topic is investigated, the place of previous residence should also be investigated if at all possible, so that the data can be cross-classified.

2.39. In collecting information on duration of residence, it should be made clear that the concern is with length of residence in the major or smaller civil division and the locality but not in the particular housing unit.

(e) Place of previous residence

2.40. The place of previous residence is the major or smaller civil division, or the foreign country, in which the individual resided immediately prior to migrating into his or her present civil division of usual residence.

2.41. Data on the place of previous residence have only limited value in themselves because they do not provide information on the time of in-migration. Therefore, when the topic is investigated, the duration of residence should also be investigated if at all possible, so that the data can be cross-classified.

(f) Place of residence at a specified date in the past

2.42. The place of residence at a specified date in the past is the major or smaller civil division, or the foreign country, in which the individual resided at a specified date preceding the census. The reference date chosen should be the one most useful for national purposes. In most cases, this has been deemed to be one or five years preceding the census. The former reference date provides current statistics of migration during a single year; the latter may be more appropriate for collecting data for the analysis of international migration although perhaps less suitable for the analysis of current internal migration. Also to be taken into account in selecting the reference date should be the probable ability of individuals to recall with accuracy their usual residence one or five years earlier than the census date. For countries conducting quinquennial censuses, the five-year date can be readily tied in, for most persons, with the time of the previous census. In other cases, one-year recall may be more likely than five-year recall. Some countries, however, may have to use a different time reference than either one or five years preceding the census because both of these intervals may present recall difficulties. National circumstances may make it necessary for the time reference to be one that can be associated with the occurrence of an important event that most people will remember.

2.43. No matter what previous date is used, provision must be made for the treatment of infants and young children not yet born at that date. Tabulations of the data should indicate the treatment of this group.

(g) Total population

2.44. For census purposes, the total population of the country consists of all the persons falling within the scope of the census. In the broadest sense, the total may comprise either all usual residents of the country or all persons present in the country at the time of the census. The total of all usual residents is generally referred to as the de jure population and the total of all persons present as the de facto population.

2.45. In practice, however, countries do not usually achieve either type of count, because one or another group of the population is included or excluded, depending on national circumstances, despite the fact that the general term used to describe the total might imply the opposite treatment. It is recommended therefore that each country describe in detail the figure accepted officially as the total, rather than simply to label it as de jure or de facto.

2.46. The description should clearly show whether each of the groups listed below was or was not counted in the total. If the group was enumerated, its magnitude

should be given; if it was not enumerated, an estimate of its size should be given, if possible. If any group is not represented at all in the population, this fact should be stated and the magnitude of the group should be shown as "zero". This may occur particularly with groups (a), (b), (d) and (n).

2.47. The groups to be considered are:

- (a) Nomads;
- (b) Persons living in areas to which access is difficult;
- (c) Military, naval and diplomatic personnel and their families located outside the country;
- (d) Merchant seamen and fishermen resident in the country but at sea at the time of the census (including those who have no place of residence other than their quarters aboard ship);
- (e) Civilian residents temporarily in another country as seasonal workers;
- (f) Civilian residents who cross a frontier daily to work in another country;
- (g) Civilian residents other than those in groups (c), (e) and (f) who are working in another country;
- (h) Civilian residents other than those in groups (c)-(g) who are temporarily absent from the country;
- (i) Foreign military, naval and diplomatic personnel and their families located in the country;
- (j) Civilian aliens temporarily in the country as seasonal workers;
- (k) Civilian aliens who cross a frontier daily to work in the country;
- (l) Civilian aliens other than those in groups (i), (j) and (k) who are working in the country;
- (m) Civilian aliens other than those in groups (i)-(l) who are temporarily in the country;
- (n) Transients on ships in harbour at the time of the census.

2.48. In the case of groups (h) and (m), it is recommended that an indication be given of the criteria used in determining that presence in, or absence from, the country is temporary.

2.49. In those countries where the total population figure has been corrected for under-enumeration or over-enumeration, both the enumerated figure and the estimated corrected population figure should be shown and described. The detailed tabulations will of necessity be based only on the actual enumerated population.

2.50. The population of each geographical unit of the country, like the total population of the country (see para. 2.44), may comprise either all usual residents

of the unit (see para. 2.21) or all persons present in the unit at the time of the census (see paras. 2.26 and 2.27).

(h) Locality

2.51. For census purposes, a locality should be defined as a distinct population cluster (also designated as inhabited place, populated centre, settlement etc.) in which the inhabitants live in neighbouring living quarters and which has a name or a locally recognized status. It thus includes fishing hamlets, mining camps, ranches, farms, market towns, villages, towns, cities and many other population clusters which meet the criteria specified above. Any departure from this definition should be explained in the census report as an aid to the interpretation of the data.

2.52. Localities as defined above should not be confused with the smallest civil divisions of a country. In some cases, the two may coincide. In others, however, even the smallest civil division may contain two or more localities. On the other hand, some large cities or towns may contain two or more civil divisions, which should be considered as segments of a single locality rather than as separate localities.

2.53. A large locality of a country (i.e. a city or a town) is often part of an urban agglomeration, which comprises the city or town proper and also the suburban fringe or thickly settled territory lying outside, but adjacent to, its boundaries. The urban agglomeration is, therefore, not identical with the locality but is an additional geographic unit, which may include more than one locality. In some cases, a single large urban agglomeration may comprise several cities or towns and their suburban fringes. The components of such large agglomerations should be specified in the census results.

(i) Urban and rural

2.54. Because of national differences in the characteristics that distinguish urban from rural areas, the distinction between urban and rural population is not yet amenable to a single definition that would be applicable to all countries, nor even, for the most part, to the countries within a region. Where there are no regional recommendations on the matter, countries must establish their own definitions in accordance with their own needs.

2.55. The traditional distinction between urban and rural areas within a country has been based on the assumption that urban areas, no matter how they are defined, provide a different way of life and usually a higher level of living than is found in rural areas. In many industrialized countries, this distinction has become blurred and the principal difference in the circumstances of living between urban and rural areas tends to be a matter of the degree of concentration of population. Although the differences between urban and rural ways of life and levels of living remain significant in developing countries, rapid urbanization in these countries has created a great need for information related to different sizes of urban areas.

2.56. Hence, although the traditional urban-rural dichotomy is still needed, a classification by size of locality can usefully supplement the dichotomy or even replace it where the major concern is with characteristics related only to density along the continuum from the most sparsely settled areas to the most densely

built-up localities. A basic classification by five size-categories has been recommended for the ECE countries. 19/

2.57. Density of settlement may not, however, be a sufficient criterion in many countries, particularly where there are large localities that are still characterized by a truly rural way of life. Such countries will find it necessary to use additional criteria in developing classifications that are more distinctive than a simple urban-rural differentiation. Some of the additional criteria that may be useful are the percentage of the economically active population employed in agriculture, the general availability of electricity and/or piped water in living quarters and the ease of access to medical care, schools and recreation facilities. In some countries, where the facilities noted above are available in some areas that are still rural in that agriculture is the predominant employment, it might be advisable to adopt different criteria in different parts of the country. Care must be taken, however, to ensure that the definition used does not become too complicated for application to the census and comprehension by the users of the census results.

2.58. Even in the industrialized countries, it may be considered appropriate to distinguish between agricultural localities, market towns, industrial centres, service centres and so forth, within size-categories of localities.

2.59. Even where size is not used as a criterion, the locality is the most appropriate unit of classification for national purposes as well as for international comparability. If it is not possible to use the locality, the smallest administrative unit of the country should be used.

2.60. Some of the information required for classification may be provided by the census results themselves, while other information may be obtained from external sources. The use of information provided by the census (as, for example, the size-class of the locality or the percentage of the population employed in agriculture), whether alone or in conjunction with information from other sources, means that the classification will not be available until the relevant census results have been tabulated. If, however, the census plans call for the investigation of a smaller number of topics in rural areas than in urban areas or for a greater use of sampling in rural areas, the classification must be available before the enumeration takes place. In these cases, reliance must be placed on external sources of information, even if only to bring up to date any urban-rural classification that was prepared at an earlier date.

2.61. The usefulness of housing census data (for example, the availability of electricity and/or piped water) collected simultaneously with, or not too long before, the population census should be kept in mind. Images obtained by remote sensing may be of use in the demarcation of boundaries of urban areas when density of habitation is a criterion. For assembling information from more than one source, the importance of a well-developed system of geo-coding should not be overlooked.

19/ Economic Commission for Europe, Recommendations for the 1980 Censuses of Population and Housing in the ECE Region, Statistical Standards and Studies, No. 31, paras. 33 and 34.

2. Household /or family/ characteristics

2.62. In considering the topics related to household /or family/ characteristics, it is important to be aware of the differences between the concepts of "household", and "family" as used herein. From the definitions of "household" (see paras. 2.73 and 2.74) and of "family" (see para. 2.75), it is clear that the household and the family are different concepts that cannot be used together as units of enumeration in the same census. Most countries use the household as the general framework within which most individuals are identified but some countries use the family.

2.63. The differences between the household and the family are that (a) a household may consist of only one person but a family must contain at least two members, and (b) the members of a multiperson household need not be related to each other, while the members of a family must be related. Where the family is used as the unit of enumeration, households cannot be identified. Where the household is the unit of enumeration, however, families within the household can be identified.

2.64. It should be noted, however, that the concept of the family nucleus is appropriate regardless of whether the household or the family is used as the unit of enumeration.

(a) Relationship to head or other reference member of household /or family/

2.65. In identifying the members of a household (as defined in paras. 2.73 and 2.74) or of a family (as defined in para. 2.75), it is traditional first to identify the household or family head and then the remaining members of the household or family according to their relationship to the head. The head of the household or of the family is defined as that person in the household or the family who is acknowledged as such by the other members. (Although it has been agreed that a more desirable definition for purposes of dependency statistics would be the person who bears the chief responsibility for the economic maintenance of the household or family, it is not recommended that this definition be applied because of the difficulty of collecting information needed to determine economic responsibility.) 20/

2.66. The procedure set forth in paragraph 2.65 is based on the fact that most households are family households (i.e., they consist entirely, except possibly for domestic servants, of persons related by blood, marriage or adoption) and the assumption that one person in the household, i.e., the head, has primary authority and responsibility for household affairs and, in the majority of cases, is its chief economic support. In applying the concept of head of the household, however, special rules have always been needed for particular cases where household authority and responsibility have clearly not been vested in one person, such as in a household consisting of siblings without a parent or composed entirely of unrelated persons. In such cases, a head has usually been designated according to predetermined rules.

2.67. In most countries of the world, this procedure is still appropriate but in countries where spouses are considered equal in household authority and responsibility and may share economic support of the household, the concept of

20/ In the remaining paragraphs relating to this topic, the word "household" is used to mean "household or family".

head of household is no longer considered valid even for family households. In order for the relationship among members of the household to be determined, the latter countries may prefer (a) that the members of the household designate one among them as a reference member with no implication of headship or (b) that provision be made for designations of joint headship where desired. These possibilities have been taken into account in the regional census recommendations for the European countries, which should be consulted for further details. 21/

2.68. Even in the many countries where the concept of head of household is still relevant, it is important to recognize that the procedures followed in applying the concept have distorted the true picture, particularly in regard to female heads of households. The most common assumption that can distort the facts is that no woman can be in fact the head of any household that also contains an adult male. In some cases, instructions to enumerators may explicitly state that a woman can be entered as head only in the absence of any male above a specified age. In other cases, even where there are no such instructions, enumerators and even respondents may simply take some such assumption for granted.

2.69. This common sex-based stereotype often reflects circumstances that may have been true in the past but are no longer true, as the household and economic roles of women are changing. The extent to which the situation has or has not changed cannot be measured, however, unless the stereotype is avoided to the extent possible by clear instructions to enumerators to ask who is the head of the household and not to make any assumptions of their own. The procedure to follow in identifying a head when the members of the household are unable to do so should be equally clear and unambiguous and should avoid sex-based bias.

2.70. After identification of the head or other reference member of the household, the remaining members of the household should be distinguished in relation to that person, as appropriate, as: (a) spouse, (b) child, (c) spouse of child, (d) grandchild or great-grandchild, (e) parent (or parent of spouse), (f) other relative, (g) domestic employee or (h) other person not related to the head or other reference member. Where this classification is considered too detailed for successful collection of the information, categories (e) and (g) may be eliminated; persons who would fall into either of these categories can then be identified, as appropriate, as "other relative" or "person not related to the head or other reference member".

2.71. As an aid to the identification of conjugal family nuclei (as defined in para. 2.80) within the household, it may be helpful if persons appear in the questionnaire to the extent possible in the order of nuclear relationship. Thus, the first person entered after the head or other reference person would be the spouse of that person, followed by unmarried children and then by married children, their spouses and children. For polygamous households, the order of entry could be such that each wife and her unmarried children appear in succession.

2.72. For estimating fertility by the "own children" method (see para. 2.123), the natural mother of each child under 15 years of age should be identified if she appears in the same questionnaire as her child. The information is not relevant for stepchildren, adopted children or foster children under permanent or temporary care.

21/ Economic Commission for Europe, op. cit., para. 99.

(b) Household /or family/ composition

2.73. As set forth in chapter IV, a household may either be (a) a one-person household, that is, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multiperson household or (b) a multiperson household, that is, a group of two or more persons living together 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 to a greater or lesser extent; they may be related or unrelated persons or a combination of both.

2.74. Households usually occupy the whole, part of or more than one housing unit but they may also be found living in camps, in boarding houses or hotels or as administrative personnel in institutions, or they may be homeless.

2.75. As defined in chapter IV, the family that is sometimes used as a unit of enumeration in place of the household consists of a group of related persons living together and having a common budget.

2.76. Where the household is the unit of enumeration, the concept of the family within the household is also of interest. The family within the household is defined 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 family in this sense is dependent upon the uses to which the data are to be put and so cannot be established for world-wide use.

2.77. Although the family is identified from the answers to the question on relationship to the head or other reference member of the household, household and family are separate unique entities that are not interchangeable.

2.78. A family cannot comprise more than one household; a household can, however, consist of more than one family, of one or more families together with one or more non-related persons or entirely of non-related persons. In practice, most households are composed of a single family consisting of a married couple without children or of one or both parents and their unmarried children. It should not be assumed, however, that this identity exists; census tabulations should, therefore, clearly indicate whether they relate to households or to families within households.

2.79. Household and family composition can be examined from different points of view but, for census purposes it is recommended that the primary aspect that should be considered is the conjugal family nucleus. 22/

2.80. A family nucleus consists of one 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. Couples living in consensual unions should be regarded as married couples.

2.81. In accordance with the above definition, a household consisting of a married

22/ The term "family nucleus" used in the remainder of the present publication is to be taken as referring to the conjugal family nucleus.

couple, their two never-married children, one of their children who has been divorced, and a married daughter and her husband would be considered to be composed of two family nuclei, with the divorced child not a member of either.

2.82. It is obvious that the family nucleus, although it includes the most likely compositions, does not take account of other relatives who may compose census families of a different structure, such as unmarried brothers or sisters living together without their parents, or an aunt living with an unmarried niece. It also excludes a related person living with a family nucleus as defined above, for example a widowed parent living with her married son and his family. It does not, therefore, provide information on all families. Countries may, therefore, wish to extend the investigation of families in accordance with their own interests, in addition to their investigation of the family nucleus.

2.83. The family nucleus is identified from the answers to the question on relationship to the head or other reference member of the household, supplemented where necessary by information on name and marital status. The identification of offspring and their mothers mentioned in paragraph 2.72 and the order in which persons are entered on the questionnaire (see para. 2.71) may be of additional assistance in this respect. The identification of family nuclei is likely to be more complete in de jure than in de facto enumerations, because the latter do not take account of temporarily absent household members who may constitute part of a nucleus.

2.84. Households should be classified by type according to the number of family nuclei they contain and the relationship, if any, between the family nuclei and the other members of the household. The relationship should be through blood, adoption or marriage to whatever degree is considered pertinent by the country (see para. 2.76). The types to be distinguished should be:

- (a) One-person household;
- (b) Nuclear household, defined as a household consisting entirely of a single family nucleus;
- (c) Extended household, defined as a household consisting of either:
 - (i) A single family nucleus and other persons related to the nucleus;
 - (ii) Two or more family nuclei related to each other, without any other persons;
 - (iii) Two or more family nuclei related to each other plus other persons related to at least one of the nuclei; or
 - (iv) Two or more persons related to each other but none of whom comprises a family nucleus;
- (d) Composite household, defined as a household consisting of either:
 - (i) A single family nucleus plus other persons, some of whom are related to the nucleus and some of whom are not;
 - (ii) A single family nucleus plus other persons, none of whom is related to the nucleus;

- (iii) Two or more family nuclei related to each other plus other persons, some of whom are related to at least one of the nuclei and some of whom are not related to any of the nuclei;
- (iv) Two or more family nuclei related to each other plus other persons, none of whom is related to any of the nuclei;
- (v) Two or more family nuclei not related to each other, with or without any other persons;
- (vi) Two or more persons related to each other but none of whom comprises a family nucleus, plus other unrelated persons; or
- (vii) Non-related persons only.

2.85. In the census tabulations, all countries should distinguish at least between one-person, nuclear, extended and composite households. Where feasible, the subcategories shown in paragraph 2.84 above should also be distinguished but countries may find it appropriate to modify the classification according to national circumstances. For example, in countries where almost all households contain only one family nucleus at most, the distinction between nuclear, extended and composite households may be applied only to households containing one nucleus or no nucleus; multinuclear households may be shown as an additional category without any further classification by type. In countries where multinuclear households are comparatively common, further breakdowns of extended and composite households, distinguishing those with three, four or more family nuclei, may be helpful.

3. Demographic and social characteristics

2.86. Of all the topics investigated in population censuses, "sex" and "age" are more frequently cross-classified with other characteristics of the population than are any other topics. Aside from the importance of the sex-age structure of the population in itself, accurate information on the two topics is fundamental to the great majority of the census tabulations. Possible difficulties in securing accurate age data are often not recognized because the topic appears to be a simple one. The difficulties are, therefore, stressed in paragraphs 2.89-2.93 below.

(a) Sex

2.87. The sex (male or female) of every individual should be recorded on the census questionnaire.

(b) Age

2.88. Age is the interval of time between the date of birth and the date of the census, expressed in completed solar years. Every effort should be made to ascertain the precise age of each person, particularly of children under 15 years of age.

2.89. Information on age may be secured either by obtaining the date (year, month and day) of birth or by asking directly for age at the person's last birthday.

2.90. The first method yields more precise information and should be used whenever circumstances permit. If the exact day and even month of birth are not known, an indication of the season of the year can be substituted. The question on date

of birth is appropriate wherever people know their birth dates, whether in accordance with the solar calendar or a lunar calendar and whether years are numbered or are identified in traditional folk-culture by names in a regular cycle. It is extremely important, however, that there should be a clear understanding between the enumerator and the respondent about which calendar system the date of birth is based on. If there is a possibility that some respondents will reply with reference to a different calendar system than will other respondents, provision must be made to note on the questionnaire the calendar system that has been used. It is not advisable for the enumerator to attempt to convert the date from one system to another. The needed conversion can best be carried out as part of the computer editing work.

2.91. The direct question on age is likely to yield less accurate responses for a number of reasons. Even if all responses are based on the same method of reckoning age, there is the possibility of misunderstanding on the part of the respondent as to whether the age wanted is that at the last birthday, the next birthday or the nearest birthday. In addition, rounding to the nearest age ending in zero or five, estimates not identified as such and deliberate misstatements can occur with comparative ease. Difficulties may arise in the reporting or in the recording of the information for children under one year of age, which may be given erroneously as "one year of age" rather than "0 years of age". These difficulties may be mitigated by collecting information on the date of birth of all children reported as "one year of age", while only the direct age question is used for the remainder of the population. Another possible approach question is to obtain age in completed months for children under one year. This method, however, can give rise to another type of recording error, that is, the substitution of "years" for "months", so that, for example, a three-month-old child is entered on the questionnaire as being three years of age.

2.92. An additional complication may occur with the use of the direct question if more than one method of calculating age is in use in the country. In some countries, certain segments of the population may use an old traditional method whereby persons are considered to be one year old at the time of birth and everyone advances one year in age at the same fixed date of each year. Other segments of the population in the same countries may use the Western method, in which a person is not regarded as one year old until 12 months after the date of birth and advances one year in age every succeeding 12 months. If there is a possibility of different methods of age calculation being used by respondents, provision must be made to make certain that the method used in each case is clear in the questionnaire and the conversion is left to the editing stage.

2.93. In spite of its drawbacks, the direct question on age is the only one to use when people cannot give even a birth year. For persons for whom information on age is not available or appears to be unreliable, an estimated age may have to be entered. This may occur with isolated cases in societies where knowledge of age is widespread or it may occur in general in cultures where there is little awareness of individual age and no interest in it. In the latter circumstances, criteria for making estimates should be provided in the instructions for the enumerators.

2.94. One of the techniques that has been used as an aid to the enumerators is to provide them with calendars of historical events of national or local significance to be used either in probing questions or to identify the earliest event the respondent recalls. Another technique is to pre-identify locally recognized age cohorts in the population and then to ask about membership in the cohort.

Enumerators may also ask if the person in question was born before or after other persons whose ages have been roughly determined. Further, use can be made of age norms for weaning, talking, marriage and so forth. Whatever techniques are used, enumerators should be impressed with the importance of securing age data that are as accurate as possible within the amount of time that they can devote to the topic. 23/

2.95. In view of the possible difficulties in the collection of age data, census tests should be used, as appropriate, to determine the difference in results with the use of a question on age as compared with a question on date of birth, what calendar and/or method of age reckoning most people use, and in what parts of the country age will have to be estimated for the majority of the population and what techniques to use as an aid to estimation. Testing of the calendar and/or method of age reckoning that most people use is particularly important where an official change from one to another calendar and/or method of reckoning has taken place recently enough so that it may not yet be in popular use among some or all of the population.

2.96. Enumerators who are likely to be called upon to estimate age in a substantial number of cases should be given training in the applicable techniques as part of their general training.

(c) Marital status

2.97. Marital status is the personal status of each individual in relation to the marriage laws or customs of the country. The categories of marital status to be identified are at least: (a) single, i.e. never married, (b) married, (c) widowed and not remarried, (d) divorced and not remarried and (e) married but separated.

2.98. In some countries, category (b) may require a subcategory of persons who are contractually married but not yet living as man and wife. In all countries, category (e) should comprise both legally and de facto separated, which may be shown as separate subcategories if desired. Regardless of the fact that couples who are separated may still be considered to be married (because they are not free to remarry) neither of the subcategories of (e) should be included in category (b).

2.99. In some countries it will be necessary to take into account customary unions (which are legal and binding under customary law) and extra-legal unions, the latter often known as de facto (consensual) unions.

2.100. The treatment of persons whose only or latest marriage has been annulled is dependent upon the relative size of this group in the country. Where the group is substantial in size, it should comprise an additional category if its size is insignificant, the individual should be classified according to their marital status before the annulled marriage took place.

2.101. Some countries have experienced difficulties in distinguishing (a) between formal marriages and de facto unions and (b) between persons legally separated and those legally divorced. If either of these circumstances necessitates a

23/ For a more detailed discussion of the investigation of age, see William Seltzer, Demographic Data Collection: A Summary of Experience (New York, the Population Council, 1973), pp. 8-18.

departure from the recommended classification of marital status, the composition of each category shown in the tabulations should be clearly stated.

2.102. If it is desired to have complete information on marital status, then this information should be collected and tabulated for persons of all ages, irrespective of the national minimum legal age, or the customary age, for marriage because the population may include persons who have been married in other countries with different minimum marriage ages; in most countries, also, there are likely to be persons who have been permitted to marry below the legal minimum age because of special circumstances. In order to permit international comparisons of data on marital status, however, any tabulations of marital status not cross-classified by detailed age should at least distinguish between persons under 15 years of age and those 15 years of age and over.

2.103. The collection of additional information related to customs in particular countries (such as concubinage, polygamous or polyandrous marital status, inherited widows, etc.) may be useful to meet national needs. For example, some countries may wish to collect data on the number of spouses of each married person. Modifications of the tabulations to take account of such information should be made within the framework of the basic classification in order to maintain international comparability in so far as possible.

2.104. The marital status categories described above do not provide complete information on the range of de facto unions of varying degrees of stability, which may be common in some countries; nor do they adequately describe the prevalence of formal marriage combined with relatively stable de facto union outside the marriage. Information on these relationships is very useful in studies of fertility but it is not possible to provide an international recommendation on this matter because of the different circumstances prevailing among countries. It is suggested, however, that countries that wish to investigate these relationships should consider the possibility of collecting separate data for each person on formal marital unions, on de facto unions and on the duration of each type of union (see para. 2.132).

(d) Citizenship

2.105. Citizenship is the legal nationality of each person. A citizen is a legal national of the country of the census; an alien is a non-national of the country. It should be noted that citizenship is not necessarily related to place of birth (see para. 2.30), which is a separate topic.

2.106. Data on citizenship should be collected so as to permit the classification of the population into (a) citizens, including all citizens by birth or naturalization whether by declaration, option, marriage or other means and (b) aliens. Information on the country of citizenship of aliens should be collected if aliens are believed to constitute a significant proportion of the total population.

2.107. Enumeration and processing instructions should indicate the disposition that should be made of stateless persons, persons with dual nationality, persons in process of naturalization and any other ambiguous citizenship groups. The treatment of these groups should be described in the census reports.

2.108. For countries where the population includes a significant proportion of naturalized citizens, additional information distinguishing citizens by birth and citizens by naturalization may be desirable. Additional questions on previous nationality or method of naturalization are useful if very detailed information on this subject is required.

2.109. The reliability of reported citizenship may be doubtful in the case of persons whose citizenship has recently changed as a result of territorial changes, or among the population of some newly independent countries where the concept of citizenship has only recently become important. As an aid to the analysis of the results, tabulations based on citizenship should be accompanied by notations indicative of the likelihood of these or similar causes of misstatement.

(e) Religion

2.110. For census purposes, religion may be defined as either (a) religious or spiritual belief or preference, regardless of whether or not this belief is represented by an organized group, or (b) affiliation with an organized group having specific religious or spiritual tenets. Each country that investigates religion in its census should use the definition most appropriate to its needs and should set forth, in the census publication, the definition that has been used.

2.111. The amount of detail collected on this topic is dependent upon the requirements of the country. It may, for example, be sufficient to inquire only about the religion of each person; on the other hand, respondents may be asked to specify, if relevant, the particular sect to which they adhere within a religion.

2.112. For the benefit of users of the data who may not be familiar with all of the religions or sects within the country, as well as for purposes of international comparability, the classifications of the data should show each sect as a subcategory of the religion of which it forms a part. A brief statement of the tenets of religions or sects that are not likely to be known beyond the country or region is also helpful.

(f) Language

2.113. There are three types of language data that can be collected in censuses, namely:

(a) Mother tongue, defined as the language usually spoken in the individual's home in his or her early childhood;

(b) Usual language, defined as the language currently spoken, or most often spoken, by the individual in his or her present home;

(c) Ability to speak one or more designated languages.

2.114. Each of these types of information serves a very different analytical purpose. Each country should decide which, if any, of these types of information is applicable to its own needs. International comparability of tabulations is not a major factor in determining the form of the data to be collected on this topic.

2.115. In compiling data on the usual language or on the mother tongue, it is desirable to show each language that is numerically important in the country and not merely the dominant language.

2.116. Information on language should be collected for all persons. In the tabulated results, the criterion for determining language for children not yet able to speak should be clearly indicated.

(g) National and/or ethnic group

2.117. The national and/or ethnic groups of the population about which information is needed in different countries are dependent upon national circumstances. Some of the bases on which ethnic groups are identified are: ethnic nationality (i.e., country or area of origin as distinct from citizenship or country of legal nationality), race, colour, language, religion, customs of dress or eating, tribe or various combinations of these characteristics. In addition, some of the terms used, such as "race", "origin" or "tribe", have a number of different connotations. The definitions and criteria applied by each country investigating ethnic characteristics of the population must, therefore, be determined by the groups that it desires to identify. By the nature of the subject, these groups will vary widely from country to country; thus, no internationally relevant criteria can be recommended.

2.118. Because of the interpretative difficulties that may occur, it is important that, where such an investigation is undertaken, the basic criteria used should be clearly explained in the census report so that the meaning of the classification will be readily apparent.

4. Fertility and mortality

2.119. The investigation of fertility and mortality in population censuses is particularly important in countries lacking a timely and reliable system of vital statistics because of the opportunity the data provide for estimating vital rates that would not otherwise be available. Some of the topics, however ("children born alive", "children living" and "age at marriage") are equally appropriate to all countries because they provide data that are not easily available, regardless of the quality of current registration.

2.120. Except for "maternal orphanhood", the population for which data should be collected for each of the topics included in this section consists of women 15 years of age and over or of particular subcategories of this group of women. In some countries, it may be appropriate to reduce the lower age limit by several years in the investigation of "live births within the 12 months preceding the census" and "deaths of infants born within the 12 months preceding the census" (see para. 2.142). It is strongly recommended that every effort be made to collect all information (with the exception of that on maternal orphanhood) directly from the women concerned because each woman is much more likely to recall the details of her experiences and the mortality of her offspring than is any other member of the household.

2.121. For the collection of reliable data, some of the topics may require a series of probing questions that are more suitable for use in sample surveys than in censuses because they are time-consuming. The topics are included here, however.

because the census may offer the only opportunity to investigate the phenomena or at least to investigate them on a regular basis. If any of the topics require questioning that would unduly extend the time required for enumeration, the data should be collected for only a sample of the women concerned. It is important that the sample be selected in such a way that all the information is collected from the same women or from a subsample of those women so that the data can be cross-classified in tabulations as appropriate and used together for analytical purposes. 24/

2.122. Tabulations based directly on responses to questions on these topics will often give a misleading picture of fertility and mortality levels and patterns because of the various types of errors to which reporting on the topics is subject. For this reason, it is frequently necessary to use one or more procedures for preparing derived fertility or mortality estimates from the data. The limitations of the data collected and of the estimates based on them should be made clear in the census reports. Because some of the estimation procedures are only suitable for use in certain circumstances and because some of the methodology is still at a developmental stage, it is important that census planners consult sources of detailed information on the methodology of collection and use of the data, including the limitations of the related estimation procedures. Several sources of information relevant to fertility and mortality data in general are cited here. 25/ Some of the same sources and other sources are indicated for individual topics.

2.123. In addition to the fertility-related topics included below, a further factor, sometimes useful for fertility estimation, that can be obtained in connexion with the information on "relationship to head or other reference member of the household" (see para. 2.70) or on "children living" (see paras. 2.128-2.130) is the identification of the natural mother of each child under 15 years of age when the natural mother appears on the same questionnaire as the child. It is used for estimating fertility by the "own children" method. 26/ In essence, information

24/ For the use of sampling in the enumeration, see chap. III.

25/ Laboratories for Population Statistics, A Basic Demographic Questionnaire: Data Collection and Analysis in Sample Surveys, Manual 7 (Chapel Hill, North Carolina, The University of North Carolina, 1978) (with summaries in French and Spanish); Manuals on Methods of Estimating Population, Manual IV, Methods of Estimating Basic Demographic Measures from Incomplete Data (United Nations publication, Sales No. 67.XIII.2); William Brass, Methods for Estimating Fertility and Mortality from Limited and Defective Data (Chapel Hill, North Carolina, International Program of Laboratories for Population Statistics, 1975); and Institut national d'études démographiques and others, Sources et analyse des données démographiques; application à l'Afrique d'expression française et à Madagascar, première partie, Sources des données, deuxième partie, Ajustement de données imparfaites (Paris, 1973).

26/ For methodological details, see Lee-Jay Cho, "The own-children approach to fertility estimation: an elaboration", International Population Conference, (International Union for the Scientific Study of Population, Liège, 1973), vol. II, pp. 263-279 (with a summary in French).

on the child's age and the mother's age are used to estimate a series of annual fertility rates for years prior to the census. The reliability of the estimates produced depends, among other things, on the proportion of mothers enumerated on the same questionnaire as their own children, the accuracy of age reporting for both mothers and their children and the accuracy of available estimates of mortality for women and children.

(a) Children born alive 27/

2.124. Information on number of children born alive (lifetime fertility) should include all children born alive (i.e., excluding foetal deaths) during the lifetime of the woman concerned up to the census date. The number recorded should comprise all live-born children, whether born in or out of marriage, whether born of the present or prior marriages or de facto unions and regardless of whether they are living or dead at the time of the census or where they may be living.

2.125. Data on the total number of live-born children should preferably be collected for all women 15 years of age and over, regardless of marital status. If it is not feasible to obtain the information for single women, it should be collected at least for all women 15 years of age and over who are or have been married (including consensually married). The group should therefore also include all widowed, divorced and separated women. In either case, the group of women for whom the data have been collected should be clearly described in the census report so as to avoid ambiguity in the analysis of the results.

2.126. For the most complete reporting, it is sometimes desirable to obtain the data in connexion with the collection of information on "children living" (see para. 2.128) and to derive the information on both topics by asking separately for (a) children born alive and living in the household, (b) children born alive and living elsewhere and (c) children born alive but now dead. If resources permit, the three questions are sometimes asked separately for children of each sex in order to improve the reliability of the data reported and their suitability for subsequent analysis. However, there is some variation among countries in the gains in quality achieved in such detailed investigation. In deciding on the degree of detail to be recorded, therefore, countries should be guided by their own prior census or survey experience, their current data priorities and the resources available for the census.

2.127. The identification of the natural mother of each child under 15 years of age in the same household, to be used in the "own-children" method of estimating fertility (see para. 2.123) may be assisted by asking each woman who reports one or more of her children as being born alive and living in the household to identify these children in the questionnaire.

27/ For methodological details on the uses of the data, see Manuals on Methods of Estimating Population, Manual IV, Methods of Estimating Basic Demographic Measures from Incomplete Data (United Nations publication, Sales No. E.67.XIII.2).

(b) Children living 28/

2.128. Information on number of children living should include all the children born to the woman concerned (whether they were born in or out of marriage or de facto unions or whether born of the present or prior marriages), who are still living at the census date, regardless of their age. The number recorded should comprise those children living with her and those living elsewhere, no matter where the latter may reside.

2.129. Data on the total number of living children should be collected for the same group of women for whom data on total number of live-born children are secured. Preferably, therefore, the group should consist of all women 15 years of age and over, regardless of marital status. If it is not feasible to obtain the information for single women, it should be collected at least for all women 15 years of age and over who are or have ever been married (including consensually married). The group should therefore also include all widowed, divorced and separated women.

2.130. If the information on live-born children is collected for only a sample of women, the data on children living should be obtained for the same sample. Possible methods for assuring the most complete reporting of the data are described in paragraph 2.126.

(c) Age at marriage

2.131. Age at marriage is the age of the woman, in completed years, at the time when the marriage took place. Where it is considered appropriate, de facto unions should be included among marriages.

2.132. In some countries, age at marriage per se is not always of interest in connexion with the study of fertility. For example, where contractual marriages take place at an early age, information on the age of the woman when the spouses actually began to live together is of more significance than age at marriage and should be substituted for the latter. Also, countries in which fertility is investigated in relation to union status 29/ rather than marital status should obtain the information in relation to union status rather than marital status.

28/ For methodological details on the uses of the data together with data on live-born children, see William Brass, op. cit.; Griffith Feeney, "Estimating infant mortality rates from child survivorship data by age of mother", Asian and Pacific Census Newsletter, vol. 3, No. 2 (November 1976), pp. 12-16; Jeremiah M. Sullivan, "Models for the estimation of the probability of dying between birth and exact ages of early childhood", Population Studies, vol. XXVI, No. 1 (March 1972), pp. 79-97; and T. James Trussell, "A re-estimation of the multiplying factors for the Brass technique for determining childhood survivorship rates", Population Studies, vol. XXIX, No. 1 (March 1975), pp. 97-108.

29/ "Union status", as investigated in the countries of the Caribbean Commonwealth, is a topic distinct from "marital status". It refers to the situation of women in respect of the man with whom they are or were living or having a relationship on a visiting basis. "Union status", therefore, is not the equivalent of de facto union although de facto unions are taken into account in the classification of women by union status.

2.133. Information on age at marriage can be secured either by asking directly for the age or by obtaining the date of marriage and calculating age at the processing stage. If "duration of marriage" (see para. 2.135) is also investigated, the direct question on age may be combined with a direct question on the duration of the marriage or on the age at marriage, and the duration of the marriage may be derived from a question on date of marriage combined with a question (if relevant) on date of the dissolution of the marriage.

2.134. For census purposes, the inquiry into age at marriage should relate only to women in their first marriage and to widowed, divorced and separated women who have had only one marriage. This is because the data are used for tabulations of women by age at marriage and/or duration of marriage cross-classified by the number of children born alive. Such tabulations for women who have had more than one marriage are impracticable in a census because of the number of additional questions that would have to be asked to determine the exact age at each marriage, the exact duration of each marriage and the number of children born alive in each marriage. It should be noted, however, that restriction of the investigation to women who have had only one marriage necessitates an additional question to be asked of all ever-married women, i.e. whether they have been married more than once. If information on children born alive is collected for only a sample of women, data on age at marriage should be obtained for the women within that sample who have had only one marriage.

(d) Duration of marriage

2.135. Duration of marriage is the interval between the date of marriage and the date of either the census or the dissolution of marriage prior to the census, expressed in completed years. Where it is considered appropriate, de facto unions should be included among marriages.

2.136. The circumstances related to contractual marriage and union status described in paragraph 2.132 should also be taken into account in the investigation of duration of marriage.

2.137. Information on duration of marriage can be secured either by asking directly for the number of years of married life or by obtaining the date of marriage and (if relevant) of the dissolution of marriage and calculating duration at the processing stage. If "age at marriage" is also investigated, the direct question on the duration of marriage may be combined with a direct question on age at marriage, or the age at marriage and the duration of marriage may be derived from a question on date of marriage combined with the question (if relevant) of the date of dissolution of the marriage.

2.138. For census purposes, the inquiry into duration of marriage should relate only to women in their first marriage and to widowed, divorced and separated women who have had only one marriage (see para. 2.134). If the inquiry into age at marriage is made for only a sample of women, the inquiry into duration of marriage should be addressed to the same sample.

(e) Live births within the 12 months preceding the census

2.139. "Live births within the 12 months preceding the census" (current fertility) refers to the total number of children born alive to the woman concerned during the 12 months immediately preceding the census.

2.140. Because of errors and omissions commonly encountered in the reporting of live births within a 12-month retrospective period, this topic by itself cannot generally be relied on to generate accurate estimates of current fertility. Improved estimates can, under certain circumstances, be made by using the topic in conjunction with one or more other topics. ^{30/} The topic, therefore, is more suitable for investigation in a sample survey than in a census but it may have to be introduced into the census if there are no opportunities for collection in a separate survey.

2.141. The information should be collected for all the marital-status categories of women for whom data on children born alive (see para. 2.125) are collected. If the data on total fertility are secured for only a sample of women, the information on current fertility should be collected for the same sample, with the exception of women above the reproductive ages. Even if total fertility is investigated for all women in the relevant marital-status categories, serious consideration should be given to restricting the investigation of current fertility to a sample of those women only.

2.142. In countries in which current births to mothers at ages below 15 years are statistically significant, the age limit for the investigation of current fertility may be lowered to include mothers at appropriate younger ages. If this procedure is followed, any subsequent analysis that uses both current and lifetime-fertility data must take account of the fact that the data on current fertility include a number of mothers and births not included in the lifetime-fertility data.

2.143. The information on births during the 12-month period may be collected either by asking directly for the total number of live births during the period or by asking for the month and year of birth of the last child born to the woman. There is some feeling that omissions of births reported are reduced by asking the date of birth of the last child born alive, because an answer must be given for every woman reported as having at least one live birth during her lifetime. It should be noted, however, that information on the date of birth of the last child born alive does not yield data on the total number of children born alive during the 12-month period; it shows only the number of women who had at least one live-born child during the period.

(f) Deaths of infants born within the 12 months preceding the census

2.144. "Deaths of infants born within the 12 months preceding the census" refers to the number of deaths that occurred among the live births within the 12 months preceding the census (see para. 2.139) reported for the woman concerned. Hence, the topic should be investigated only if live births within the period are also investigated.

2.145. The information needs to be collected only for women for whom at least one live birth during the reference period was reported.

^{30/} For a discussion of some of the problems of using the topic by itself to measure current fertility, see William Seltzer, op. cit., pp. 19-29. For methodological details on the uses of the data together with data on "children born alive", see Manuals on Methods of Estimating Population, Manual IV ... and William Brass, op. cit.

(g) Maternal orphanhood 31/

2.146. Maternal orphanhood is the determination of the survival at the time of the census of the natural mother of the person enumerated, regardless of whether or not the mother is enumerated in the same household. It therefore requires a direct question on whether or not the natural mother is living, to be put to all persons for whom neither the information on relationship to the head or other reference member of the household (see para. 2.72) nor the identification of the natural mother living in the same household (see para. 2.127) has demonstrated that the natural mother is still alive.

2.147. The estimation of adult female mortality based on the proportion of persons, by age, whose mothers are dead is still undergoing refinement to improve the reliability of the estimates. As pointed out by the Economic Commission for Africa, there are a number of difficulties to be overcome. In some cases, a person may not know who his or her natural mother is or was. If there is more than one surviving child, the answer given may overrepresent one mother unless the effort is made to determine, and secure information from, the oldest surviving child only. 32/

2.148. Some disagreement still exists in regard to the age-group of the population for which the topic should be investigated. At this time, therefore, each country should decide for itself whether the data should be collected for all persons up to at least 44 years of age, only for persons aged 15-44 years or only for children under 15 years of age.

5. Educational characteristics

2.149. The recommendations on "educational attainment" (see para. 2.151) and "educational qualifications" (see para. 2.172) make use of categories of the International Standard Classification of Education (ISCED) issued by the United Nations Educational, Scientific and Cultural Organization (UNESCO). 33/

2.150. As explained by UNESCO, it is not expected "that those countries now using a comprehensive national classification of education will replace it with ISCED for national compilations. On the contrary, the special requirements of countries for nationally based classifications are understood and the value of national classifications will be enhanced when, being designed to achieve comparability with ISCED, they can be used to provide internationally comparable data in addition to statistics reflecting particular national patterns of education. Many

31/ For methodological details on the uses of the data, see J. G. C. Blacker, "The estimates of adult mortality in Africa from data on orphanhood", Population Studies, vol. XXXI, No. 1 (March 1977), pp. 107-128; and Kenneth H. Hill and T. James Trussel, "Further developments in indirect mortality estimation", Population Studies, vol. XXXI, No. 2 (July 1977), pp. 313-334.

32/ "Study on methods and problems of the 1970 round of censuses" (E/CN.14/CAS.10/15), para. 207.

33/ UNESCO document COM/ST/ISCED (March 1976). (An abridged edition, with the same title, has been issued as UNESCO document ED/BIE/CONFINTED.35/REF.8, (July 1975)).

countries, however, have not yet developed comprehensive national classifications of education and they may choose to adopt ISCED as it stands or modified to suit national conditions." 34/

(a) Educational attainment

2.151. Educational attainment refers primarily to the highest grade completed within the most advanced level attended in the educational system of the country where the education was received but it should also take into account any adult education measurable in levels and grades, or their equivalent, even if it was provided outside of the regular school and university system. For international purposes, a "grade" is a stage of instruction usually covered in the course of a school year.

2.152. Information on educational attainment should preferably be collected for all persons at or beyond the usual age for entrance into the regular school system but some countries may find it advisable to restrict the investigation to persons 15 years of age and over because they do not consider the educational attainment of younger persons in their populations to be meaningful.

2.153. The information should allow the following levels of education to be identified, in accordance with ISCED:

(a) Education at the first level (ISCED category 1), which usually begins between ages 5 and 7 and lasts for about 5 years;

(b) Education at the second level, first stage (ISCED category 2), which begins at about age 10-12 and lasts for about 3 years;

(c) Education at the second level, second stage (ISCED category 3), which begins at about age 13-15 and lasts for about 4 years;

(d) Education at the third level (ISCED categories 5, 6 and 7), which begins at about age 17-19 and lasts for at least 3 or 4 years or longer, depending upon the stage (see para. 2.159).

Persons with no schooling should also be identified.

2.154. ISCED is essentially a dictionary of educational programmes. Each programme has a code number, a short title and a definition. Definitions are provided to assist users of the ISCED system in interpreting the titles, which are inevitably somewhat cryptic. The code number for each programme of study consists of five digits. The first digit indicates the level of the programme, the second and third digits indicate the field of study and the fourth and fifth digits distinguish specific programmes within each field.

2.155. Because ISCED embraces education both within and outside the regular school and university system, its descriptions of education at each level cannot be

34/ Ibid., para. 1.

summarized easily. The UNESCO publication (see para. 2.149), should therefore be consulted, particularly in regard to adult education at the first level and at the first stage of the second level.

2.156. In addition to the levels listed in paragraph 2.153, ISCED provides for broad separate indications and subdivisions within levels. The collection of the relevant additional information in a census may be unfeasible in many countries at this time. The categories are presented here for the assistance of countries that may be able to use them and as a guide to other countries in examining the possibilities of adjusting their national classification systems to provide compatibility with ISCED.

2.157. Within the first and second levels (ISCED categories 1-3), a separate indication is called for of special education for the blind, the deaf, the physically handicapped, the mentally handicapped, the socially maladjusted, those with reading/writing disabilities or those with speech difficulties.

2.158. The subdivisions of education at the second level (ISCED categories 2 and 3) are:

(a) General education, which stresses the theoretical, philosophic, scientific or mathematical aspects of the subjects covered, with little emphasis on technical subjects dealing with practical skills (ISCED codes 201 and 301);

(b) Teacher training (ISCED codes 214 and 314);

(c) Other education at the second level (ISCED codes 224, 234, 250, 252, 262, 266, 270, 278, 289, 318, 326, 334, 350, 352, 354, 362, 366, 370, 378 and 389).

2.159. The subdivisions of education at the third level (ISCED categories 5, 6 and 7) are:

(a) Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree (ISCED category 5);

(b) Education at the third level, first stage, of the type that leads to a first university degree or equivalent (ISCED category 6);

(c) Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent (ISCED category 7).

2.160. Because enumerators and respondents may have difficulty in grasping some of the ISCED terminology, census questions on educational attainment should, whenever possible, be put in such a way as to permit pre-coded responses.

2.161. Necessary deviations from the international definitions and classifications that result from particular characteristics of the national educational system should be explained in connexion with the tabulations. If for national purposes, it is necessary to publish the results entirely in terms of the designations used for the schools within a country, it is recommended that, in order to facilitate international comparison, the published data be accompanied by a general description of the educational system of the country.

2.162. Countries in which the educational system is undergoing important structural changes at the time of the census or has recently been changed may find it more suitable to collect information on the number of years of schooling completed, rather than on the level and grade of school completed, because the former information provides more comparable data for the entire population.

2.163. Some countries may prefer to inquire about grades attended rather than those completed for persons attending school at the time of the census. Conversion to completed grades should then be made at the processing stage.

(b) Literacy

2.164. Literacy is the ability both to read and to write. Data on literacy should be collected so as to distinguish between persons who are literate and those who are illiterate. A person is literate who can, with understanding, both read and write a short, simple statement on his or her everyday life. A person is illiterate who cannot, with understanding, both read and write a short, simple statement on his or her everyday life. ^{35/} Hence, a person capable of reading and writing only figures and his or her own name should be considered illiterate, as should a person who can read but not write and one who can read and write only a ritual phrase which has been memorized.

2.165. The language or languages in which a person can read and write is not a factor in determining literacy and need not ordinarily be considered in the questionnaire. In multilingual countries, however, this information may be essential for the determination of educational policy and would, therefore, be a useful additional subject of inquiry.

2.166. It is preferable that data on literacy be collected for all persons 10 years of age and over. ^{36/} In many developing countries, however, persons between 10 and 14 years of age may be about to become literate through regular schooling; the literacy rate for this age group may be misleading in an international comparison of total literacy. At the very least, therefore, data on literacy should be collected for all persons 15 years of age and over. Where countries collect the data for younger persons, the tabulations on literacy should at least distinguish between persons under 15 years of age and those 15 years of age and over in order to permit international comparison of the data.

2.167. Because of the possible reluctance of some illiterate persons to admit to their illiteracy and the difficulties of applying a test of literacy during a census investigation, the data collected may not be highly accurate. If it is considered likely that this deficiency is significant, the possibility should be stated in the census publications. A more specific indication of the reliability of the census results on literacy can be obtained by the use of a literacy test as part of a post-enumeration evaluation survey.

^{35/} United Nations Educational, Scientific and Cultural Organization, "Recommendations concerning the International Standardization of Educational Statistics", adopted by the General Conference at its tenth session, Paris, 3 December 1958, p. 4.

^{36/} Ibid.

(c) School attendance

2.168. School attendance is defined as attendance at any regular accredited educational institution, public or private, for systematic instruction at any level of education at the time of the census or, if the census is taken during the vacation period at the end of the school year, during the last school year. Instruction in particular skills, which is not part of the recognized educational structure of the country (e.g. in-service training courses in factories), is not considered "school attendance" for census purposes.

2.169. For cross-classification of data on school attendance with data on educational attainment (or on level and grade currently attended), the educational levels set forth in paragraph 2.153 can be supplemented by ISCED category 0, "education preceding the first level".

2.170. Information on school attendance should be collected for all persons between the usual age for entrance into the first level of school and 24 years of age inclusive. If it is considered likely that a significant number of older persons are attending school, the information may also be collected for persons over 24 years of age.

2.171. Some countries may also wish to investigate attendance at facilities providing adult education measurable in levels and grades but outside of the regular school and university system.

(d) Educational qualifications

2.172. Educational qualifications are the qualifications (i.e. degrees, diplomas, certificates etc.) that an individual has acquired, whether by full-time study, part-time study or private study; whether conferred in the home country or abroad; and whether conferred by educational authorities, special examining bodies or professional bodies. The acquisition of an educational qualification, therefore, implies the successful completion of a course of study.

2.173. Information on qualifications received should be collected primarily for persons having completed a course of study at the third level of education (ISCED levels 5, 6 or 7 (see para. 2.153)) regardless of the age of the person. Such information should include the title of the highest degree, diploma or certificate received, with an indication of the field of study if the title does not make this clear.

2.174. Because of the diversity in degrees and the like among different countries, it has so far not been possible to recommend a single classification of qualifications for world-wide use. If, however, an international classification is adopted by UNESCO, it should be used by each country investigating the topic.

2.175. In order to facilitate international comparison of the data, the national classification of fields of study should accord with the classification of broad subject fields at each stage of the third level of education (3-digit code) in ISCED. Use of the 3-digit ISCED code will provide not only the information on the field of study but also on the stage of the third level of education at the completion of which the degree, diploma or certificate was awarded. The broad subject fields and their ISCED codes are:

- General (601)
- Teacher training (514)
- Education science and teacher training (614, 714)
- Fine and applied arts (518, 618, 718)
- Humanities (522, 622, 722)
- Religion and theology (526, 626, 726)
- Social and behavioural sciences (530, 630, 730)
- Commercial and business administration (534)
- Business administration and related programmes (634, 734)
- Law and jurisprudence (538, 638, 738)
- Natural science (542, 642, 742)
- Mathematical and computer science (546, 646, 746)
- Medical diagnostic and treatment (550, 650)
- Medical science (750)
- Trade, craft and industrial (552)
- Engineering (654, 754)
- Architecture and town planning (558, 658, 758)
- Agriculture, forestry and fishing (562, 662, 762)
- Home economics (domestic science) (566, 666, 766)
- Transport and communications (570)
- Service trades (578)
- Mass communication and documentation (584, 684, 784)
- Other fields (589, 689, 789)

2.176. The programmes constituting each of the levels listed in paragraph 2.175 can be found in the classification of "levels, fields and programmes" in ISCED.

2.177. In connexion with the tabulation of the data, each country should explain the significance of qualifications which might not be readily apparent to the users of the data and should also explain the treatment of persons qualified at the same rank in more than one field.

2.178. Some countries may wish, in addition, to investigate qualifications of persons having completed the second stage of the second level of education (ISCED level 3). The broad subject fields and their ISCED codes are:

- General (301)
- Teacher training (314)
- Fine and applied arts (318)
- Religion and theology (326)

Commercial and business (334)
Health-related auxiliary (350)
Trade, craft and industrial (352)
Engineering (354)
Agriculture, forestry and fishing (362)
Home economics (domestic science) (366)
Transport and communications (370)
Service trades (378)
Other fields (389)

2.179. It should be noted, however, that the results of the investigation of qualifications at the completion of the second level may be difficult to interpret because they will include data for a certain proportion of younger persons who have not completed their formal education. The results would, therefore, have to be analysed in conjunction with whatever national figures are available on the proportion of graduates of the second level likely to go on to the third level.

6. Economic characteristics

2.180. For the most part, the topics relating to economic characteristics of the population referred to below concentrate on the economically active population, as defined in paragraph 2.191, but they also include some information on persons who are not economically active and on the total income of households.

2.181. With the exception of data on income and a few other exceptions that are pointed out in the discussion of the individual topics, the time-reference period for census data on economic characteristics should be the same for all of the topics. The adoption of a specific time reference for census data on economic characteristics is fundamental to the concept of the economically active population. There is, however, no consensus on whether the time-reference period should be a brief one (not longer than one week immediately preceding the census) or longer (ranging from the month immediately preceding the census to as much as the 12-month period immediately preceding the census, or the calendar year preceding the census). The use of both a brief and a longer period, for different purposes, is also a possibility.

2.182. The period of not more than one week yields precise information on current activity that is particularly useful as an input to a system of integrated data on employment, unemployment and other labour-force connected information obtained on a current basis apart from the census. Current economic characteristics are also simpler to investigate than "usual" characteristics because the brief time-reference period avoids many of the complications that can occur when the long period is used.

2.183. The brief period may not, however, be appropriate for situations where the predominant employment is of a seasonal nature and persons are likely to engage in more than one occupation during the course of a year or to be unemployed at particular times of the year. This situation may occur in predominantly agricultural economies but may also be found in industrial economies.

2.184. The particular advantage of a longer reference period is that it can provide information on the economic activity of most consequence to each individual over the longer period and also the opportunity of collecting information not relevant to a brief time-reference period, for example on an occupation that is followed at a different time of year from the occupation reported for the one-week period. The longer reference period is needed, for instance, when asking if persons reporting a non-agricultural activity during the shorter period did some work in connexion with agriculture during the longer period (see chap. I). It is also useful in determining the intensity of activity over a longer period (see para. 2.211) and in the investigation of household income (see para. 2.212).

2.185. One of the greatest drawbacks of the "usual" activity approach is the difficulty of determining activity status, occupation and industry over a period of as long as an entire year. Since economic activity always takes precedence over non-economic activity (see para. 2.195), problems arise with the classification of the activity status of persons who are economically active for only part of the year, particularly if it is for a brief part of the year, with consequent difficulties in determining the size of the labour force over the entire time-reference period. A similar situation arises in determining the number of unemployed persons over the entire time-reference period and the principal "usual" occupation and/or industry of persons who engage in more than one occupation or work in different industries during the reference period. Although all of these problems also arise in connexion with the brief time-reference period, the proportion of persons involved and the possible complications are likely to be much greater with the use of the longer reference period; hence it is also more difficult to set precise criteria for enumerators to follow.

2.186. In view of the advantages and disadvantages of both the "current" and the "usual" activity approach, countries will have to decide for themselves which approach is more appropriate to their needs or whether both concepts should be used if feasible. In arriving at a decision, each country should take into account the relevant regional recommendations. Regardless of which approach is used, a specific time-reference period (either one week or longer, as appropriate) should be established and clearly stated in the instructions and in connexion with the relevant tabulations.

2.187. The minimum age-limit adopted for the census questions on economic activity should be set in accordance with the conditions in each country, but never higher than 15 years. Countries that have a large proportion of their labour force engaged in agriculture, a type of activity in which, normally, many children participate, will need to select a lower minimum age than will highly industrialized countries, where employment of young children is rare. In order to permit international comparisons of data on the economically active population, however, any tabulations of economic characteristics not cross-classified by detailed age should at least distinguish between persons under 15 years of age and those 15 years of age and over.

(a) Activity status

2.188. Activity status is the relationship of each person to economic activity during a specified period of time. Information should be collected for each person at or above the minimum age for which economic characteristics are to be tabulated on whether or not the person is economically active.

2.189. Particular attention should be given to groups that may be especially difficult to classify. Among these are persons seeking work for the first time and persons receiving pensions consequent upon retirement from one job who are, at the same time, working at another job. The first group should be separately identified in the relevant tabulations. The second group should be classified as economically active in accordance with the principle that participation in an economic activity takes precedence over any non-economic activity (see para. 2.195).

2.190. Even more serious than these problems is the difficulty often faced in identifying economically active women. The stereotype that women are usually confined to home-making duties can result in a serious loss of data on women's economic activity in many countries where such activity is becoming increasingly significant. Unless enumerators are explicitly instructed to ask about the possible economic activity of the women in the household exactly as they do for men, they may tend automatically to enter women as home-makers, particularly if the women are married, without asking whether they participate in any other activity. This tendency seems to be most pronounced in rural areas where most men are engaged in agriculture and the contribution of their wives and daughters as unpaid family workers in agriculture is easily overlooked, but it can also occur in urban areas where modern labour-force conditions are changing the traditional economic role of women. Great care should be taken, therefore, to impress upon enumerators the importance of investigating the economic activity of women.

(i) Economically active population

2.191. The economically active population comprises all persons of either sex who furnish the supply of labour for the production of economic goods and services during the time-reference period chosen for the investigation. It includes both persons in the civilian labour force and those serving in the armed forces. In compilations of the data, a separate category of "members of the armed forces" may be maintained so that the category can be deducted from the total labour force whenever desirable. The civilian labour force comprises both persons employed and those unemployed during the time-reference period. These two groups should be distinguished in accordance with the following criteria:

2.192. Employed. The employed comprise all persons, including unpaid family workers, who worked during the time-reference period established for data on economic characteristics or who had a job in which they had already worked but from which they were temporarily absent because of illness or injury, industrial dispute, vacation or other leave of absence, absence without leave or disorganization of work for reasons such as bad weather or mechanical breakdown. 37/

2.193. Unemployed. The unemployed consist of all persons who, during the reference period, were not working but who were seeking work for pay or profit, including those who never worked before. Also included are persons who, during the reference period, were not seeking work because of temporary illness, because they had made arrangements to start a new job subsequent to the reference period

37/ See The International Standardisation of Labour Statistics (Geneva, International Labour Office, 1959), pp. 44-45.

or because they were on temporary or indefinite lay-off without pay. 38/ Where employment opportunities are very limited, the unemployed should also include persons who were not working and were available for work, but were not actively seeking it because they believed that no jobs were open. The recorded data on the unemployed should distinguish persons who had never worked before, i.e. those seeking work for the first time. Particular care should be taken not to overlook women seeking work for the first time.

2.194. Each country should make its own determination of the minimum requirement for the amount of time worked during the reference period to determine whether persons (except unpaid family workers, for which see para. 2.206) are to be classified as employed or as unemployed.

2.195. In classifying the population by activity status, participation in an economic activity should always take precedence over participation in a non-economic activity; hence employed and unemployed persons should be excluded from the not economically active population, even though they may also be, for example, students or home-makers.

(ii) Not economically active population

2.196. The not economically active population comprises the following functional categories:

Home-makers: persons of either sex, not economically active, who are engaged in household duties in their own home; for example, housewives and other relatives responsible for the care of the home and children. (Domestic employees working for pay, however, are classified as economically active);

Students: persons of either sex, not economically active, who attend any regular educational institution, public or private, for systematic instruction at any level of education;

Income recipients: persons of either sex, not economically active, who receive income from property or other investment royalties or pensions from former activities;

Others: persons of either sex, not economically active, who are receiving public aid or private support, and all other persons not falling into any of the above categories, such as children not attending school.

2.197. Since some individuals may be classifiable in more than one category of the not economically active population (e.g. a person may be a student and a home-maker at the same time), the enumeration instructions should indicate the order of preference for recording persons in one or another of the categories. Consideration might also be given to presenting the categories on the census questionnaire in the preferred order because persons tend to answer with the first category that applies to them.

38/ Ibid.

(b) Occupation

2.198. Occupation refers to the kind of work done during the time-reference period established for data on economic characteristics by the person employed (or the kind of work done previously, if unemployed), irrespective of the industry or the status in employment in which the person should be classified.

2.199. For purposes of international comparisons, it is recommended that countries compile their data in accordance with the latest revision available at the time of the census of the International Standard Classification of Occupations (ISCO) issued by the International Labour Office. At the time the present recommendations were prepared, the latest revision of ISCO was in 1968. ^{39/} If it is not possible to compile the data exactly in accordance with ISCO, provision should be made for the categories of the classification employed to be convertible to ISCO, or at least to its minor (two-digit) groups. If the national data are not classified in accordance with ISCO, an explanation of the differences should be given in the census publications.

2.200. For persons reporting more than one occupation during the time-reference period, criteria will have to be established for determining which is the main occupation. The decision can, for example, be based on the occupation on which most time was spent during the period or it can be based on the most remunerative occupation during the period. In some cases, however, respondents may insist on one of their occupations being considered as the main one on the basis of their own subjective criteria. To avoid this possibility, it may be advisable not to ask directly for the main occupation but to inquire instead about the amount of time spent on each occupation or which one was most remunerative.

2.201. If it is thought that many persons in a country have more than one occupation during the time-reference period, information on the secondary occupation may also be collected.

(c) Industry

2.202. Industry refers to the activity of the establishment in which an economically active person worked during the time-reference period established for data on economic characteristics or last worked, if unemployed.

2.203. For purposes of international comparability, it is recommended that countries compile their data in accordance with the most recent revision of the International Standard Industrial Classification of All Economic Activities (ISIC) available at the time of the census. At the time the present recommendations were prepared, the latest revision of ISIC was in 1968. ^{40/} If it is not possible to

^{39/} International Labour Office, International Standard Classification of Occupations, Revised Edition 1968 (Geneva, 1969).

^{40/} International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No. 4/Rev.2 (United Nations publication, Sales No. E.68.XVII.8) and Indexes to the International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No. 4/Rev.2/Add.1 (United Nations publication, Sales No. E.71.XVII.8).

compile the data exactly in accordance with ISIC, provision should be made for the categories of the classification employed to be convertible to ISIC or at least to its major (three-digit) groups. If the national data are not classified in accordance with ISIC, an explanation of the differences should be given in the census publications.

2.204. For persons reporting more than one industry during the time-reference period, the industry in which the person's main occupation was performed should be considered to be the main industry. If, however, the main occupation was performed in more than one industry, criteria for determining which is the main industry will have to be established in the same way as for determining the main occupation (see para. 2.200).

2.205. If data on secondary occupation are collected (see para. 2.201), information on industry in regard to the secondary occupation may also be collected.

(d) Status in employment

2.206. Status in employment refers to the status of an economically active individual (see para. 2.191) with respect to his or her employment, that is, whether he or she is (or was, if unemployed) an employer, own-account worker, employee, unpaid family worker or a member of a producers' co-operative, as defined below.

(a) Employer: a person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires one or more employees. Some countries may wish to distinguish among employers according to the number of persons they employ.

(b) Own-account worker: a person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires no employees.

(c) Employee: a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips, piece-rates or pay in kind.

(d) Unpaid family worker: usually a person who works a specified minimum amount of time (at least one third of the normal working hours), without pay, in an economic enterprise operated by a related person living in the same household. Where it is customary for young persons, in particular, to work without pay in an economic enterprise operated by a related person who does not live in the same household, the requirement of "living in the same household" may be eliminated. If there are a significant number of unpaid family workers in enterprises of which the operators are members of a producers' co-operative who are classified in category (e), these unpaid family workers should be classified in a separate subgroup.

(e) Member of producers' co-operative: a person who is an active member of a producers' co-operative, regardless of the industry in which it is established. Where this group is not numerically important, it may be excluded from the classification and members of producers' co-operatives should be classified under other headings, as appropriate.

(f) Persons not classifiable by status: experienced workers whose status is unknown or inadequately described and unemployed persons not previously employed.

2.207. A category of "unpaid apprentices" may be needed in some countries. This category should not, however, include apprentices who receive pay in kind, or meals and sleeping quarters, who should be classified as "employees".

2.208. If data on secondary occupation are collected (see para. 2.201), information on status in employment in regard to the secondary occupation may also be collected.

(e) Time worked

2.209. Time worked is the total time worked by persons reported as employed during the time-reference period used in the investigation of economic characteristics. If the reference period is the week preceding the census, time worked should be reported in hours. If the reference period is up to the 12 months preceding the census, time worked should be reported in days or months, as appropriate. Even where a one-week reference period is used in the investigation of economic characteristics, a supplementary question on time worked during the longer period can be useful.

2.210. If the reference period is one week, the amount of time worked should be related to each occupation reported for the person concerned. If, therefore, secondary occupation is investigated, time worked at the principal occupation and time worked at a secondary occupation should be indicated separately.

2.211. If a longer reference period is used, it may not be possible to relate time worked to a particular occupation for persons who have had several occupations over the period. The longer period is useful, however, for determining intensity of activity in general.

(f) Income

2.212. For census purposes, income should be defined as (a) monthly income in cash from the occupation of economically active persons and (b) the total annual cash income of households regardless of source. Some countries may consider a wider definition of income to include non-cash income as well. The use of non-cash income in the census in some concept will, however, present many practical problems of implementation in a population census, including the burden of work, response errors and in general, the quality of information collected. The wider definition is generally found to be more suitable for use in a sample survey.

2.213. As thus defined, the information collected can provide an input into statistics on the distribution of income, consumption and accumulation of households ^{41/} in addition to the immediate census purposes it serves.

^{41/} See Provisional Guidelines on Statistics of the Distribution of Income Consumption and Accumulation of Households (United Nations publication, Sales No. E.77.XVII.11).

2.214. The occupational income of employed persons should include wages and salaries of employees, income of members from producers' co-operatives, and entrepreneurial income of employers and own-account workers operating unincorporated enterprises.

2.215. In addition to the occupational income of its economically active members, the total cash income of the household should include, for example, interest, dividends, rent, social security benefits, pensions and life insurance annuity benefits of all its members. The concepts involved in determining cash income are not simple to grasp and respondents may be unable or unwilling to provide exact information. For example, occupational income should include social security, pension fund contributions and direct taxes withheld from employees' salaries but some persons will undoubtedly not include these amounts in reporting their salaries. Significant items of total household income may also be excluded or misstated. Despite any instructions given to enumerators, therefore, the data collected can be expected to be approximate at best. As an aid to the interpretation of the results, tabulations of the data should be accompanied by a description of the items of income assumed to be included and, if possible, an estimate of the accuracy of the figures.

(g) Sector of employment

2.216. Sector of employment refers to the sector of the economy in which an economically active person works. For census purposes, the basic distinction to be made should be between the public sector and the private sector. Because there is not yet any interregional consensus on the subcategories of sectors to be identified, countries should consult the appropriate regional recommendations for further guidance.

2.217. In the absence of regional standards on the topic, countries may wish to take account of some of the sectors and subsectors defined in table 5.1 of A System of National Accounts.^{42/} Depending upon the structure of the national economy, some countries may wish to subdivide the public sector into, for example, (a) general government and (b) publically owned and controlled enterprises. The private sector may, for example, be subdivided into (a) privately owned and/or controlled enterprises and (b) household and unincorporated enterprises. Co-operative enterprises may be separately identified.

2.218. If the distinction to be made is simply between employment in the public sector and employment in the private sector, the information need be collected usually for persons classified as "employees" in the classification by "status in employment" (see para. 2.206), because the sector of employment for persons in any of the other status categories must of necessity be the private one. For the investigation of employment in the subcategories given as examples in paragraph 2.217, or for particular categories recommended by any region, it may be necessary to obtain the information for persons classified in one or more of the other categories of "status in employment".

^{42/} United Nations publication, Sales No. E.69.XVII.3.

2.219. The extent to which most persons in a country are likely to be able to supply accurate information, particularly when detailed subsectors are involved, should be taken into account in planning any investigation of the topic in the census. Suitable testing prior to the census would be appropriate to determine whether or not the topic should be investigated. If the topic is included in the census, further investigation in a post-enumeration evaluation study would be helpful in determining the reliability of the results.

VI. TABULATIONS TO BE PREPARED IN POPULATION CENSUSES

A. Scope and objective of tabulations

2.220. The census tabulations set forth in the present chapter are intended to provide, in published form, the most important census information needed as a basis for programmes of economic and social development and to be used for research purposes. They do not in any way represent all of the tabulations that any given country may publish and certainly not all of the tabulations that may eventually be prepared for special purposes. The tabulations do not take into account the form in which information may be entered into a data base, which may be more detailed than that required for the census tabulations.

2.221. It is anticipated that most countries will publish more tabulations than are included here. With the almost universal use of modern computer equipment for the processing of census data, the time required for processing has been greatly reduced in comparison with older forms of processing and the processing cost of each tabulation and the relative cost of processing additional tabulations represent a much smaller fraction of the total census cost than in the past. As a result, collection restrictions, in terms of cost and of accuracy of the data that can be collected, and publication time and costs have a greater relative weight in determining the number and complexity of the tabulations that can be produced and published.

2.222. The census tabulations outlined in this section employ the topics set forth in paragraph 2.17, that is, the topics included in the majority of regional recommendations as either "priority" or "other useful" (see paras. 2.15 and 2.16). They also reflect, as far as possible, the relevant tabulations included in the various regional recommendations. As would be expected, however, there is less consensus among the regions on tabulations than on topics. Hence, the tabulations in the present chapter are basic tabulations intended to offer guidance to countries in preparing their own tabulation programmes. To this end, each country should take into account not only the appropriate regional recommendations and its national needs but also the possibility of collecting reliable data on the topics involved.

2.223. Countries' needs and resources will also affect the degree of detail that they will wish to show in the classifications used in their tabulations. Alternative classifications of differing degrees of detail have therefore been indicated for some of the tabulations. The less detailed classification is identified as "basic" and the more detailed as "optional". In all of the tabulations, subtotals have been indicated wherever possible. The subtotals can also be used as minimum categories.

2.224. When sampling has been used in the census, attribute and geographical classifications used in the tabulations must be particularly carefully considered because detailed cross-classifications for small geographical areas may not always be significant and can, in fact, be misleading.

2.225. Of the 56 tabulations included, 17 are identified "for early release". These are the tabulations for which the need is usually most urgent. It should be noted, however, that the sequence in which the tabulations are produced depends also

on the over-all system of data processing that is employed and the way in which each tabulation fits into the system. It may not be economical under all circumstances to produce some of the tabulations marked "for early release" before others not so indicated. These considerations will require co-ordination with systems analysts responsible for planning the production of the tabulations.

2.226. Accompanying each tabulation is a statement of the principal uses of the data supplied by it and an illustrative sketch outline of the tabulation, showing one way of providing for the required attribute classifications. Where alternative classifications have been indicated for any topic included in the tabulation, the basic classification (see para. 2.223) has been shown in the sketch. The sketches are illustrations only; they are not intended as models of completed tables. The purpose here is to present a view of the subject-matter elements desired as end-products. In the national presentation of results, various elements may be combined as parts of a single table, according to the needs of each country, so long as the indicated categories and cross-classifications are made available.

2.227. The specifications for each tabulation include, inter alia, a geographical classification. This is intended to be a guide to the types of civil division of each country for which the information provided by the tabulation is generally needed. The full classification is (a) total country, (b) each major civil division, (c) each minor civil division, (d) each principal locality. An appropriate urban and rural distinction for (a), (b) and (c) is also indicated (see paras. 2.54-2.61). However, in order to avoid producing tabulations which are overly voluminous or which contain a large number of empty cells, some countries may find it necessary to employ a more restricted geographic classification than that suggested in the illustrations.

2.228. Countries will undoubtedly wish to prepare at least some of the tabulations for additional areas, such as smaller civil divisions than are indicated, or other areas of economic or social significance. Another type of area for which tabulation is useful is the small subdivisions of principal localities known as "census tracts" (in English), which some countries have delineated for purposes of analysis of the census results. Data for very small areas, such as blocks, or even block faces, may be stored in the data base although not published in the regular census volumes. The areas for which it is feasible to show information will be affected by whether sampling was used either in the collection of the information or in the tabulation stage.

2.229. Tabulations for the subnational areas specified may be prepared on the basis of the resident population of each area or on the basis of the population present in each area at the time of the census. Tabulations relating to the resident population are generally more useful, since they are appropriate to the apportionment of representation in legislative bodies, the measurement of internal migration, the computation of measures of fertility and mortality by place of residence and the planning and administration of such services as schools and housing, which have relevance only to the resident population. Tabulations on the basis of the population present in the area at the time of the census are useful where this population is considerably larger than the resident population, thus raising the demand for products and services above the level that would be required by the resident population alone.

B. List of tabulations

2.230. In the following list of tabulations by title and in the detailed specifications and the illustrations presented in section C below, the tabulations are grouped under six headings analogous to those used in the presentation of topics in chapter V. The groupings are not mutually exclusive, because each tabulation contains one or more cross-classifications. In all cases, the grouping has been done on the basis of what is considered to be the "principal" topic included in the tabulation. Closely related tabulations appearing under other headings are indicated in the short text introducing each group in section C.

<u>Tabulation</u> <u>number</u>	<u>Title</u>
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(An asterisk preceding the number of the tabulation indicates that it is a tabulation for early release, as explained in paragraph 2.225)

Group I. Tabulations dealing with geographical and migration characteristics

- *P1. Total population and population of major and minor civil divisions, by urban/rural distribution and sex
- *P2. Population in localities by size-class of locality and sex
- *P3. Population of principal localities and of their urban agglomerations, by sex
- P4. Native and foreign-born population by age and sex
- P5. Native population by major civil division of birth, age and sex
- P6. Foreign-born population by country of birth, age and sex
- P7. Population by duration of residence in locality and major civil division, age and sex
- *P8. Population ... years of age and over by place of usual residence, place of residence at a specified date in the past, age and sex
- P9. Population by place of usual residence, duration of residence, place of previous residence and sex

Group II. Tabulations dealing with household characteristics

- *P10. Population in households by relationship to head or other reference member of household, marital status and sex, and number of institutional population
- P11. Heads or other reference members of households by age and sex, and other household members by age and relationship to head or other reference member
- P12. Heads or other reference members of households ... years of age and over by activity status, status in employment and sex, and other household members ... years of age and over by relationship to head or other reference member and activity status
- *P13. Households, population in households and number of family nuclei, by size of household
- *P14. Households and population in households by size and type of household

- P15. Multiperson households and population in such households, by type and size of household
- P16. Multiperson households with one or more family nuclei and population in such households, by type of household and family nucleus and by size of household
- P17. Households and population in households by size of household and number of economically active members
- P18. Households and population in households by size of household and number of members under ... years of age

Group III. Tabulations dealing with demographic and social characteristics

- *P19. Population by single years of age and sex
- *P20. Population by marital status, age and sex
- P21. Population by country of citizenship, age and sex
- P22. Population by religion, age and sex
- P23. Population by language (mother tongue, usual language or ability to speak one or more languages), age and sex
- P24. Population by national and/or ethnic group, age and sex

Group IV. Tabulations dealing with fertility and mortality

- *P25. Female population 15 years of age and over by age and number of children born alive
- *P26. Female population 15 years of age and over by age and number of children living
- P27. Mothers 15 years of age and over with at least one child under 15 years of age living in the same household, by age of mother and by age of children
- P28. Female population 15 years of age and over by age, number of children born alive and educational attainment
- P29. Female population 15 years of age and over, in their first marriage or married only once, by age at marriage, duration of marriage and number of children born alive
- P30. Female population ... to 49 years of age by age, number of live births within the 12 months preceding the census, and deaths among these live births
- P31. Population by maternal orphanhood and age

Group V. Tabulations dealing with educational characteristics

- *P32. Population ... years of age and over not attending school, by educational attainment, age and sex
- P33. Population ... to 24 years of age attending school, by educational attainment, age and sex
- P34. Population 10 years of age and over by literacy, age and sex

- *P35. Population ... to 24 years of age by school attendance, single years of age and sex
- P36. Population that has successfully completed a course of study at the third level of education, by educational qualifications, age and sex

Group VI. Tabulations dealing with economic characteristics

- *P37. Population ... years of age and over by activity status, marital status, age and sex
- *P38. Economically active population by occupation, age and sex
- *P39. Economically active population by industry, age and sex
- *P40. Economically active population by status in employment, age and sex
- P41. Economically active population by status in employment, industry and sex
- P42. Economically active population by status in employment, occupation and sex
- P43. Economically active population by industry, occupation and sex
- P44. Economically active population by occupation, educational attainment, age and sex
- P45. Economically active population by industry, educational attainment, age and sex
- P46. Economically active population by occupation, place of usual residence, duration of residence, age and sex
- P47. Economically active population by educational attainment, place of usual residence, duration of residence, age and sex
- P48. Economically active female population by occupation, marital status and age
- P49. Economically active female population by status in employment, marital status and age
- P50. Population not economically active by functional categories, age and sex
- P51. Employed population by hours worked during the week, age and sex
- P52. Economically active population by months worked during the year, age and sex
- P53. Employed population or total economically active population by time worked, occupation and sex
- P54. Employed population or total economically active population by time worked, industry and sex
- P55. Economically active population by monthly income, occupation and sex
- P56. Households and population in households by annual income and size of household

C. Specifications for each tabulation

2.231. Each of the tabulations listed above is described in this section. The population to be included, the geographical classification and the attribute classifications are specified in each case. The paragraph reference numbers following each attribute classification correspond to the paragraphs in chapter V, where the respective topics are discussed. Under "Use of the tabulation", the

principal uses of the data supplied by the tabulation are set forth. This is followed by an illustrative sketch outline of the tabulation.

Group I. Tabulations dealing with geographical and migration characteristics

2.232. The tabulations in this group deal with the nine geographical and migration topics: "total population", "locality", "urban and rural", "place of usual residence", "place where present at time of census", "place of birth", "duration of residence", "place of previous residence" and "place of residence at a specified date in the past". The group contains nine tabulations (P1-P9), of which four are for early release. It should be noted, however, that tabulation P9, although not included among the four, is for alternative early release in the event that tabulation P8 is not prepared.

2.233. Tabulations P1-P3 present the fundamental geographical distributions of the population. In tabulations P4-P9, dealing with migration characteristics, the geographical factor is essential for measuring the phenomenon.

2.234. A geographical classification is also included in all of the tabulations in groups II-IV (see para. 2.227). "Place of usual residence" and "duration of residence" appear also in tabulations P46 and P47 (group VI), where they are cross-classified by the occupation and the educational attainment, respectively, of the economically active population.

2.235. For more detailed descriptions of the uses of the data in the tabulations dealing with geographic and migration characteristics than those given in connexion with each tabulation, see the following publications: General Principles for National Programmes of Population Projections as Aids to Development Planning; 43/ Manuals on Methods of Estimating Population, Manual I, Methods of Estimating Total Population for Current Dates, 44/ and Manual VI, Methods of Measuring Internal Migration; 45/ and National Programmes of Analysis of Population Census Data as an Aid to Planning and Policy-Making. 46/

P1. Total population and population of major and minor civil divisions, by urban/rural distribution and sex
(for early release)

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division. Distinguish between urban and rural for (i), (ii) and (iii) (see paras. 2.54-2.61).

(b) Sex (para. 2.87): male; female

43/ United Nations publication, Sales No. 65.XIII.2.

44/ United Nations publication, Sales No. 1952.XIII.5.

45/ United Nations publication, Sales No. E.70.XIII.3.

46/ United Nations publication, Sales No. 64.XIII.4.

Use of the tabulation

The determination, by means of the census, of the total population and its distribution among major and minor territorial divisions is frequently a legal requirement, because the results are used to determine the apportionment of representation in legislative bodies and for many administrative purposes.

The data are also needed for studies of the internal distribution of population in relation to economic and social facilities and to studies of internal migration and other factors affecting the trends of population distribution. The results of such studies are relevant to policy with regard to the location of economic development projects and to the balance of economic and social development among different parts of the country. They also provide the base data for projections of the future regional and urban/rural distribution of the population, which may indicate the need for policy measures relevant to population redistribution.

In addition, the information is required for the computation of vital statistics rates on the subnational level and the study of urban/rural differentials in such rates. The results of such studies, together with studies of morbidity, are useful for implementing policy regarding the location of health facilities. The vital statistics rates are also used in projections of the future population of civil divisions.

Illustration Pl. Total population and population of major and minor civil divisions, by urban/rural distribution and sex (for early release)

Geographical division and urban/rural distribution	Both sexes	Sex	
		Male	Female
TOTAL			
Urban			
Rural			
Major civil division A <u>a</u> /			
Urban			
Rural			
Minor civil division a ₁ <u>a</u> /			
Urban			
Rural			
Minor civil division a ₂ <u>a</u> /			
Urban			
Rural			
(etc.)			
Major civil division B <u>a</u> /			
Urban			
Rural			
Minor civil division b ₁ <u>a</u> /			
Urban			
Rural			
Minor civil division b ₂ <u>a</u> /			
Urban			
Rural			
(etc.)			
.			
.			
.			

Illustration P1 (continued)

Geographical division and urban/rural distribution	Both sexes	Sex	
		Male	Female
Major civil division Z <u>a/</u>			
Urban			
Rural			
Minor civil division z ₁ <u>a/</u> . . .			
Urban			
Rural			
Minor civil division z ₂ <u>a/</u> . . .			
Urban			
Rural			
(etc.)			

a/ Name of major or minor division.

P2. Population in localities by size-class of locality and sex (for early release)

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division

(b) Size-class of locality (paras. 2.51-2.53): 500,000 or more inhabitants;
100,000-499,999 inhabitants; 50,000-99,999 inhabitants; 20,000-49,999 inhabitants;
10,000-19,999 inhabitants; 5,000-9,999 inhabitants; 2,000-4,999 inhabitants;
1,000-1,999 inhabitants; 500-999 inhabitants; 200-499 inhabitants; less than
200 inhabitants; and, separately, the number of localities of each size-class

(c) Population not in localities (paras. 2.51-2.53): total number

(d) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation provides information on national patterns of concentration or dispersion of population, which will afford a reasonable degree of international comparability, provided that the unit of classification is the locality as defined in paragraph 2.51. Using data from successive censuses, it is possible to assess the rate of change, over given periods, in the numbers of localities in each size-class and the proportion of the population

in each size-class of locality. Projections of future patterns of population concentration, on the basis of past trends, are needed for determining policy in regard to the distribution of population.

In those countries where the distinction between urban and rural population can be based on size of locality these data provide the basis for the urban/rural classification and also for the calculation of rates of urbanization.

The recommended classification of localities by size-class provides breaks in the size-class categories at 2,000, 10,000 and 20,000 inhabitants, which are used by some countries in distinguishing between urban and rural localities.

Illustration P2. Population in localities by size-class of locality and sex (for early release)

Geographical division <u>a/</u> and size-class of locality	Number of localities	Both sexes	Sex	
			Male	Female
TOTAL				
All localities				
500,000 or more inhabitants .				
100,000-499,999 inhabitants .				
50,000-99,999 inhabitants . .				
20,000-49,999 inhabitants . .				
10,000-19,999 inhabitants . .				
5,000-9,999 inhabitants . . .				
2,000-4,999 inhabitants . . .				
1,000-1,999 inhabitants . . .				
500-999 inhabitants				
200-499 inhabitants				
Less than 200 inhabitants . .				
Population not in localities . .				

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division (see paras. 2.227-2.228).

P3. Population of principal localities and of their urban agglomerations, by sex
(for early release)

Population included: population of localities above a specified size and of the urban agglomeration of each such locality

Classifications:

(a) Geographical division: total country

(b) Principal localities and their urban agglomerations (paras. 2.51-2.53): each specified city or town, the urban agglomeration of each specified city or town (when an urban agglomeration comprises more than one specified city or town, each specified city or town should be clearly distinguished)

(c) Sex (para. 2.87): male; female

Use of the tabulation

Information on the population size of the principal cities or towns and of the urban agglomerations of which these cities or towns are a part is needed for the study of the growth of the largest clusters of population within a country. The results of such study are useful in planning the local services (such as utilities, roads, schools, hospitals etc.) that are required in proportion to population size.

The use of figures for urban agglomerations, in addition to those for the city proper, gives a more adequate indication of the size of the concentration of population, which often extends beyond the legal borders of the city. These figures may, in fact, reveal the need to redraw the city boundaries.

For the most effective use of the data, however, figures are needed both for the city proper and for the urban agglomeration, because cities usually have some form of local government that does not extend over the surrounding densely settled fringe. Responsibility for the determination of policy and subsequent action may, therefore, have to be shared by several minor administrative divisions, each of which requires information on the population within its own borders.

Illustration P3. Population of principal localities and of their urban agglomerations, by sex (for early release)

Locality	Both sexes		Sex			
			Male		Female	
	City proper	Urban agglomeration	City proper	Urban agglomeration	City proper	Urban agglomeration
City or town A <u>a/</u> . .						
City or town B <u>a/</u> . .						
City or town C <u>a/</u> . .						
City or town D <u>a/</u> . .						
.						
.						
.						
City or town Z <u>a/</u> . .						

a/ Name of city or town.

P4. Native and foreign-born population by age and sex

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Place of birth (paras. 2.30-2.36): native; foreign-born

(c) Age (paras. 2.88-2.96): under 1 year; 1-4; 5-9; 10-14; 15-19; 20-24; 25-29; 30-34; 35-39; 40-44; 45-49; 50-54; 55-59; 60-64; 65-69; 70-74; 75 and over; not stated

(d) Sex (para. 2.87): male; female

Use of the tabulation

These data are the basis for assessing the net contribution of immigration to the age and sex structure of the population. In countries where immigration has occurred on a large scale, it is very useful to tabulate the data on sex-age structure separately for the native and the foreign-born population. Thus the effects of immigration on the growth and structure of the population

can be examined and estimates of future mortality and fertility can be improved by taking into account the nativity differentials. The provision of the category of infants under one year of age is useful for studying relative under-enumeration of foreign-born and native infants.

Illustration P4. Native and foreign-born population by age and sex

Geographical division, <u>a/</u> sex and age (in years)	Total	Native	Foreign-born	Not stated
<u>Both sexes</u>				
ALL AGES				
Under 1				
1-4				
5-9				
10-14				
15-19				
20-24				
25-29				
30-34				
35-39				
40-44				
45-49				
50-54				
55-59				
60-64				
65-69				
70-74				
75 and over				
Not stated				
<u>Male</u>				
(as for " <u>Both sexes</u> ")				
<u>Female</u>				
(as for " <u>Both sexes</u> ")				

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii) (see paras. 2.227-2.228).

P5. Native population by major civil division of birth, age and sex

Population included: all persons born in the country

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division (distinguish between urban and rural for (i) and (ii)) (paras. 2.54-2.61)

(b) Major civil division of birth (paras. 2.30-2.36): each major civil division of the country; not stated

(c) Age (paras. 2.88-2.96): under one year; 1-4; 5-9; 10-14; 15-19; 20-24; 25-29; 30-34; 35-39; 40-44; 45-49; 50-54; 55-59; 60-64; 65-69; 70-74; 75 and over; not stated

(d) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation is useful for internal migration studies because it provides indications of the magnitude of migration into, and out of, each major part of the country as well as of the ultimate origins of the migrants. Because, however, it identifies only major territorial divisions and does not show either duration of residence or prior place of residence, it fails to provide much of the detailed information on internal migration which countries need. Likewise, it does not supply information on migration to large cities, which is the most important kind of internal migration in many countries. Finally, it overlooks the fact that many foreign-born persons become internal migrants after their initial residence in the country. In spite of these important drawbacks, however, the data serve a useful purpose in countries where no other information on internal migration is available and their compilation is, accordingly, recommended for such countries.

Illustration P5. Native population by major civil division of birth, age and sex

Geographical division <u>a/</u> sex and major civil division of birth	Age (in years)									
	All ages	Under 1	1-4	5-9	10-14	15-19	70-74	75 and over	Not stated
<u>Both sexes</u>										
TOTAL										
Major civil division A <u>b/</u> . . .										
Major civil division B <u>b/</u> . . .										
Major civil division C <u>b/</u> . . .										
.										
.										
.										
Major civil division Z <u>b/</u> . . .										
Not stated										
<u>Male</u>										
(as for " <u>Both sexes</u> ")										
<u>Female</u>										
(as for " <u>Both sexes</u> ")										

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

b/ Name of major civil division.

P6. Foreign-born population by country of birth, age and sex

Population included: foreign-born population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division

(b) Country of birth (paras. 2.30-2.36): each continent (Africa; America, North; America, South; Asia; Europe; Oceania), each country within the continent that is the birthplace of a significant number of foreign-born persons; all other countries (combined) in each continent; country not stated; continent not stated

(c) Age (paras. 2.88-2.96): under 5 years; 5-14; 15-24; 25-34; 35-44; 45-54; 55-64; 65-74; 75 and over; not stated

(d) Sex (para. 2.87): male; female

Use of the tabulation

Data on country of birth are useful in the identification of ethnic groups among immigrants although they do not in themselves give any indication of the degree of assimilation which may have taken place among these groups. They also provide the bases for estimating the volume of net migration from specified countries. The data also threw light on likely problems of cultural assimilation, which are related to the age, sex and country of birth of the immigrants.

Illustration P6. Foreign-born population by country of birth, age and sex

Geographical division, ^{a/} continent and country of birth, and sex	Age (in years)									
	All ages	Under 5	5-14	15-24	25-34	35-44	...	65-74	75 and over	Not stated
<u>Both sexes</u>										
TOTAL										
Africa										
Country A ^{b/} . . .										
Country B ^{b/} . . .										
.										
.										
.										
Country Z ^{b/} . . .										
All other countries										
Country not stated										
America, North . . . (as above)										
America, South . . . (as above)										
Asia (as above)										
Europe (as above)										
Oceania (as above)										
Continent not stated										
<u>Male</u>										
(as for " <u>Both sexes</u> ")										
<u>Female</u>										
(as for " <u>Both sexes</u> ")										

^{a/} This tabulation may be compiled for (i) total country; (ii) each major civil division (see paras. 2.227-2.228).

^{b/} Name of country.

P7. Population by duration of residence in locality and major civil division, age and sex

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Duration of residence in locality (paras. 2.37-2.39): since birth; not since birth - resident for: less than 1 year, 1-4 years, 5-9 years, 10 or more years, number of years not stated; not stated whether resident in locality since birth (for additional categories needed if the tabulation is prepared on the basis of the population present in each area at the time of the census, see the illustration)

(c) Duration of residence in major civil division (paras. 2.37-2.39); as for (b)

(d) Age (paras. 2.88-2.96): under 1 year; 1-4; 5-9; 10-14; 15-19; 20-24; 25-34; 35-44; 45-54; 55-64; 65 and over; not stated

(e) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation provides information on net migration levels. It also shows the direction of in-migration in terms of major civil divisions of the country and the most important localities. Such data are useful for preparing estimates of the future population of specific areas of the country. These estimates are needed both for planning in areas of anticipated growth and for the determination of policy on internal migration and possible measures that can be employed to affect its trend.

Illustration P7. Population by duration of residence in locality and major civil division, age and sex

Geographical division, a/ sex and duration of residence	All ages	Age (in years)									
		Under 1	1-4	5-9	...	20-24	25-54	...	55-64	65 and over	Not stated
<u>Both sexes</u>											
TOTAL											
Resident b/											
Resident in major civil division since birth . .											
Resident in locality since birth											
Not resident in locality since birth . .											
Resident in locality less than 1 year . .											
Resident in locality 1-4 years											
Resident in locality 5-9 years											
Resident in locality 10 or more years . .											
Duration of residence in locality not stated											
Not stated whether resident in locality since birth											
Not resident in major civil division since birth											
Resident in major civil division less than 1 year											
Resident in major civil division 1-4 years											
Resident in locality less than 1 year . .											
Resident in locality 1-4 years											
Duration of residence in locality not stated											
Resident in major civil division 5-9 years											
Resident in locality less than 1 year . .											
Resident in locality 1-4 years											
Resident in locality 5-9 years											
Duration of residence in locality not stated											

Illustration P7 (continued)

Geographical division, a/ sex and duration of residence	All ages	Age (in years)									
		Under 1	1-4	5-9	...	20-24	25-54	...	55-64	65 and over	Not stated
<u>Both sexes</u>											
TOTAL (continued)											
Resident (continued) . . .											
Resident in major civil division 10 or more years											
Resident in locality less than 1 year . . .											
Resident in locality 1-4 years											
Resident in locality 5-9 years											
Resident in locality 10 or more years . . .											
Duration of residence in locality not stated											
Duration of residence in major civil division not stated											
Resident in locality less than 1 year . . .											
Resident in locality 1-4 years											
Resident in locality 5-9 years											
Duration of residence in locality not stated											
Not stated whether resident in major civil division since birth . .											
Resident in locality less than 1 year . . .											
Resident in locality 1-4 years											
Resident in locality 5-9 years											
Resident in locality 10 or more years . . .											
Duration of residence in locality not stated											
Transient or visitor b/ . .											
Not stated whether resident, transient or visitor b/											
<u>Male</u>											
(as for " <u>Both sexes</u> ")											
<u>Female</u>											
(as for " <u>Both sexes</u> ")											

a/ This tabulation may be compiled for (i) total country; (ii) major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

b/ This category is needed only if the tabulation is prepared on the basis of the population present in each area at the time of the census; it is not required if the tabulation is based on the resident population of each area (see para. 2.20).

P8. Population ... years of age and over by place of usual residence, place of residence at a specified date in the past, age and sex (for early release)

Population included: population ... years of age and over

Classifications:

- (a) Geographical division: total country
- (b) Place of usual residence (paras. 2.21-2.25): each major or other civil division of the country
- (c) Place of residence at a specified date in the past (paras. 2.42-2.43): each major or other civil division of the country; foreign country; not stated (for persons who have always resided in the same civil division, the place of previous residence will be the same as the place of usual residence)
- (d) Age (paras. 2.88-2.96): 1-4 years; 5-9; 10-14; 15-19; 20-24; 25-34; 35-44; 45-54; 55-64; 65 and over; not stated
- (e) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation provides information on the sources and direction of migration between civil divisions during a specified period and on the age composition of the migrants. Data from a series of censuses make it possible to assess changes in the phenomena measures for comparable lengths of time. It is therefore useful for preparing estimates of the future population of civil divisions, which are needed for the purposes stated in the use of tabulation P7.

Illustration P8. Population ... a/ years of age and over by place of usual residence, place of residence at a specified date in the past, age and sex
(for early release)

Geographical division, <u>b/</u> place of usual residence, age (in years) and sex	Population ... <u>a/</u> years of age and over	Place of residence at a specified date in the past					
		Major or other civil division A <u>c/</u>	Major or other civil division B <u>c/</u>	Major or other civil division Z <u>c/</u>	Foreign country	Not stated
<u>Both sexes</u>							
TOTAL							
Major or other civil division A <u>c/</u>							
<u>Ages</u>							
1-4							
5-9							
10-14							
15-19							
20-24							
25-34							
35-44							
45-54							
55-64							
65 and over							
Not stated							
Major or other civil division B <u>c/</u> (as for "Major or other civil division A")							
.							
.							
.							
Major or other civil division Z <u>c/</u> (as for "Major or other civil division A")							
<u>Male</u>							
(as for " <u>Both sexes</u> ")							
<u>Female</u>							
(as for " <u>Both sexes</u> ")							

a/ The lower age limit depends on the specified date in the past adopted by the country. The age classification in this illustration is appropriate when the specified date in the past is one year prior to the enumeration.

b/ Total country.

c/ Name of major or other civil division.

P9. Population by place of usual residence, duration of residence, place of previous residence and sex a/

Population included: total population

Classifications:

- (a) Geographical division: total country
- (b) Place of usual residence (paras. 2.21-2.25): each major or other civil division of the country
- (c) Duration of residence in the major or other civil division (paras. 2.37-2.39): since birth; not since birth - resident for: less than 1 year; 1-4 years; 5-9 years; 10 or more years; number of years not stated; not stated whether resident in major or other civil division since birth (for additional categories needed if the tabulation is prepared on the basis of the population present in each area at the time of the census, see illustration 7 above)
- (d) Place of previous residence (paras. 2.40-2.41): each major or other civil division of the country; foreign country; not stated
- (e) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation provides information on the sources and direction of migration between civil divisions. It is, therefore, useful for preparing estimates of the future population of civil divisions, which are needed for the purposes stated in the use of tabulation P7.

Illustration P9. Population by place of usual residence, duration of residence, place of previous residence and sex a/

Geographical division, <u>b/</u> place of usual residence, duration of residence and sex	Total population	Place of previous residence				
		Major or other civil division A <u>c/</u>	Major or other civil division B <u>c/</u>	Major or other civil division Z <u>c/</u>	Foreign country
<u>Both sexes</u>						
TOTAL						
Major or other civil division A <u>c/</u>						
Resident since birth . .						
Not resident since birth						
Resident less than 1 year						
Resident 1-4 years . .						
Resident 5-9 years . .						
Resident 10 or more years						
Duration of residence not stated						
Whether resident since birth not stated						
Major or other civil division B <u>c/</u> (as for "Major or other civil division A")						
.						
.						
.						
Major or other civil division Z <u>c/</u> (as for "Major or other civil division A")						
<u>Male</u>						
(as for " <u>Both sexes</u> ")						
<u>Female</u>						
(as for " <u>Both sexes</u> ")						

a/ This is a tabulation "for early release" when information on "place of residence at a specified date in the past" is not collected and tabulation 8 is therefore not available.

b/ Total country.

c/ Name of major or other civil division.

Group II. Tabulations dealing with household characteristics

2.236. The tabulations in this group deal primarily with the two household topics: "relationship to head or other reference member of the household /or family/" and "household /or family/ composition". The group contains nine tabulations (P10-P18), of which three are for early release.

2.237. The tabulations take into account the characteristics of the head or other reference member of the household, characteristics of the remaining household members and the interrelationships among all members of the household. Tabulations P10-P12 are concerned with the individual characteristics of members of the household and their relationship to the head; tabulations P13-P18 are concerned with the interrelationship among all members of the household.

2.238. In addition to the household topics, "marital status" of household members is included in tabulation P10. "Activity status" and "status in employment" are included in tabulation P12, the former in relation to each member of the household and the latter in relation to heads or other reference members. In tabulation P17 the number of economically active members of the household is cross-classified with size of household.

2.239. The household is also an important component of tabulation P56 (group VI), in which size of household is cross-classified by annual household income.

2.240. For more detailed descriptions of the uses of the data in the tabulations dealing with household characteristics than those given in connexion with each individual tabulation, see the following publications: General Principles for National Programmes of Population Projections as Aids to Development Planning; ^{47/} Manuals on Methods of Estimating Population, Manual VII, Methods of Projecting Households and Families; ^{48/} and National Programmes of Analysis of Population Census Data as an Aid to Planning and Policy-Making. ^{49/}

P10. Population in households, by relationship to head or other reference member of household, marital status and sex, and number of institutional population (for early release)

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).

(b) Relationship to head or other reference member of household (paras. 2.65-2.72): head or other reference member; spouse; child; spouse of child; grandchild or great-grandchild; parent or parent of spouse; other relative; domestic employee; other person not related to the head or other reference member; not stated

^{47/} United Nations publication, Sales No. 65.XIII.2.

^{48/} United Nations publication, Sales No. E.73.XIII.2.

^{49/} United Nations publication, Sales No. 64.XIII.4.

(c) Institutional population (see paras. 1.229-1.230): total number

(d) Marital status (paras. 2.97-2.104): single; married; widowed; divorced; separated; not stated

(e) Sex (para. 2.37): male; female

Use of the tabulation

The household is a basic socio-economic unit in all countries and is often central to the study of social and economic development. This tabulation provides material for the study of the distribution of individuals within households, which can serve to indicate the most typical relationships among members of households and also the proportion of persons living in households with an atypical relationship among their members. Comparison of these data with similar data from an earlier census can provide information on changing patterns of household composition and of some of the characteristics of members of the household, which is useful in the preparation of projections of the number of households.

Illustration P10. Population in households, by relationship to head or other reference member of household, marital status and sex, and number of institutional population

(for early release)

Geographical division, <u>a</u> / relationship to head or other reference member of household and sex	Total	Marital status					
		Single	Married	Widowed	Divorced	Separated	Not stated
TOTAL POPULATION							
Male							
Female							
All households							
Male							
Female							
Head or other reference member <u>b</u> /							
Male							
Female							
Spouse							
Male							
Female							
Child							
Male							
Female							
Spouse of child							
Male							
Female							
Grandchild or great-grandchild							
Male							
Female							
Parent or parent of spouse							
Male							
Female							
Other relative							
Male							
Female							
Domestic employee							
Male							
Female							
Other person not related to the head or other reference member							
Male							
Female							
Not stated							
Male							
Female							
Institutional population							
Male							
Female							
Not stated whether or not living in a household							
Male							
Female							

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

b/ Including persons living alone (one-person households).

P11. Heads or other reference members of households by age and sex, and other household members by age and relationship to head or other reference member

Population included: all members of households

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Relationship to head or other reference member of household (paras. 2.65-2.72): head or other reference member; spouse; child; spouse of child; grandchild or great-grandchild; parent or parent of spouse; other relative; person not related to head or other reference member; not stated

(c) Age of head or other reference member of household (paras. 2.88-2.96): under 25 years; 25-44; 45-64; 65 and over; not stated

(d) Age of other household members (paras. 2.88-2.96): under 15 years; 15-24; 25-44; 45-64; 65 and over; not stated

(e) Sex (para. 2.87): male; female

Use of the tabulation

Data on the age of the head or other reference member of the household and of other household members, classified by their relationship to the head or other reference member, provides additional information for the purposes stated in the use of tabulation P10 and for the study of the prevalence of multigeneration households.

Illustration P11. Heads or other reference members of households a/ by age and sex, and other household members by age and relationship to head or other reference member

Geographical division, b/ age and sex of head or other reference member and age of other household members	Head or other reference member	Relationship of other household members to head or other reference member								
		Total	Spouse	Child	Spouse of child	Grandchild or great-grandchild	Parent or parent of spouse	Other relative	Person not related	Not stated
<u>Both sexes</u>										
ALL AGES										
Under 25 years										
Age of other household members										
Under 15										
15-24										
25-44										
45-64										
65 and over										
Not stated										
25-44 years										
Age of other household members (as for "Under 25 years")										
45-64 years										
Age of other household members (as for "Under 25 years")										
65 years and over										
Age of other household members (as for "Under 25 years")										
Age not stated										
Age of other household members (as for "Under 25 years")										
<u>Male</u>										
(as for " <u>Both sexes</u> ") . . .										
<u>Female</u>										
(as for " <u>Both sexes</u> ") . . .										

a/ Including persons living alone (one-person households).

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

Pl2. Heads or other reference members of households ... years of age and over by activity status, status in employment and sex, and other household members ... years of age and over, by relationship to head or other reference member and activity status

Population included: all members of households at or above the minimum age adopted for enumerating the economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Activity status of head or other reference member of the household (paras. 2.188-2.197): economically active; (i) employed; (ii) unemployed, differentiating persons seeking work for the first time; not economically active, distinguishing between homemaker, student, income recipient, other; not stated

(c) Status in employment of head or other reference member of the household (paras. 2.206-2.208): employer; own-account worker; employee; unpaid family worker; member of producers' co-operative; not classifiable by status

(d) Relationship to head or other reference member of the household (paras. 2.65-2.72): head or other reference member; spouse; child; spouse of child; other relative (including grandchild or great-grandchild and parent or parent of spouse); other person not related to head or other reference member; not stated

(e) Activity status of members of the household other than the head or other reference member of household (paras. 2.188-2.197): (i) Basic classification: economically active, not economically active, not stated (ii) Optional classification: economically active, of which (1) employed, (2) unemployed, differentiating persons seeking work for the first time; not economically active; not stated

Use of the tabulation

This tabulation provides information on the economic structure within households. From the data on the activity status of members of the household, it is possible to derive the proportion of economically active members compared with all members who are old enough to be economically active. The information on the activity status and status in employment of household heads or other reference members is of use not only in itself, particularly in the many cases where the head or other reference member provides the chief economic support for the household, but also in examination of the possible correlation between either or both of these characteristics and the activity status of other household members. The cross-classification by relationship to the head or other reference member permits identification of the possible correlation between activity status and relationship to the head or other reference member.

Illustration F12. Heads of other reference members of households $\frac{1}{2}$... $\frac{1}{2}$ years of age and over, by activity status, status in employment and sex, and other household members ... $\frac{1}{2}$ years of age and over, by relationship to head or other reference member and activity status

Geographical division, $\frac{1}{2}$ activity status, status in employment, and sex of head or other reference member of the household ... $\frac{1}{2}$ years of age and over	Head or other reference member $\frac{1}{2}$	Other members of the household ... $\frac{1}{2}$ years of age and over by relationship to head or other reference member									
		Total all other members		Spouse		Child		Spouse of child		Other relative $\frac{1}{2}$	
		Not economically active	Economically active	Not economically active	Economically active	Not economically active	Economically active	Not economically active	Economically active	Not economically active	Economically active
Both sexes											
Both sexes											
Economically active											
Employed											
Unemployed											
Own account worker											
Employee											
Unpaid family worker											
Number of producers											
co-operative											
Not classifiable by status											
Unemployed $\frac{1}{2}$ working week for the first time											
Not economically active											
Householder											
Student											
Household recipient											
Other											
Not stated											
Not stated											
Male (as for "both sexes")											
Female (as for "both sexes")											

$\frac{1}{2}$ Including persons living alone (one-person households).

$\frac{1}{2}$ The minimum age adopted by the country for enumerating the economically active population.

$\frac{1}{2}$ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.229.

$\frac{1}{2}$ Including grandchild or great-grandchild and parent or parent of spouse.

$\frac{1}{2}$ Experienced unemployed persons may be subdivided by their status in their last employment.

P13. Households, population in households and number of family nuclei, by size of household (for early release)

Population included: all members of households

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Size of household (paras. 2.73-2.75): 1 person; 2 persons; 3 persons; 4 persons; 5 persons; 6 persons; 7 persons; 8 persons; 9 persons; 10 persons or more; not stated; and separately, the number of households of each size and the aggregate population by size of household

(c) Number of family nuclei (paras. 2.79-2.83): none; one; two; three; four or more; not stated; and, separately, the aggregate number of family nuclei

Use of the tabulation

Information on the number and size of households and changes in the rate of household formation is needed by the planners for, and suppliers of, many goods and services, for which the demand is related to households rather than to individuals. Agencies dealing with housing problems are in need of these data for the determination of current and projected rates of household formation, on the basis of which the number and size of new housing units required can be estimated.

The household is the basic unit in many sample surveys. This tabulation can provide information needed to plan new sample surveys, and to design the sample that will be used as well as comparative data for estimating the accuracy of some of the survey results.

Information on household structure in terms of number of family nuclei in the household is needed for studies of households formation, projections of numbers of households and estimates of potential housing needs.

Information from a series of censuses is very useful for the study of the disintegration of the households consisting of several family nuclei in countries where this pattern of living is changing.

**Illustration P13. Households, population in households and number
of family nuclei by size of household**

(for early release)

Geographical division <u>a/</u> and size of household	Total		Households with indicated number of family nuclei						Number of family nuclei
	House- holds	Popu- lation	0	1	2	3	4 or more	Not stated	
ALL HOUSEHOLDS									
Households consisting of:									
1 person									
2 persons									
3 persons									
4 persons									
5 persons									
6 persons									
7 persons									
8 persons									
9 persons									
10 persons or more. . .									
Not stated									

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii) (see paras. 2.227-2.228).

P14. Households and population in households by size and type of household
(for early release)

Population included: all members of households

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii) (paras. 2.54-2.61).

(b) Size of household (paras. 2.73-2.75): 1 person; 2 persons; 3 persons; 4 persons; 5 persons; 6 persons; 7 persons; 8 persons; 9 persons; 10 persons or more; not stated; and, separately, the number of households of each size and the aggregate population by size of household.

(c) Type of household (paras. 2.84-2.85): one-person household; nuclear household; extended household; composite household; unknown; and, separately, the number of households of each type and the aggregate population by type of household.

Use of the tabulation

Tabulations P14 and P15 provide details on household composition, taking into account not only the number of family nuclei, but also household members who are not part of a family nucleus. Further, they set forth the relationship, if any, between the family nuclei in multinuclear households and between any nuclei and other members of the household. They give a more complete indication of household structure than does tabulation P13, which focuses primarily on the number of nuclei. Hence, they are useful for in-depth examination of the demographic and social structure of households, which is essential for the formulation of measures designed to improve family living conditions as well as for the uses mentioned in connexion with tabulation P13.

Illustration Pl⁴. Households and population in households by size and type of household
(for early release)

Geographical division <u>a/</u> and size of household	Total			Type of household							
	House- holds	Popula- tion	One person house- holds	Nuclear		Extended		Composite		Unknown	
				House- holds	Popula- tion	House- holds	Popula- tion	House- holds	Popula- tion	House- holds	Popula- tion
ALL HOUSEHOLDS											
Households consisting of:											
1 person											
2 persons											
3 persons											
4 persons											
5 persons											
6 persons											
7 persons											
8 persons											
9 persons											
10 persons or more											
Not stated											

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

P15. Multiperson households and population in such households, by type and size of household

Population included: all members of multiperson households

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish urban and rural for (i), (ii) and (iii).

(b) Type of household (paras. 2.84-2.85): nuclear household; extended household consisting of (i) one family nucleus and related persons, (ii) two or more related family nuclei without any other persons, (iii) two or more related family nuclei and related persons, (iv) related persons without any family nucleus; composite household consisting of (i) one family nucleus, related and non-related persons, (ii) one family nucleus and non-related persons, (iii) two or more related family nuclei, related and non-related persons, (iv) two or more related family nuclei and non-related persons, (v) two or more non-related family nuclei with or without any other persons, (vi) related persons without any nuclei and non-related persons, (vii) non-related persons; unknown.

(c) Size of household (paras. 2.73-2.75): 2 persons; 3 persons; 4 persons; 5 persons; 6 persons; 7 persons; 8 persons; 9 persons; 10 persons or more; not stated; and, separately, the number of households of each size and the aggregate population by size of household.

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P14.

Illustration P15. Multiperson households and population in such households, by type and size of household

Geographical division <u>a/</u> and type of household	Total		Households and population in households consisting of:								
	Multi- person house- holds	Popula- tion in multi- person house- holds	2 persons		3 persons		10 persons or more		Not stated	
			House- holds	Popula- tion	House- holds	Popula- tion		House- holds	Popula- tion	House- holds	Popula- tion
TOTAL											
Nuclear household											
Extended household											
One family nucleus and related persons											
Two or more related family nuclei without any other persons											
Two or more related family nuclei and related persons											
Related persons without any family nuclei											
Composite household											
One family nucleus, related and non-related persons											
One family nucleus and non-related persons											
Two or more related family nuclei, related and non-related persons											
Two or more related family nuclei and non-related persons											
Two or more non-related family nuclei, with or without any other persons											
Related persons without any nuclei and non-related persons											
Non-related persons											
Unknown											

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

P16. Multiperson households with one or more family nuclei and population in such households, by type of household and family nucleus and by size of household

Population included: all members of multiperson households

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).

(b) Type of household and of family nucleus (paras. 2.79-2.85): nuclear household consisting of (i) married couple without children, with 1 child, 2 children, 3 children, 4 children, 5 children, 6 or more children, (ii) father with 1 child, 2 children, 3 children, 4 children, 5 children, 6 or more children, (iii) mother with 1 child, 2 children, 3 children, 4 children, 5 children, 6 or more children; extended household with only one family nucleus, distinguishing between types (i), (ii) and (iii) as for nuclear household; extended household with two or more family nuclei distinguishing between types (i), (ii) and (iii) as for nuclear household; composite household with only one family nucleus distinguishing between types (i), (ii) and (iii) as for nuclear household; composite household with two or more family nuclei distinguishing between types (i), (ii) and (iii) as for nuclear household; unknown.

(c) Size of household (paras. 2.73-2.75): 2 persons; 3 persons; 4 persons; 5 persons; 6 persons; 7 persons; 8 persons; 9 persons; 10 persons or more; not stated; and, separately, the number of households of each size and the aggregate population by size of household. Also indicated separately are the number of family nuclei and the number of members of family nuclei of each type.

Use of the tabulation

This tabulation extends the information on family nuclei made available in tabulations P14 and P15 by presenting data on the structure of the nuclei themselves according to the type and size of the household. The distinction between nuclei consisting of couples without children, couples with children and only one parent with children is useful for determining the economic and social provisions that may be needed for families with only one parent in the household and for couples living without children. The extent to which nuclei of each type and size live in households of different types yields indications of prevailing arrangements for the provision of living quarters for each type of family nucleus and the need for measures to alleviate these arrangements.

Illustration P16. Multiperson households with one or more family nuclei and population in such households, by type of household and family nucleus and by size of household

Geographical division, a/ type of household and type of family nucleus	Total		Households and population in households consisting of:								Number of family nuclei	Number of members of family nuclei	
	Multi- person house- holds	Popula- tion in multi- person house- holds	2 persons		3 persons		10 persons or more		Not stated			
			House- holds	Popula- tion	House- holds	Popula- tion		House- holds	Popula- tion	House- holds			Popula- tion
Nuclear household . . .													
Married couple . . .													
with:													
No children													
1 child (up to 6 or more children)													
Total													
Father with child/ children:													
1 child (up to 6 or more children)													
Total													
Mother with child/ children: (as for "Father with child/ children")													
Extended household with only one family nucleus (as for "Nuclear household")													
Extended household with two or more family nuclei (as for "Nuclear household")													
Composite household with only one family nucleus (as for "Nuclear household")													
Composite household with two or more family nuclei (as for "Nuclear household")													
Unknown													

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

P17. Households and population in households by size of household and number of economically active members

Population included: all members of households

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).

(b) Size of household (paras. 2.73-2.75): 1 person; 2 persons; 3 persons; 4 persons; 5 persons; 6 persons; 7 persons; 8 persons; 9 persons; 10 persons or more; not stated; and, separately, the number of households of each size and the aggregate population by size of household.

(c) Number of economically active members (paras. 2.191-2.195): none, 1 member; 2 members; 3 members; 4 members; 5 or more members; not stated.

Use of the tabulation

This tabulation supplements the information on the economically active members of households presented in tabulation P12 by providing the data for determining the ratio between economically active and not economically active members according to household size. The usefulness of the data can be increased if they are combined with the data on household income in tabulation P56 to derive information on the relationship between household income and the proportion of household members who are economically active.

Illustration F17. Households and population in households by size of household and number of economically active members

Geographical division a/ and size of household	Households with indicated number of economically active members													
	Total		0		1		2		3		4		5 or more	
	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation
ALL HOUSEHOLDS														
Households consisting of:														
1 person														
2 persons														
3 persons														
4 persons														
5 persons														
6 persons														
7 persons														
8 persons														
9 persons														
10 persons or more														
Not stated														

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

P18. Households and population in households by size of household and number of members under ... years of age

Population included: all members of households

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).

(b) Size of household (paras. 2.73-2.75): 1 person; 2 persons; 3 persons; 4 persons; 5 persons; 6 persons; 7 persons; 8 persons; 9 persons; 10 persons or more; not stated; and, separately, the number of households of each size and the aggregate population by size of household.

(c) Number of members under ... years of age (the minimum age adopted for enumerating the economically active population) (para. 2.187): none; 1 member; 2 members; 3 members; 4 members; 5 or more members; not stated.

Use of the tabulation

This tabulation supplements tabulation P17 by showing the number of household members below the age at which economic activity usually begins. With this information, the ratio of active household members to non-active members in the working ages and the ratio of active members to those below working age can be separately computed according to household size. Data on the number of children below working age, by size of household, are also useful in planning for meeting household needs and for household welfare measures.

Illustration FlB. Households and population in households by size of household and number of members under ... 5/ years of age

Geographical division b/ and size of household	Total		Households and population in households with indicated number of members under ... 5/ years of age													
	House- holds	Popu- lation	0		1		2		3		4		5 or more		Not stated	
			House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation
ALL HOUSEHOLDS																
Households consisting of:																
1 person																
2 persons																
3 persons																
4 persons																
5 persons																
6 persons																
7 persons																
8 persons																
9 persons																
10 persons or more .																
Not stated																

a/ The minimum age adopted by the country for enumerating the economically active population.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

Group III. Tabulations dealing with demographic and
social characteristics

2.241. The tabulations in this group deal with the seven demographic and social topics: "sex", "age", "marital status", "citizenship", "religion", "language" and "national and/or ethnic group". The group contains six tabulations (P19-P24), of which two are for early release.

2.242. "Sex" and "age" are cross-classified by each other and each of the other topics covered in the group. The five other topics appear in only a single tabulation each within the group.

2.243. Because they are fundamental to the great majority of census tabulations, "sex" and "age" are also cross-classified by almost all topics in the tabulations in groups I, II and IV-VI. "Marital status" is included in tabulation P10 (group II), in which it is cross-classified by relationship to the head or other reference member of the household, and in tabulations P37, P48 and P49 (group VI). In the latter group, it is cross-classified by activity status for each sex and with occupation and status in employment for economically active females. Although "national and/or ethnic group" appears in only one tabulation in the present recommendations, it should be noted that some countries have expressed an interest in cross-classifying the topic by a wide range of other population and household characteristics.

2.244. For more detailed descriptions of the uses of the data in the tabulations dealing with demographic and social characteristics than those given in connexion with each individual tabulation, see the following publications: General Principles for National Programmes of Population Projections as Aids to Development Planning, 50/ Manuals on Methods of Estimating Population, Manual II, Methods of Appraisal of Quality of Basic Data for Population Estimates 51/ and Manual III, Methods for Population Projections by Sex and Age, 52/ and National Programmes of Analysis of Population Census Data as an Aid to Planning and Policy-Making. 53/

P19. Population by single years of age and sex (for early release)

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality (distinguish between urban and rural for (i), (ii) and (iii)). (If it is considered inadvisable to present the single-year classification for any particular geographic division, at least the age categories "under 1", "1-4" and the five-year age groups should be shown for that division.)

50/ United Nations publication, Sales No. 65.XIII.2.

51/ United Nations publication, Sales No. 1956.XIII.2.

52/ United Nations publication, Sales No. 1956.XIII.3.

53/ United Nations publication, Sales No. 64.XIII.4.

(b) Age (paras. 2.88-2.96): under 1 year; 1 year; 2 years; 3 years; 4 years; 5 years; 6 years; 7 years; ... single years to 99; 100 years and over; not stated (distinguish between subtotals: 1-4 years, five-year age groups 5-9, 10-14, ... 80-84, and 85 and over)

(c) Sex (para. 2.87): male; female

Use of the tabulation

Information on the detailed age and sex structure of the population is needed for actuarial analysis of the probability of survival and of related life-table functions. It is also essential for the evaluation of the accuracy of census age data for the population. From this tabulation, it is possible to reconstitute any selected age grouping (e.g., the school-age population and the population of voting age or groups used in the calculation of food requirements) without interpolating from five-year age groups.

The five-year age groups are essential for many purposes, including the analysis of the factors of population change, the preparation of current population estimates and of projections, the calculation of age-specific vital rates, analysis of the factors of labour supply and the study of problems of dependency. The grouped age classification is recommended because it is appropriate to cross-classification by other variables. The tabulation provides a convenient summary of the total, urban and rural population by the various geographic areas according to the age groups used in most of the other recommended tabulations. The tabulation should present "raw" /unadjusted/ rather than graduated /adjusted/ age data.

Illustration P19. Population by single years of age and sex
(for early release)

Geographical division <u>a/</u> and age (in years)	Both sexes	Sex	
		Male	Female
ALL AGES			
Under 1			
1			
2			
3			
4			
1-4			
5			
6			
7			
8			
9			
5-9			
.			
.			
.			
99			
100 and over			
Not stated			

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

P20. Population by marital status, age and sex (for early release)

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii) (paras. 2.54-2.61).

(b) Marital status (paras. 2.97-2.104): single; married; widowed; divorced; separated; not stated (Persons whose only, or latest marriage, has been annulled may be classified in a separate category or classified according to their marital status before the annulled marriage took place.)

(c) Age (paras. 2.88-2.96): under 15 years; 15 years; 16 years; ... single years up to 29; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated.

(d) Sex (para. 2.87): male; female.

Use of the tabulation

This tabulation supplies material for the study of age at marriage, in the absence of marriage statistics, and frequency of celibacy, widowhood and divorce and of the effect of these factors on population growth through their influence on fertility. A simple measure of this influence is the comparison of the ratio of children in the population to all women of child-bearing age and the ratio of children to those women who have ever been married. For this type of analysis, information on de facto, rather than legal, marital status is most useful.

Information on the legal marital status of the population as a whole and by sex and age groups is the basis for the computation of a number of crude and age-sex-specific vital statistics rates, including legitimate and illegitimate birth-rates, marriage rates specific for previous marital status, divorce rates based on the married population and mortality rates specific for marital status. The data are also required for the preparation of nuptiality tables.

A refinement of this tabulation, showing heads or other reference members of households by marital status, age and sex, can be used together with the present tabulation to obtain age-sex marital status-specific rates for the head or other reference member. Application of these rates to the projected population by age, sex and marital status provides projected numbers of households.

Illustration P20. Population by marital status, age and sex
(for early release)

Geographical division, a/ sex and marital status	All ages	Age (in years)									
		Under 15	15	16	...	29	30-34	...	70-74	75 and over	Not stated
<u>Both sexes</u>											
TOTAL											
Single											
Married											
Widowed											
Divorced											
Separated											
Not stated											
<u>Male</u> (as for "Both sexes")											
<u>Female</u> (as for "Both sexes")											

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P21. Population by country of citizenship, age and sex

Population included: total population

Classifications:

- (a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division
- (b) Citizenship (paras. 2.105-2.109): citizen; alien; not stated
- (c) Country of citizenship of aliens (paras. 2.105-2.109): each continent (Africa; America, North; America, South; Asia; Europe; Oceania); each country (within continent) which is the country of citizenship of a significant number of aliens; all other countries combined in each continent; country not stated; continent not stated
- (d) Age (paras. 2.88-2.96): under 15 years; 15-24 years; 25-44 years; 45-64 years; 65 years and over; not stated (The age group which includes the age limit for voting may usefully be subdivided to show persons who have attained voting age.)
- (e) Sex (para. 2.87): male; female

Use of the tabulation

The most important use of these data is in connexion with the study of problems relating to the legal status and civil rights of immigrants and other non-citizen groups. In countries, where all native persons are citizens by birth and naturalization is not unduly difficult, the data can be of use in the study of the rate of assimilation of the foreign-born population.

The tabulation also provides information on the national allegiance of population groups within countries and for the world and its regions. Although the data are less efficacious than information on birthplace and language as possible indicators of ethnic composition, they may provide some indications for particular population groups.

In conjunction with the country-of-birth statistics, they can be used to determine comparative rates of naturalization among foreign-born persons.

Illustration P21. Population by country of citizenship,
age and sex

Geographical division, <u>a/</u> continent and country of citizenship and sex	All ages	Age (in years) <u>b/</u>					
		Under 15	15-24	25-44	45-64	65 and over	Not stated
<u>Both sexes</u>							
TOTAL							
Citizens							
Aliens							
Of which:							
Africa							
Country A <u>c/</u>							
Country B <u>c/</u>							
.							
.							
Country Z <u>c/</u>							
All other countries							
Country not stated							
America, North							
(as above)							
America, South							
(as above)							
Asia							
(as above)							
Europe							
(as above)							
Oceania							
(as above)							
Continent not stated							
Not stated							
<u>Male</u>							
(as for "Both sexes")							
<u>Female</u>							
(as for "Both sexes")							

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division (see paras. 2.227-2.228).

b/ The age group which includes the age limit for voting may usefully be subdivided to show persons who have attained voting age.

c/ Name of country.

P22. Population by religion, age and sex

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division

(b) Religion (paras. 2.110-2.112): each religion (and sect, if desired) of significance in the country; all others; no religion; not stated

(c) Age (paras. 2.88-2.96): under 5 years; 5-14 years; 15-24 years; 25-34 years; 35-44 years; 45-54 years; 55-64 years; 65-74 years; 75 years and over; not stated

(d) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation provides the basic information for a quantitative assessment of the relative size and age-sex distribution of the different religious groups in the country. For countries where there are significant differences in economic and social characteristics among persons of different religions, the data are useful for further investigation of the interrelationship between these characteristics and religious belief or affiliation.

Illustration P22. Population by religion, age and sex

Geographical division, <u>a/</u> sex and religion	All ages	Age (in years)						
		Under 5	5-14	15-24	...	65-74	75 and over	Not stated
<u>Both sexes</u>								
TOTAL								
/Each religion (and sect, if desired) of significance in the country/								
All others								
No religion								
Not stated								
<u>Male</u> (as for "Both sexes")								
<u>Female</u> (as for "Both sexes")								

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division (see paras. 2.227-2.228).

P23. Population by language (mother tongue, usual language or ability to speak one or more languages), age and sex

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division; (iii) each principal locality

(b) Language (paras. 2.113-2.116): each language or combination of languages for which separate information is required; all others; not stated

(c) Age (paras. 2.88-2.96): under 5 years; 5-14 years; 15-24 years; 25-34 years; 35-44 years; 45-54 years; 55-64 years; 65-74 years; 75 years and over; not stated

(d) Sex (para. 2.87): male; female

Use of the tabulation

Data on mother tongue are useful as an index to national and/or ethnic groups, which are often reflected in the mother tongue of individuals long after those persons have assimilated other customs of the majority of the country's population.

Data on usual language provide a measure of the linguistic homogeneity or differences in the population. When combined with data on place of birth, they are particularly useful in the study of rates of assimilation of the foreign-born population, which can indicate the possible need for measures to encourage such assimilation.

Information on ability to speak one or more designated languages is needed in connexion with problems of communicating with and educating linguistic minorities. Such data are especially important in countries where more than one official language is recognized and decisions must be taken about the language to be used in schools, in official communications etc.

Tabulation of persons unable to speak the official language of the country, according to their usual language, is particularly useful in connexion with planning for teaching the official language of the country to linguistic minorities.

Illustration P23. Population by language (mother tongue, usual language or ability to speak one or more languages), age and sex

Geographical division, <u>a/</u> sex and language	All ages	Age (in years)						
		Under 5	5-14	15-24	...	65-74	75 and over	Not stated
<u>Both sexes</u>								
TOTAL								
/Each language or combination of languages for which separate information is required/								
All others								
Not stated								
<u>Male</u> (as for "Both sexes")								
<u>Female</u> (as for "Both sexes")								

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality (see paras. 2.227-2.228).

P24. Population by national and/or ethnic group, age and sex

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division

(b) National and/or ethnic group (paras. 2.117-2.118): each group for which separate information is required, all others, not stated

(c) Age (paras. 2.88-2.96): under 5 years; 5-14 years; 15-24 years; 25-34 years; 35-44 years; 45-54 years; 55-64 years; 65-74 years; 75 years and over; not stated

(d) Sex (para. 2.87): male; female

Use of the tabulation

For countries that are not ethnically homogeneous, this tabulation provides the basic information for a quantitative assessment of the relative size and age-sex distribution of the different national and/or ethnic groups. These data are the base for further investigation of other characteristics of each group, which is needed in order to determine the variables connected with ethnic affiliation and to formulate policies designed to alleviate the social and economic handicaps affecting some of the groups.

Illustration P24. Population by national and/or ethnic group, age and sex

Geographical division, <u>a/</u> sex and ethnic group	All ages	Age (in years)						
		Under 5	5-14	15-24	...	65-74	75 and over	Not stated
<u>Both sexes</u>								
TOTAL								
<u>/</u> Each national and/or ethnic group for which separate information is required <u>/</u>								
All others								
Not stated								
<u>Male</u> (as for " <u>Both sexes</u> ")								
<u>Female</u> (as for " <u>Both sexes</u> ")								

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division (see paras. 2.227-2.228).

Group IV. Tabulations dealing with fertility and mortality

2.245 The tabulations in this group deal primarily with the seven fertility and mortality topics: "children born alive", "children living", "age at marriage", "duration of marriage", "live births within the 12 months preceding the census", "deaths of infants born within the 12 months preceding the census" and "maternal orphanhood". The group contains seven tabulations (P25-P31), of which two are for early release.

2.246 Tabulations P25-P29 refer to the female population 15 years of age and over, tabulation P30 refers to a more limited age group of the female population and tabulation P31 refers to the total population. The topic "educational attainment" is included in tabulation P28, where it is cross-classified by age of women and number of children born alive.

2.247 For more detailed descriptions of the uses of the data in the tabulations dealing with fertility and mortality than those given in connexion with each individual tabulation, see the citations in foot-notes 25-28 and 30-32.

P25. Female population 15 years of age and over by age and number of children born alive (for early release)

Population included: female population 15 years of age and over. (If the population included is restricted to ever-married females, this fact should be clearly stated.)

Classifications:

- (a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division. Distinguish between urban and rural for (i) and (ii)
- (b) Age (paras. 2.88-2.96): 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated
- (c) Number of children born alive (paras. 2.124-2.126): none; 1 child; 2 children; 3 children; 4 children; 5 children; 6 children; 7 children; 8 children; 9 children; 10 or more children; and, separately, the aggregate number of children born alive to women in each age category.

Use of the tabulation

Although census data on fertility cannot serve as a substitute for reliable birth-registration statistics, they are particularly valuable for countries where birth-registration statistics are lacking or deficient, because they can be used to estimate current age-specific fertility rates and the crude incidence of births in the total population. In addition, they are useful as a supplement to satisfactory registration data, because they provide a summary of the fertility experience of the female population.

The principal measures of fertility that can be derived from this tabulation are (a) the gross fertility ratio (average number of children born alive to women of child-bearing age and over), (b) the average number of children born alive to women who have reached the end of the child-bearing period (i.e., 50 years and over), (c) the proportion of women who have had no children by the end of their reproductive life, (d) the average number of children born per woman who has already borne at least one child and (e) cumulative average gross fertility ratios by age groups.

The data also provide the base for the computation of birth-rates specific for parity. The use of information from a series of censuses makes it possible to identify cohorts of women and to study their reproductive patterns as they advance from one age group to another.

Illustration P25. Female population 15 years of age and over by age and number of children born alive a/

(for early release)

Geographical division <u>b/</u> and age (in years)	Total females	Female population with indicated number of children born alive						Number of children born alive
		0	1	2	10 or more	Not stated	
TOTAL 15 AND OVER								
15-19								
20-24								
25-29								
30-34								
35-39								
40-44								
45-49								
50-54								
55-59								
60-64								
65-69								
70-74								
75 and over								
Not stated								

a/ If the population included is restricted to ever-married females, this fact should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P26. Female population 15 years of age and over by age and number of children living (for early release)

Population included: female population 15 years of age and over. (If the population included is restricted to ever-married females, this fact should be clearly stated.)

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii)

(b) Age (paras. 2.88-2.96): 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated

(c) Number of children living (paras. 2.128-2.130): none; 1 child; 2 children; 3 children; 4 children; 5 children; 6 children; 7 children; 8 children; 9 children; 10 or more children; not stated; and separately, the aggregate number of children living of women in each age category

Use of the tabulation

The data from this tabulation are most useful for countries where death-registration statistics are lacking or deficient, because they take account of the mortality of live-born children during the lifetime of their mother.

Two measures of fertility can be derived from the tabulations. These are (a) the net fertility ratio (average number of children surviving to women of child-bearing age and over) and (b) cumulative average net fertility ratios by age groups.

Some measure of mortality in the generation can be obtained by comparison of the net fertility ratio derived from this tabulation with the gross fertility ratio, which can be derived from tabulation P25. This measure is particularly valuable where death-rates estimated from fully adequate vital registration statistics are not available.

In addition to the above-mentioned measures of fertility and mortality, the tabulation also provides information for the analysis of family composition by number of living offspring. These data cannot be obtained from birth-registration statistics; neither can they be obtained from the census information on relationship to head of household because census families comprise only those persons who live and are enumerated within the same household; thus they do not necessarily include all the living children of the woman enumerated. A tabulation of families by number of living issue can therefore be useful to all countries.

Illustration P26. Female population 15 years of age and over by age and number of children living a/
(for early release)

Geographical division <u>b/</u> and age (in years)	Total females	Female population with indicated number of children living						Number of children living
		0	1	2	10 or more	Not stated	
TOTAL 15 AND OVER . . .								
15-19								
20-24								
25-29								
30-34								
35-39								
40-44								
45-49								
50-54								
55-59								
60-64								
65-69								
70-74								
75 and over								
Not stated								

a/ If the population included is restricted to ever-married females, this fact should be clearly stated.

b/ This tabulation may be compiled for (i) total country, (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P27. Mothers 15 years of age and over with at least one child under 15 years of age living in the same household by age of mother and by age of children

Population included: mothers 15 years of age and over with at least one child under 15 years of age living in the same household. (If the mothers included are restricted to "ever-married" mothers, this fact should be clearly stated.)

Classifications:

- (a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division. Distinguish between urban and rural for (i) and (ii)
- (b) Age of mothers (paras. 2.88-2.96): 15 years; 16 years; 17 years; ... single years to 29 (with subtotals for 15-19, 20-24 and 25-29 years); 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50 years and over; not stated
- (c) Age of children living with their own mother (paras. 2.88-2.96): under 1 year; 1 year; 2 years; 3 years; 4 years; 5 years; 6 years; 7 years; 8 years; 9 years; 10 years; 11 years; 12 years; 13 years; 14 years

Use of the tabulation

This tabulation provides data that serve for estimating fertility by the "own-children" method, as explained in paragraph 2.123.

Illustration P27. Mothers 15 years of age and over with at least one child under 15 years of age living in the same household, by age of mother and by age of children a/

Geographical division <u>b/</u> and age of mother (in years)	Total number of mothers	Children by age (in years)					
		Total under 15	Under 1	1	13	14
TOTAL 15 AND OVER . . .							
15							
16							
17							
18							
19							
15-19							
20							
21							
22							
23							
24							
20-24							
25							
26							
27							
28							
29							
25-29							
30-34							
35-39							
40-44							
45-49							
50 and over							
Not stated							

a/ If the mothers included are restricted to "ever-married" mothers, this fact should be clearly stated.

b/ This tabulation may be compiled for (i) total country, (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). (See paras. 2.227-2.228)

P28. Female population 15 years of age and over, by age,
number of children born alive and educational attainment

Population included: female population 15 years of age and over. (If the population included is restricted to "ever-married" females, this fact should be clearly stated.)

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii)

(b) Age (paras. 2.88-2.96): 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated

(c) Number of children born alive (paras. 2.124-2.126): none; 1 child; 2 children; 3 children; 4 children; 5 children; 6 children; 7 children; 8 children; 9 children; 10 or more children; not stated; and, separately, the aggregate number of children born alive to women in each age category

(d) Educational attainment (paras. 2.149-2.163): no schooling; first level started but not completed; first level completed; second level started but not completed; second level completed (regardless of any education at the third level); level not stated (the subcategory "special education" should be included in each level if feasible)

Use of the tabulation

This tabulation provides all the measures of fertility that can be derived from tabulation P25 and likewise provides the base for the computation of birth-rates specific for parity. In addition, it makes available information on educational attainment, which is considered to be closely related to fertility differentials and is likely to become increasingly important with educational advances among women.

Illustration P28. Female population 15 years of age and over, by age, number of children born alive and educational attainment a/

Geographical division, <u>b/</u> educational attainment and age (in years)	Total females	Female population with indicated number of children born alive						Number of children born alive
		0	1	2	10 and over	Not stated	
<u>All levels of education</u>								
TOTAL 15 AND OVER								
15-19								
20-24								
.								
.								
70-74								
75 and over								
Not stated								
No schooling (as for "All levels of education")								
First level of education: <u>c/</u> Started but not completed (as for "All levels of education")								
Completed (as for "All levels of education")								
Second level of education: <u>c/</u> Started but not completed (as for "All levels of education")								
Completed <u>d/</u> (as for "All levels of education")								
Level not stated (as for "All levels of education")								

a/ If the population is restricted to "ever-married" females, this fact should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

c/ Including the subcategory "special education" if feasible.

d/ Regardless of any education at the third level.

P29. Female population 15 years of age and over, in their first marriage or married only once, by age at marriage, duration of marriage and number of children born alive

Population included: female population 15 years of age and over, in their first marriage or married only once

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii)

(b) Age at marriage (paras. 2.131-2.134): under 15 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35 years and over; not stated

(c) Duration of marriage (paras. 2.135-2.138): less than 1 year; 1 year; 2 years; ... single years to 14; 15-19 years; 20-24 years; 25-29 years; 30 or more years; not stated

(d) Number of children born alive (paras. 2.124-2.126): none; 1 child; 2 children; 3 children; 4 children; 5 children; 6 children; 7 children; 8 children; 9 children; 10 or more children; not stated; and, separately, the aggregate number of children born alive to women in each category of age at marriage cross-classified with each category of duration of marriage

Use of the tabulation

This tabulation provides, for women in their first marriage, and for widowed, divorced and separated women who have had only one marriage, the data needed for computing all the measures of fertility described in connexion with the use of tabulation P25. The addition of data on age at marriage and on duration of marriage makes it possible to analyse the relationship between these two variables and the fertility patterns of women in their first marriage.

In countries where most births are legitimate, the tabulation is particularly useful for studies of trends in legitimate births, in association with information derived from current civil registration of births, because of the information it provides on years of exposure to the risk of pregnancy.

Illustration P29. Female population 15 years of age and over, in their first marriage or married only once, by age at marriage, duration of marriage and number of children born alive

Geographical division, a/ age at marriage (in years) and duration of marriage (in years)	Total females 15 years of age and over in first marriage or married only once	Females in their first marriage or married only once, with indicated number of children born alive						Number of children born alive
		0	1	2	10 or more	Not stated	
<u>All ages at marriage</u>								
ALL DURATIONS								
Less than 1 year								
1								
2								
.								
.								
14								
15-19								
20-24								
25-29								
30 and over								
Not stated								
Under 15 years at marriage (as for "All ages at marriage")								
15-19 at marriage (as for "All ages at marriage")								
20-24 at marriage (as for "All ages at marriage")								
25-29 at marriage (as for "All ages at marriage")								
30-34 at marriage (as for "All ages at marriage")								
35 and over at marriage (as for "All ages at marriage")								
Age at marriage not stated (as for "All ages at marriage")								

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P30. Female population ... to 49 years of age by age, number of live births within the 12 months preceding the census, and deaths among these live births

Population included: female population between the minimum age-limit adopted by the country for collecting information on current fertility and 49 years of age

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii)

(b) Live births within the 12 months preceding the census (paras. 2.139-2.143): total number

(c) Deaths of infants born within the 12 months preceding the census (paras. 2.144-2.145): total number

(d) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; not stated

Use of the tabulation

This tabulation provides data that serve for estimating current fertility rates and current infant mortality rates, particularly as a supplement to vital rates or as a substitute for these rates where birth and death registration is defective or inadequate.

Illustration P30. Female population ... a/ to 49 years of age by age, number of live births within the 12 months preceding the census, and deaths among these live births b/

Geographical division, <u>c/</u> and age (in years)	Total females ... <u>a/</u> to 49 years of age	Live births	
		Total	Number of which have died
TOTAL			
Under 15 <u>d/</u>			
15-19			
20-24			
25-29			
30-34			
35-39			
40-44			
45-49			
Not stated			

a/ The minimum age adopted by the country for census questions on current fertility.

b/ If the population included is restricted to "ever-married" females, this should be clearly stated.

c/ This tabulation may be compiled for (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

d/ All ages between the minimum age adopted by the country for census questions on current fertility and 14 years, if the minimum is below 15 years.

P31. Population by maternal orphanhood and age

Population included: total population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii)

(b) Maternal orphanhood (paras. 2.146-2.148): natural mother living; natural mother dead; not stated

(c) Age (paras. 2.88-2.96): five-year age groups within the age limits adopted by the country for the investigation of maternal orphanhood

Use of the tabulation

This tabulation provides data that serve for estimating the levels and patterns of adult female mortality, particularly as a substitute for vital rates where death registration is defective or non-existent.

Illustration P31. Population by maternal orphanhood and age

Geographical division, <u>a/</u> and age (in years)	Total population	Natural mother		
		Living	Dead	Not stated
<u>/</u> Five-year age groups within the age limits adopted by the country for the investigation of maternal orphanhood <u>/</u>				

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

Group V. Tabulations dealing with educational characteristics

2.248. The tabulations in this group deal with the four educational topics: "educational attainment", "literacy", "school attendance" and "educational qualifications". The group contains five tabulations (P32-P36), of which two are for early release.

2.249. There are a number of differences in the population coverage of the tabulations, in respect of age and other attributes, which are made evident by their titles. It should also be noted that tabulations P32 and P33 contain both a basic and an optional classification of educational attainment. Both classifications employ categories of the International Standard Classification of Education (ISCED) (see paras. 2.149-2.150) but the basic classification uses only the levels of ISCED listed in paragraph 2.153, while the optional classification uses, in addition, the separate indications and the subdivisions set forth in paragraphs 2.157-2.159.

2.250. "Educational attainment" appears also in tabulation P28 (group IV) cross-classified by age of women and number of children born alive, and in three tabulations of group VI, in which it is cross-classified by "occupation" (tabulation P44), "industry" (tabulation P45) and "place of usual residence" and "duration of residence" (tabulation P47) of the economically active population.

2.251. For more detailed descriptions of the uses of the data in the tabulations dealing with educational characteristics than those given in connexion with each individual tabulation, see the following publications: General Principles for National Programmes of Population Projections as Aids to Development Planning 54/ and National Programmes of Analysis of Population Census Data as an Aid to Planning and Policy-Making. 55/

54/ United Nations publication, Sales No. 65.XIII.2.

55/ United Nations publication, Sales No. 64.XIII.4.

P32. Population ... years of age and over not attending school, by educational attainment, age and sex (for early release)

Population included: all persons at or above the usual age for entrance into school who are not attending school

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Educational attainment (paras. 2.149-2.163):

- (1) Basic classification: no schooling; first level started but not completed; first level completed; second level started but not completed, distinguishing between (i) first stage started but not completed, (ii) first stage completed, (iii) second stage started but not completed; second level completed; third level: first stage (ISCED categories 5 and 6) started but not completed; third level: first stage completed regardless of any education at the third level: second stage (ISCED category 7); level not stated (The subcategory "special education" should be included in each category of the first and second level if feasible.)
- (2) Optional classification: no schooling, distinguishing between illiterate and literate; first level of education, by single grades, grade not stated, special education; second level: first stage, according to type (general education, teacher training, other education) by single grades, grade not stated, special education; second level: second stage (as for second level: first stage); third level: first stage (ISCED category 5) according to type (university or equivalent institution, non-university teacher education, other non-university), by single grades, grade not stated; third level: first stage (ISCED category 6) (as for third level: first stage (ISCED category 5)); third level: second stage (ISCED category 7) according to type (as for third level: first stage); level not stated

(c) Age (paras. 2.88-2.96): ... -14 years; 15-24 years; 25-34 years; 35-44 years; 45-54 years; 55-64 years; 65 years and over; not stated (but over ... years)

(d) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation provides an important indication of the capacity of the nation for economic and social development. It furnishes material for the comparison of the present educational equipment of the adult population with the present and anticipated requirements of educated manpower for various types of economic activities. Such a comparison may serve as a guide both to national policy for the development of the educational system and to the planning of economic development programmes that it would be feasible to

carry out in view of manpower requirements. The tabulation also makes it possible to compute the "index of educational attainment", i.e. the median number of years of formal schooling completed by the population five years of age and over, which is a valuable supplementary indicator of national levels of living.

It should be noted that some countries may find it advisable to restrict the investigation to persons 15 years of age and over (see para. 2.152), and this should be taken into consideration when computing the above-mentioned "index of educational attainment".

Illustration P32. Population ... a/ years of age and over not attending school, by educational attainment, age and sex

(for early release)

Geographical division, <u>b/</u> sex and educational attainment	Total population ... <u>a/</u> years and over	Age (in years)					
		... <u>a/</u> 14	15-24	25-34	65 and over	Not stated
<u>Both sexes</u>							
TOTAL							
No schooling							
First level of education: <u>c/</u>							
Started but not completed							
Completed							
Second level of education <u>c/</u> not completed:							
First stage started but not completed							
First stage completed							
Second stage started but not completed . . .							
Second level of education <u>c/</u> completed							
Third level: first stage of education (ISCED categories 5 and 6):							
Not completed							
Completed <u>d/</u>							
Level not stated							
<u>Male</u> (as for "Both sexes")							
<u>Female</u> (as for "Both sexes")							

a/ The lower age-limit should be the usual age for entrance into school.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

c/ Including a subcategory "special education" if feasible.

d/ Regardless of any education at the third level: second stage (ISCED category 7).

P33. Population ... to 24 years of age attending school, by educational attainment, age and sex

Population included: all persons between the usual age for entrance into school and 24 years of age

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Educational attainment (paras. 2.149-2.163):

- (1) Basic classification: education preceding the first level and less than one completed grade at the first level; first level by single grades, grade not stated; second level: first stage by single grades, grade not stated; second level: second stage by single grades, grade not stated; third level: first stage (ISCED categories 5 and 6) by single grades, grade not stated; third level: second stage (ISCED category 7); special education (not classified by level); level not stated
- (2) Optional classification: education preceding the first level and less than one completed grade at the first level; first level, by single grades, grade not stated, special education; second level: first stage according to type (general education, teacher training, other education) by single grades, grade not stated, special education; second level: second stage (as for second level: first stage; third level: first stage (ISCED category 5) by single grades, grade not stated; third level: first stage (ISCED category 6) by single grades, grade not stated; third level: second stage (ISCED category 7); level not stated

(c) Age (paras. 2.88-2.96): ... -9 years; 10-14 years; 15-19 years; 20-24 years; not stated (but under 25 years) (The lower age-limit should be the usual age for entrance into the first level of school. If it is desired to include older persons attending school, the upper age-limit should be extended as appropriate and the necessary additional categories should be added to the age of classification)

(d) Sex (para. 2.87): male; female

Use of the tabulation

Data on the educational attainment of the school-age population provide information on net attendance in schools at each level. This makes possible the approximate computation of several indicators of levels of living, including (a) total school enrolment ratio, which is the total enrolment in all schools below the third level as a percentage ratio to the population aged approximately 5-19 inclusive, (b) first-level school enrolment ratio, which is the total enrolment in schools at the first level as a percentage ratio to the population aged approximately 5-12 years inclusive, (c) second level school enrolment ratio, which is the total enrolment in

schools at the second level as a percentage ratio to the population aged approximately 12-19 years inclusive, and (d) third (higher) education enrolment ratio, which is the total enrolment in schools at the third level per 100,000 population.

The usefulness of the data can be increased if ages are tabulated in single years. Because, however, the single-year categories will produce an extremely large tabulation and because a separate tabulation of school attendance by single years of age is also recommended (tabulation P35), classification by five-year age groups is considered satisfactory for the present tabulation.

Illustration P33. Population ... a/ to 24 b/ years of age attending school, by educational attainment, age and sex

Geographical division, <u>c/</u> school attendance and educational attainment	Sex and age (in years)							
	Both sexes						Male	Female
	Total ... <u>a/</u> to 24 <u>b/</u>	5-9	10-14	15-19	20-24	Not stated	(as for "Both sexes")	(as for "Both sexes")
TOTAL								
Less than one completed grade at first level .								
First level:								
Grade 1								
.								
.								
Grade not stated . . .								
Second level:								
First stage								
(as for "First level")								
Second stage								
(as for "First level")								
Third level:								
First stage (ISCED category 5)								
(as for "First level")								
First stage (ISCED category 6)								
(as for "First level")								
Second stage (ISCED category 7)								
Special education (not classified by level) .								
Level not stated								

a/ The lower age-limit should be the usual age for entrance into school.

b/ If it is desired to include older persons attending school, the upper age-limit should be extended as appropriate and the necessary additional categories should be added to the age classification.

c/ This tabulation may be compiled for (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P34. Population 10 years of age and over by literacy, age and sex

Population included: all persons 10 years of age and over

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Literacy (paras. 2.164-2.167): literate; illiterate; not stated

(c) Age (paras. 2.88-2.96): 10-14 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-44 years; 45-54 years; 55-64 years; 65 years and over; not stated (but over 9 years)

(d) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation provides one of the indicators of national levels of living and a measure of one of the factors in the national capacity for technological and cultural development; it is needed for tracing the progress in educational development of past generations and projecting future trends.

In countries where the adult population is largely illiterate, the tabulation is of immediate use in planning for adult literacy, particularly if the data are tabulated for local areas.

In addition, these data serve as the denominator in the computation of vital rates differentiated by literacy used as a socio-economic variable, such as birth rates by literacy of mother and marriage and divorce rates by literacy of husband and wife.

Illustration P34. Population 10 years of age a/ and over
by literacy, age and sex

Geographical division, <u>b/</u> sex and age (in years)	Total	Literacy		
		Literate	Illiterate	Not stated
<u>Both sexes</u>				
TOTAL 10 <u>a/</u> AND OVER				
10-14 <u>a/</u>				
15-19				
20-24				
25-29				
30-34				
35-44				
45-54				
55-64				
65 and over				
Not stated				
<u>Male</u>				
(as for "Both sexes")				
<u>Female</u>				
(as for "Both sexes")				

a/ Where it is felt that the literacy rate for the age-group 10-14 years may be misleading in international comparison, the lower age-limit for the tabulation may be 15 years.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

P35. Population ... to 24 years of age by school attendance, single years of age and sex (for early release)

Population included: all persons between the usual age for entering the first level of school and 24 years of age

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) School attendance (paras. 2.168-2.171): attending school; not attending school; not stated

(c) Age (paras. 2.88-2.96): 5 years; 6 years; 7 years; 8 years; 9 years; 10 years; 11 years; 12 years; 13 years; 14 years; 15 years; 16 years; 17 years; 18 years; 19 years; 20 years; 21 years; 22 years; 23 years; 24 years; not stated (but under 25). (The lower age-limit should be the usual age for entrance into the first level of school. If it is desired to include older persons attending school, the upper age should be extended as appropriate and the necessary additional categories should be added to the age classification.)

(d) Sex (para. 2.87): male; female

Use of the tabulation

The classification of young persons attending and not attending school, by single years of age and sex, is essential for studies of the numerical relationship between the population of school age and the population actually in school. The proportion of the school-age population that is able to take advantage of the educational system is one of the first types of information required for the assessment of the adequacy of the educational system of a country.

School enrolment statistics derived from institutional records are not adequate, in many countries, to provide an exact measure of total attendance or data on important characteristics of the school-going population, particularly on age. Even countries with comprehensive, detailed statistics compiled from records of educational institutions can benefit from a periodic assessment of the accuracy of these statistics by comparison with this census information on net school attendance.

Illustration P35. Population ... a/ to 24 b/ years of age by school attendance, single years of age and sex

(for early release)

Geographical division, <u>c/</u> sex and age (in years)	Total	School attendance		
		Attending school	Not attending school	Not stated
<u>Both sexes</u>				
TOTAL				
5 <u>a/</u>				
6				
7				
8				
9				
10				
11				
12				
13				
14				
.				
.				
.				
24 <u>b/</u>				
Not stated (but under 25) <u>b/</u>				
<u>Male</u>				
(as for "Both sexes")				
<u>Female</u>				
(as for "Both sexes")				

a/ The lower age-limit should be the usual age for entrance into school.

b/ If it is desired to include older persons attending school, the upper age-limit should be extended as appropriate and the necessary additional categories should be added to the age classification.

c/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras 2.227-2.228.

P36. Population that has successfully completed a course of study at the third level of education, by educational qualifications, age and sex

Population included: all persons who have successfully completed a course of study at the third level of education

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division; (iii) each principal locality

(b) Educational qualifications (paras. 2.172-2.179): highest degree, diploma, certificate, etc. acquired and field of study

(c) Age (paras. 2.88-2.96): under 20 years; 20-24 years; 25-34 years; 35-44 years; 45-54 years; 55-64 years; 65 years and over; not stated

(d) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation supplements tabulation P32 by providing an important indicator of the nature of the skilled manpower available in the country. It allows estimates to be made of the stock and expected inflow of skilled manpower in different fields, for comparison with the skilled manpower needs of various sectors of the economy.

The addition to the tabulation of a classification by occupation and by industry would furnish a useful supplement to tabulations P44 and P45 by making available information on the extent to which specific skills are being used in the economic structure.

Illustration P36. Population that has successfully completed a course of study at the third level of education, by educational qualifications, age and sex

Geographical division, <u>a</u> / sex and educational qualifications	Total population that has successfully completed a course of study at the third level of education	Age (in years)							
		Under 20	20-24	25-34	35-44	45-54	55-64	65 and over	Not stated
<u>Both sexes</u>									
ALL FIELDS OF STUDY (Classification of degrees, diplomas, certificates etc. adopted by the country)									
General (as for "All fields of study")									
Teacher training (as for "All fields of study")									
Education science and teacher training (as for "All fields of study")									
Fine and applied arts (as for "All fields of study")									
Humanities (as for "All fields of study")									
Religion and theology (as for "All fields of study")									
Social and behavioural sciences (as for "All fields of study")									
Commercial and business administration (as for "All fields of study")									
Business administration and related programmes (as for "All fields of study")									
Law and jurisprudence (as for "All fields of study")									
Natural science (as for "All fields of study")									
Mathematical and computer science (as for "All fields of study")									
Medical diagnostic and treatment (as for "All fields of study")									
Medical science (as for "All fields of study")									
Trade, craft and industrial (as for "All fields of study")									

Illustration P36 (continued)

Geographical division, <u>a</u> / sex and educational qualifications	Total population that has successfully completed a course of study at the third level of education	Age (in years)							
		Under 20	20-24	25-34	35-44	45-54	55-64	65 and over	Not stated
Engineering (as for "All fields of study")									
Architectural and town planning (as for "All fields of study")									
Agricultural, forestry and fishing (as for "All fields of study")									
Home economics (domestic science) (as for "All fields of study")									
Transport and communications (as for "All fields of study")									
Service trades (as for "All fields of study")									
Mass communication and documentation (as for "All fields of study")									
Other fields (as for "All fields of study")									
Not stated (as for "All fields of study")									
<u>Male</u> (as for "Both sexes")									
<u>Female</u> (as for "Both sexes")									

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. See paras. 2.227-2.228.

Group VI. Tabulations dealing with economic characteristics

2.252. The tabulations in this group deal primarily with the six economic topics: "activity status", "occupation", "industry", "status in employment", "time worked" and "income". "Sector of employment" is not dealt with because there is as yet no common basic approach to the topic among the regions. The group contains 20 tabulations (P37-P56), of which four are for early release.

2.253. The majority of the tabulations (P38-P49 and P51-P55) refer to the total economically active population or a segment of it. Within the majority, tabulations P48 and P49 refer to only the economically active female population and tabulations P51-P55 refer to only the economically active employed population. Tabulation P37 covers the total population above the minimum age-limit set for the investigation of economic characteristics (see para. 2.187), tabulation P50 covers the population that is not economically active and tabulation P56 refers to households and the population within them. Tabulation P37 is the only tabulation that specifically identifies the unemployed and, among them, persons seeking work for the first time, but it should be noted that the illustrations for tabulations P38-P49 call for a clear statement of the treatment of unemployed persons, i.e. whether or not they have been included in the tabulation and, if included, how their occupation, industry and status in employment were determined. Countries may also wish to present tabulations P38-P49 separately for the employed population only.

2.254. Several topics related to characteristics other than economic ones are included in some of the tabulations: "marital status" in tabulations P37, P48 and P49, "educational attainment" in tabulations P44, P45 and P47 and "place of usual residence" and "duration of residence" in tabulations P46 and P47. Households by size are an important component of tabulation P56.

2.255. Economic characteristics also appear in tabulations P12 and P17 (group II). In tabulation P12, "activity status" and "status in employment" of the heads or other reference members of households is cross-classified by, inter alia, "activity status" of other household members. In tabulation P17, the number of economically active members of households is cross-classified by size of households.

2.256. For more detailed descriptions of the uses of the data in the tabulations dealing with economic characteristics than those given in connexion with each individual tabulation, see the following publications: Methods of Analysing Census Data on Economic Activities of the Population 56/ and Sex and Age Patterns of Participation in Economic Activity. 57/

56/ United Nations publication, Sales No. E.69.XIII.2.

57/ United Nations publication, Sales No. 61.XIII.4.

P37. Population ... years of age and over by activity status, marital status, age and sex (for early release)

Population included: population at or above the minimum age adopted for enumerating the economically active population

Classifications:

- (a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)
- (b) Activity status (paras. 2.188-2.197): economically active: (i) employed; (ii) unemployed (distinguishing persons seeking work for the first time); not economically active; not stated
- (c) Marital status (paras. 2.97-2.104): single; married; widowed, divorced; separated; not stated
- (d) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)
- (e) Sex (para. 287): male, female

Use of the tabulation

Studies of the growth, composition and distribution of manpower are of fundamental importance for the determination of policies and planning of programmes aimed at full and effective utilization of a nation's human resources. This tabulation provides the data needed for computing crude and age-specific participation rates, that is, the percentages of economically active persons among males and females of each age group, which are fundamental for studies of factors determining the size and composition of a nation's manpower and its relation to the size and structure of the population, and for making manpower projections.

Economic activity rates can also be used in conjunction with life-table functions to calculate the working life of males and females and rates of accession to, and retirement from, economic activity.

Information on the employed and the unemployed furnishes part of the data needed for the appraisal of manpower utilization, which can serve as a guide for short-term and long-term policy planning. It can provide some of the bench-mark data needed for more intensive and current studies of unemployment and underemployment which can be effectuated through labour force sample surveys.

These data also provide material for the analysis of the relation of marital status to economic activity, which is particularly important in

analysing the economic activity of women and the probable effect thereon of any anticipated changes in the distribution of the female population by marital status. If the results are tabulated separately for urban and rural areas, as recommended, they will provide useful approximations of the marital status of women engaged in agriculture and in non-agricultural work. At the same time, the data show the marital status groups in which untapped sources of female labour supply can be found.

The data on marital status for the male population may give an approximate indication of the number of workers who are responsible for the support of dependants, since most married men who are economically active may be presumed to have dependants, while most economically active single persons are probably without dependants.

Illustration P37. Population ... a/ years of age and over by activity status,
marital status, age and sex

(for early release)

Geographical division, <u>b/</u> marital status, sex and age (in years)	Total ... <u>a/</u> years of age and over	Activity status				
		Economically active			Not economic- ally active	Not stated
		Employed	Unemployed			
			Total	Seeking work for the first time		
<u>Both sexes</u>						
ALL AGES						
Under 15 <u>c/</u>						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
50-54						
55-59						
60-64						
65-69						
70-74						
75 and over						
Not stated						
<u>Single</u>						
(as for "All ages")						
Married						
(as for "All ages")						
Widowed						
(as for "All ages")						
Divorced						
(as for "All ages")						
Separated						
(as for "All ages")						
Not stated						
(as for "All ages")						
<u>Male</u>						
(as for "Both sexes")						
<u>Female</u>						
(as for "Both sexes")						

a/ The minimum age adopted by the country for enumerating the economically active population.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii), and (iii). (See paras. 2.227-2.228).

c/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

P38. Economically active population, by occupation, age and sex
(for early release)

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Occupation (paras. 2.198-2.201): according to, or convertible to, the latest revision of the International Standard Classification of Occupations (ISCO), at least to the minor (two-digit) groups. (The illustration uses the minor groups of the 1968 revision.)

(c) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(d) Sex (para. 2.87): male; female

Use of the tabulation

In addition to the picture they present of the age-sex distribution of the population in particular occupations and industries, tabulations P38 and P39 furnish material for analyses of rates of accession to, and withdrawal from, particular types of economic activities. These data make it possible to carry out co-ordinated studies of prospective trends in the number of workers attached to various occupations and industries, within the framework of projections of the total economically active population. The tabulations also provide the denominators for differential analysis of fertility and mortality according to occupation and industry.

Illustration P38. Economically active population by occupation,
age and sex a/
(for early release)

Geographical division <u>b/</u> sex and occupation	All ages	Age (in years)							
		Under 15 <u>c/</u>	15-19	20-24	25-29	70-74	75 and over	Not stated
<u>Both sexes</u>									
TOTAL ECONOMICALLY ACTIVE									
Major group 0/1									
Minor group 0-1 . . .									
Minor group 0-2/0-3 .									
(etc.)									
Major group 2									
Minor group 2-0 . . .									
Minor group 2-1 . . .									
.									
.									
Major group X									
Minor group X-1 . . .									
Minor group X-2 . . .									
Minor group X-3 . . .									
Armed forces									
<u>Male</u>									
(as for "Both sexes")									
<u>Female</u>									
(as for "Both sexes")									

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).
See paras. 2.227-2.228.

c/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

P39. Economically active population by industry, age and sex
(for early release)

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Industry (paras. 2.202-2.205): according to, or convertible to, the latest revision of the International Standard Industrial Classification of All Economic Activities (ISIC), at least to the major (three-digit) groups (The illustration uses the major groups of the 1968 revision.)

(c) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(d) Sex (para. 2.87): male; female

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P38.

Illustration F39. Economically active population by industry,
age and sex a/
(for early release)

Geographical division, b/ sex and industry	All ages	Age (in years)							
		Under 15 <u>c/</u>	15-19	20-24	25-29	70-74	75 and over	Not stated
<u>Both sexes</u>									
TOTAL ECONOMICALLY ACTIVE									
Major division 1									
Major group 111 . . .									
Major group 112 . . . (etc.)									
Major division 2									
Major group 210 . . .									
Major group 220 . . . (etc.)									
.									
.									
Major division 0									
Major group 000 . . .									
<u>Male</u>									
(as for "Both sexes")									
<u>Female</u>									
(as for "Both sexes")									

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

c/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

P40. Economically active population by status in employment, age and sex
(for early release)

Population included: economically active population

Classification:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Status in employment (paras. 2.206-2.208): employer; own-account worker; employee; unpaid family worker; member of producers' co-operative; not classifiable by status

(c) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(d) Sex (para. 2.87): male; female

Use of the tabulation

This tabulation provides the data that serve as a first indicator of socio-economic status. It also makes available useful data for the planning of social welfare schemes, health insurance programmes etc., which frequently pertain only to the employee group.

A classification of unpaid family workers by sex and age is needed for international analysis of activity rates for females, in view of the different practices followed in defining and enumerating this group of workers in different countries.

Illustration P40. Economically active population by status in employment,
age and sex a/
(for early release)

Geographical division, <u>b/</u> sex and age (in years)	Total economically active	Status in employment					Not classifiable by status
		Employer	Own-account worker	Employee	Unpaid family worker	Member of producers' co-operative	
<u>Both sexes</u>							
ALL AGES							
Under 15 <u>c/</u>							
15-19							
20-24							
25-29							
30-34							
35-39							
40-44							
45-49							
50-54							
55-59							
60-64							
65-69							
70-74							
75 and over							
Not stated							
<u>Male</u>							
(as for "Both sexes")							
<u>Female</u>							
(as for "Both sexes")							

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 2.227-2.228.

c/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if minimum is below 15 years.

P41. Economically active population by status in employment, industry and sex

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Status in employment (paras. 2.206-2.208): employer; own-account worker; employee; unpaid family worker; member of producers' co-operative; not classifiable by status

(c) Industry (paras. 2.202-2.205): according to, or convertible to, the latest revision of the International Standard Industrial Classification of All Economic Activities (ISIC), at least to the major (three-digit) groups. (The illustration uses the major groups of the 1968 revision.)

(d) Sex (para. 2.87): male; female

Use of the tabulation

Tabulations P41, P42 and P43 furnish a statistical inventory of a nation's manpower and its utilization that is of inestimable value as an aid in formulating economic policy and planning developmental programmes. Such data play an essential part in analyses of national product and national income. Studies of the proportion of the economically active population in each industrial sector of the economy and of the shifts from one sector to another give information on the level and trend of industrialization and on important aspects of the country's potential for economic development. Studies of migration from rural areas to cities require analysis of the occupational and industrial structure of manpower in the cities and often of the major areas of out-migration, as an aid to assessment of economic aspects of internal migration. Studies of these types are also relevant to programmes of resettlement and to the formulation of policy with respect to internal migration. Also, decisions as to possible sites for industrial establishments require information on the occupational and industrial structure of the labour force in various localities and regions of the country.

In planning for the development and expansion of an educational system and efficient utilization of manpower resources, studies are needed that assess requirements of labour in different industries and occupations.

The cross-classifications of occupation and of industry by status in employment give indications of the occupations and industries in which particular status groups, such as own-account workers and unpaid family workers, are employed, therefore making it possible, for example, to analyse the effect of the inclusion of unpaid family workers on the industrial distribution of the labour force. This is especially important because of the likelihood of significant variations in the definitions of unpaid family workers and in the interpretation of these definitions by enumerators of respondents. In addition, information on the distribution by status of the

labour force in a particular industry is a useful indication of the degree of development of that sector, i.e. the extent to which it employs wage and salary workers as contrasted with the unpaid family workers who are typical of cottage-type industry.

Data on the number of wage and salary workers in different industries are often needed as bench-mark data for current statistics obtained from establishment reports.

Illustration P41. Economically active population by status in employment, industry and sex a/

Geographical division, <u>b/</u> sex and industry	Total economically active	Status in employment					
		Employer	Own- account worker	Employee	Unpaid family worker	Member of producers' co-operative	Not classifiable by status
<u>Both sexes</u>							
TOTAL ECONOMICALLY ACTIVE							
Major division 1							
Major group 111 . . .							
Major group 112 . . .							
(etc.)							
Major division 2							
Major group 210 . . .							
Major group 220 . . .							
(etc.)							
.							
.							
.							
Major division 0							
Major group 000 . . .							
<u>Male</u>							
(as for "Both sexes")							
<u>Female</u>							
(as for "Both sexes")							

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P42. Economically active population by status in employment, occupation and sex

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii).

(b) Status in employment (paras. 2.206-2.208): employer; own-account worker; employee; unpaid family worker; member of producers' co-operative; not classifiable by status

(c) Occupation (paras. 2.198-2.201): according to, or convertible to, the latest revision of the International Standard Classification of Occupations (ISCO), at least to the minor (two-digit) groups. (The illustration uses the minor groups of the 1968 revision.)

(d) Sex (para. 87): male; female

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P41.

Illustration P42. Economically active population by status in employment, occupation and sex a/

Geographical division, <u>b/</u> sex and occupation	Total economically active	Status in employment					
		Employer	Own- account worker	Employee	Unpaid family worker	Member of producers' co-operative	Not classifiable by status
<u>Both sexes</u>							
TOTAL ECONOMICALLY ACTIVE							
Major group 0/1							
Minor group 0-1							
Minor group 0-2/0-3 .							
(etc.)							
Major group 2							
Minor group 2-0							
Minor group 2-1							
.							
.							
.							
Major group X							
Minor group X-1							
Minor group X-2							
Minor group X-3							
Armed forces							
<u>Male</u>							
(as for "Both sexes")							
<u>Female</u>							
(as for "Both sexes")							

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P43. Economically active population by industry, occupation and sex

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii).

(b) Industry (paras. 2.202-2.205): according to, or convertible to, the latest revision of the International Standard Industrial Classification of All Economic Activities (ISIC), at least to the major (three-digit) groups. (The illustration uses the major groups of the 1968 revision.)

(c) Occupation (paras. 2.198-2.201): according to or convertible to the latest revision of the International Standard Classification of Occupations (ISCO), at least to the minor (two-digit) groups. (The illustration uses the minor groups of the 1968 revision.)

If the detailed cross-classification according to the major groups of ISIC and the minor groups of ISCO is not feasible, the major divisions (one-digit) of ISIC or, preferably, the divisions (two-digit) of ISIC may be substituted for the major groups of ISIC, but the minor groups of ISCO should be retained because the detailed occupation data are of greater use than the detailed industry data.

(d) Sex (para. 2.87): male; female

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P41.

Illustration P43. Economically active population by industry, occupation and sex a/

Geographical division, <u>b/</u> sex and occupation	Total economically active	Industry <u>c/</u>						Major division 0 Major group 000
		Major division 1			Major division 2				
		Major group			Major group				
		111	112	(etc.)	210	220	(etc.)		
<u>Both sexes</u>									
TOTAL ECONOMICALLY ACTIVE									
Major group 0/1									
Minor group 0-1									
Minor group 0-2/0-3									
(etc.)									
Major group 2									
Minor group 2-0									
Minor group 2-1									
.									
.									
.									
Major group X									
Minor group X-1									
Minor group X-2									
Minor group X-3									
Armed forces									
<u>Male</u>									
(as for "Both sexes")									
<u>Female</u>									
(as for "Both sexes")									

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

c/ If the classification by major groups of the International Standard Industrial Classification of All Economic Activities is not feasible, the total for each major division or, preferably, for each division may be shown instead.

P44. Economically active population, by occupation, educational attainment, age and sex

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii).

(b) Occupation (paras. 2.198-2.201): according to, or convertible to, the latest revision of the International Standard Classification of Occupations (ISCO), at least to the minor (two-digit) groups. (The illustration uses the minor groups of the 1968 revision.)

(c) Educational attainment (paras. 2.149-2.163): no schooling; first level started but not completed; first level completed; second level started but not completed; second level completed; third level: first stage started but not completed; third level: first stage completed (regardless of any education at the third level: second stage), level not stated. (The subcategory "special education" should be included in each category of the first and second level if feasible.)

(d) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-44 years; 45-64 years; 65 years and over; not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(e) Sex (para. 2.87): male, female

Use of the tabulation

Tabulations P44 and P45 provide data needed for the analysis of present requirements for educated manpower and the degree to which they are satisfied by the present manpower resources. They also furnish information on the extent to which education is being used in the economic structure.

Illustration P44. Economically active population by occupation, educational attainment, age and sex a/

Geographical division, <u>b/</u> sex, educational attainment and age (in years)	Total econo- mically active	Occupation										Armed forces
		Major group 0/1			Major group 2		Major group X				
		Minor group			Minor group			Minor group				
		0-1	0-2/ 0-3	(etc.)	2/0	2-1		X-1	X-2	X-3		
<u>Both sexes</u>												
<u>All levels of education</u>												
ALL AGES												
Under 15 years <u>c/</u>												
15-19												
20-24												
25-44												
45-64												
65 and over												
Not stated												
No schooling												
(as for "All levels of education") .												
First level of education: <u>d/</u>												
Not completed												
(as for "All levels of education")												
Completed												
(as for "All levels of education")												
Second level of education: <u>d/</u>												
Not completed												
(as for "All levels of education")												
Completed												
(as for "All levels of education")												
Third level of education:												
First stage not completed												
(as for "All levels of education")												
First stage completed <u>e/</u>												
(as for "All levels of education")												
Level not stated												
(as for "All levels of education")												
<u>Male</u>												
(as for "Both sexes")												
<u>Female</u>												
(as for "Both sexes")												

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

c/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if minimum is below 15 years.

d/ Including a subcategory "special education" if feasible.

e/ Regardless of any education at the third level: second stage.

P45. Economically active population, by industry, educational attainment, age and sex

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii).

(b) Industry (paras. 2.202-2.205): according to, or convertible to, the latest revision of the International Standard Industrial Classification of All Economic Activities (ISIC), at least to the major (three-digit) groups. (The illustration uses the major groups of the 1968 revision.)

(c) Educational attainment (paras. 2.149-2.163): no schooling; first level started but not completed; first level completed; second level started but not completed; second level completed; third level: first stage started but not completed; third level: first stage completed (regardless of any education at the third level-second stage); level not stated. (The subcategory "special education" should be included in each category of the first and second level if feasible.)

(d) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-44 years; 45-64 years; 65 years and over; not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(e) Sex (para. 2.87): male; female

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P44.

Illustration P45. Economically active population by industry, educational attainment, age and sex a/

Geographical division, <u>b/</u> sex, educational attainment and age (in years)	Total economic- ally active	Industry						. . .	Major division 0
		Major division 1			Major division 2				Major group 000
		Major group			Major group				
		111	112	etc.	210	220	etc.		
<u>Both sexes</u>									
All levels of education									
ALL AGES									
Under 15 years <u>c/</u>									
15-19									
20-24									
25-44									
45-64									
65 and over									
Not stated									
No schooling (as for "All levels")									
First level of education: <u>d/</u>									
Not completed (as for "All levels")									
Completed (as for "All levels")									
Second level of education: <u>d/</u>									
Not completed (as for "All levels")									
Completed (as for "All levels")									
Third level of education:									
First stage not completed (as for "All levels")									
First stage completed <u>e/</u> (as for "All levels")									
Level not stated (as for "All levels")									
<u>Male</u> (as for "Both sexes")									
<u>Female</u> (as for "Both sexes")									

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality (distinguish between urban and rural for (i) and (ii)). See paras. 2.227-2.228.

c/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

d/ Including a subcategory "special education" if feasible.

e/ Regardless of any education at the third level: second stage.

P46. Economically active population by occupation, place of usual residence, duration of residence, age and sex

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division. Distinguish between urban and rural for (i) and (ii)

(b) Occupation (paras. 2.198-2.201): according to, or convertible, to the latest revision of the International Standard Classification of Occupations (ISCO) at least to the major (one-digit) groups. (The illustration uses the major groups of the 1968 revision.)

(c) Place of usual residence (paras. 2.21-2.25): each major or other civil division of the country

(d) Duration of residence in the major or other civil division (paras. 2.37-2.39): since birth; not since birth - resident for: less than one year, 1-4 years, 5-9 years, 10 or more years, number of years not stated; whether resident in major or other civil division since birth not stated

(e) Age (paras. 2.88-2.96): under 15 years, 15-24 years; 25-44 years; 45-64 years; 65 and over; not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(f) Sex (para. 2.87): male; female

Use of the tabulation

Tabulations P46 and P47 supplement tabulation P7 by providing information correlating internal migration characteristics with the occupation and with the educational attainment of the population. Data on the occupations and educational levels of the groups that have demonstrated relatively more or less mobility in the past are useful in estimating future in-migration. When used together with information on differential economic development, in particular civil divisions of the country, the data are pertinent to formulation of economic policy.

Illustration P46. Economically active population by occupation, place of usual residence, duration of residence, age and sex ^{a/}

Geographical division, b/ sex, place of usual residence and duration of residence	Total economically active	Occupation and age (in years)							Major group X (as for "Major group 0/1")	Armed forces (as for "Major group 0/1")
		Major group 0/1								
		All ages	Under 15	15- 24	25- 44	45- 64	65 and over	Not stated		
<u>Both sexes</u>										
TOTAL										
Major or other civil division A c/ . . .										
Resident since birth										
Not resident since birth:										
Resident less than 1 year.										
Resident 1-4 years . . .										
Resident 5-9 years . . .										
Resident 10 or more years .										
Duration of residence not stated .										
Not stated whether resident since birth										
Major or other civil division B c/. . . .										
(as for "Major or other civil division A") . . .										
.										
.										
Major or other civil division Z c/. . . .										
(as for "Major or other civil division A") . . .										
<u>Male</u>										
(as for "Both sexes")										
<u>Female</u>										
(as for "Both sexes")										

^{a/} The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

^{b/} Total country, distinguish between urban and rural (see paras. 254-261).

^{c/} Name of major or other civil division.

P47. Economically active population by educational attainment, place of usual residence, duration of residence, age and sex

Population included: economically active population

Classifications:

(a) Geographical division: total country. Distinguish between urban and rural (paras. 2.54-2.61)

(b) Educational attainment (paras. 2.149-2.163):

- (1) Basic classification: no schooling; first level not completed; first level completed; second level not completed; second level completed; third level: first stage (ISCED categories 5 and 6) not completed; third level: first stage (ISCED categories 5 and 6) completed (regardless of any education at the third level: second stage); level not stated (The subcategory "special education" should be included in each category of the first and second level, if feasible.)
- (2) Optional classification: no schooling; first level not completed; first level completed; second level: first stage not completed; second level: first stage completed; second level: second stage not completed; second level: second stage completed; third level: first stage (ISCED categories 5 and 6) not completed; third level: first stage (ISCED categories 5 and 6) completed; third level: second stage (ISCED category 7) not completed; third level: second stage (ISCED category 7) completed; level not stated (The subcategory "special education" should be included in each category of the first and second level, if feasible.)

(c) Place of usual residence (paras. 2.21-2.25): each major or other civil division of the country

(d) Duration of residence in the major or other civil division (paras. 2.37-2.39): since birth; not since birth - resident for: less than one year, 1-4 years, 5-9 years, 10 or more years, number of years not stated; whether resident in major or other civil division since birth not stated

(e) Age (paras. 2.88-2.96): under 15 years; 15-24 years; 25-44 years; 45-64 years; 65 years and over; not stated (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(f) Sex (para. 2.87): male; female

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P46.

Illustration #47. Economically active population by educational attainment, place of usual residence, duration of residence, age and sex ^{g/}

Educational attainment														
Geographical division, b/ place of usual residence, duration of residence and sex	Total economically active	No schooling						First level of education c/		Second level of education c/		Third level: first stage of education		Level of education not stated (as for "No schooling")
		All ages	Under 15 years d/	15-24 years	25-44 years	45-64 years	65 years and over	Age not stated	Not completed (as for "No schooling")	Completed (as for "No schooling")	Not completed (as for "No schooling")	Completed e/ (as for "No schooling")		
Both sexes														
TOTAL														
Major or other civil division A 2/														
Resident since birth . .														
Not resident since birth:														
Resident less than														
1 year														
Resident 1-4 years . .														
Resident 5-9 years . .														
Resident 10 or more years														
Duration of residence not stated														
Not stated whether resident since birth . .														
Major or other civil division B 2/ (as for "Major or other civil division A")														
Major or other civil division 2 2/ (as for "Major or other civil division A")														
Male (as for "Both sexes")														
Female (as for "Both sexes")														

^{a/} The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

^{b/} Total country (distinguish between urban and rural, see paras. 2.34-2.61).

^{c/} Including a subcategory "special education" if feasible.

^{d/} All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

^{e/} Regardless of any education at the third level: second stage.

^{f/} None of major or other civil division.

P48. Economically active female population by occupation,
marital status and age

Population included: economically active female population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country;
(ii) each major civil division; (iii) each principal locality. Distinguish between
urban and rural for (i) and (ii)

(b) Occupation (paras. 2.198-2.201): according to, or convertible to the
latest revision of the International Standard Classification of Occupations (ISCO),
at least to the major (one-digit) groups. (The illustration uses the major groups
of the 1968 revision.)

(c) Marital status (paras. 2.97-2.104): single; married; widowed; divorced;
separated; not stated

(d) Age (paras. 2.88-2.96): under 15 years; 15-25 years; 25-44 years;
45-64 years; 65 years and over; not stated. (The category "under 15 years" should
include all ages between the minimum age-limit adopted by the country for census
questions on economic activity and 14 years, if the minimum is below 15 years.)

Use of the tabulation

The data for the female population in this tabulation, together with
those from the tabulation of the population by activity status, marital status,
age and sex (tabulation P37), provide material for the analysis of the relation
of marital status to the broad occupation of economically active women and of
the probable effect thereon of any anticipated changes in the distribution of
the female population by marital status.

It should be noted that the present tabulation calls for occupation
categories according to, or convertible to, only the major groups of ISCO.
Although data according to the more detailed minor groups would be interesting
and useful, because it would give a more precise picture of occupations that
attract (or are available to) women in specific age-marital-status categories,
it would necessitate an unduly expanded tabulation.

Illustration P48. Economically active female population by occupation,
marital status and age a/

Geographical division <u>b/</u> marital status and age (in years)	Total economically active female population	Occupation				
		Major group 0/1	Major group 2	Major group X	Armed forces
<u>Total</u>						
ALL AGES						
Under 15 years <u>c/</u>						
15-24						
25-44						
45-64						
65 and over						
Not stated						
Single (as for "Total")						
Married (as for "Total")						
Widowed (as for "Total")						
Divorced (as for "Total")						
Separated (as for "Total")						
Not stated (as for "Total")						

a/ The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

b/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228

c/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

P49. Economically active female population by status in employment, marital status and age

Population included: economically active female population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Status in employment (paras. 2.206-2.208): employer, own-account worker; employee; unpaid family worker; member of producers' co-operative; not classifiable by status

(c) Marital status (paras. 2.97-2.104): single, married; widowed; divorced; separated; not stated

(d) Age (paras. 2.88-2.96): under 15 years; 15-24 years; 25-44 years; 45-64 years; 65 years and over, not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if minimum is below 15 years.)

Use of the tabulation

The data for the female population in this tabulation, together with those from the tabulation of the population by activity status, marital status, age and sex (tabulation P37), provide material for the analysis of the relation of marital status to the status in employment of economically active women and of the probable effect thereon of any anticipated changes in the distribution of the female population by marital status.

Illustration P49. Economically active female population by status in employment, marital status and age ^{a/}

Geographical division ^{b/} marital status and age (in years)	Total economically active female population	Status in employment					Not classifiable by status
		Employer	Own- account worker	Employee	Unpaid family worker	Member of producers' co-operative	
<u>Total</u>							
ALL AGES							
Under 15 years ^{c/} .							
15-24							
25-44							
45-64							
65 and over							
Not stated							
Single (as for "Total")							
Married (as for "Total")							
Widowed (as for "Total")							
Divorced (as for "Total")							
Separated (as for "Total")							
Not stated (as for "Total")							

^{a/} The treatment of unemployed persons (including those seeking work for the first time) should be clearly stated.

^{b/} This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

^{c/} All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

P50. Population not economically active by functional categories, age and sex

Population included: population not economically active

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division

(b) Functional categories (paras. 2.196-2.197): homemaker; student; income-recipient; other; not stated

(c) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-39 years; 40-44 years; 45-49 years; 50-54 years; 55-59 years; 60-64 years; 65-69 years; 70-74 years; 75 years and over; not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(d) Sex (para. 2.87): male, female

Use of the tabulation

This tabulation is of use in providing information for the analysis of potential sources of manpower that are not at present readily available but that may become so under different circumstances.

Illustration P50. Population not economically active, by functional categories, age and sex

Geographical division a/ sex and age (in years)	Total not economically active	Functional categories				
		Home-maker	Student	Income- recipient	Other	Not stated
<u>Both sexes</u>						
ALL AGES						
Under 15 b/						
15-19						
20-24						
25-29						
30-34						
35-39						
40-44						
45-49						
50-54						
55-59						
60-64						
65-69						
70-74						
75 and over						
Not stated						
<u>Male</u>						
(as for "Both sexes")						
<u>Female</u>						
(as for "Both sexes")						

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division. See paras. 2.227-2.228.

b/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

P51. Employed population by hours worked during the week, age and sex

Population included: employed population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Hours worked (paras. 2.209-2.211): number of hours worked during the week preceding the census: less than 8 hours; 9-16 hours; 17-24 hours; 25-32 hours; 33-40 hours; 41-48 hours; 49-56 hours; 57 hours and over: not stated

(c) Age (paras. 2.88-2.96): under 15 years; 15-19 years; 20-24 years; 25-29 years; 30-34 years; 35-44 years; 45-54 years; 55-64 years; 65 years and over: not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(d) Sex (para. 2.87): male, female

Use of the tabulation

Tabulations P51, P52, P53 and P54 provide information for the analysis of underemployment by age, by occupation and by industry. In tabulation P51, time worked is set forth in hours worked during the week preceding the census; in tabulation P52, time worked is set forth in months worked during the 12 months preceding the census. Either tabulation, or both, can be used in accordance with the information desired. In tabulations P53 and P54, a choice of time classification is indicated.

Illustration P51. Employed population by hours worked during the week, age and sex

Geographical division, a/ age and sex	Total Employed		Hours worked during the week preceding the census							
		Less than 8	9-16	17-24	25-32	33-40	41-48	49-56	57 and over	Not stated
<u>Both sexes</u>										
ALL AGES										
Under 15 years b/ .										
15-19										
20-24										
25-29										
30-34										
35-44										
45-54										
55-64										
65 and over										
Not stated										
<u>Male</u> (as for "Both sexes")										
<u>Female</u> (as for "Both sexes")										

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

b/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

P52. Economically active population by months worked during the year, age and sex

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Months worked (paras. 2.209-2.211): number of months worked during the 12 months preceding the census: less than one month; one month to less than three months; three months to less than six months; six months to less than nine months; nine months to 12 months; not stated

(c) Age (paras. 2.88-2.96): under 15 years, 15-19 years, 20-24 years, 25-29 years, 30-34 years, 35-44 years, 45-54 years, 55-64 years, 65 and over, not stated. (The category "under 15 years" should include all ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.)

(d) Sex (para. 2.87): male, female

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P51.

Illustration P52. Economically active population, by months worked during the year, age and sex

Geographical division, <u>a/</u> age and sex	Total econom- ically active	Months worked during the 12 months preceding the census					
		Less than one month	One month to less than three months	Three months to less than six months	Six months to less than nine months	Nine months to less than twelve months	Not stated
<u>Both sexes</u>							
ALL AGES							
Under 15 years <u>b/</u> . . .							
15-19							
20-24							
25-29							
30-34							
35-44							
45-54							
55-64							
65 and over							
Not stated							
<u>Male</u>							
(as for "Both sexes") .							
<u>Female</u>							
(as for "Both sexes") .							

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

b/ All ages between the minimum age-limit adopted by the country for census questions on economic activity and 14 years, if the minimum is below 15 years.

P53. Employed population or total economically active population by time worked, occupation and sex

Population included: employed population or total economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Time worked (paras. 2.209-2.211):

(1) Hours worked by employed population during the week preceding the census (see tabulation P51) or

(2) Months worked by total economically active population during the 12 months preceding the census (see tabulation P52)

(c) Occupation (paras. 2.198-2.201): according to, or convertible to, the latest revision of the International Standard Classification of Occupations (ISCO), at least to the major (one-digit) group. (The illustration uses the major groups of the 1968 revision.)

(d) Sex (para. 2.87): male, female

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P51.

Illustration P53. Employed population or total economically active population by time worked, occupation and sex

Geographical division, <u>a/</u> time worked and sex	Total employed or total economy- cally active	Occupation				
		Major group 0/1	Major group 2	Major group X	Armed forces
<u>Both sexes</u>						
(1) Hours worked during the week preceding the census (see tabulation P51)						
or						
(2) Months worked during the 12 months preceding the census (see tabulation P52)						
<u>Male</u>						
(as for "Both sexes")						
<u>Female</u>						
(as for "Both sexes")						

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P54. Employed population or total economically active population, by time worked, industry and sex

Population included: employed population or total economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Time worked (paras. 2.209-2.211):

(1) Hours worked by employed population during the week preceding the census (see tabulation P51)

or

(2) Months worked by total economically active population during the 12 months preceding the census (see tabulation P52)

(c) Industry (paras. 2.202-2.205): according to, or convertible to, the latest revision of the International Standard Industrial Classification of All Economic Activities (ISIC), at least to the major (one-digit) divisions. (The illustration uses the major divisions of the 1968 revision.)

(d) Sex (para. 2.87): male; female

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P51.

Illustration P54. Employed population or total economically active population, by time worked, industry and sex

Geographical division, <u>a/</u> time worked and sex	Total employed or total econom- ically active	Industry			
		Major division 1	Major division 2	Major division 0
<u>Both sexes</u>					
(1) Hours worked during the week preceding the census (see tabulation P51)					
and/or					
(2) Months worked during the 12 months preceding the census (see tabulation P52)					
<u>Male</u>					
(as for "Both sexes")					
<u>Female</u>					
(as for "Both sexes")					

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P55. Economically active population by monthly income, occupation and sex

Population included: economically active population

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii)

(b) Income (paras. 2.212-2.215): income classification adopted by the country, preferably distinguishing approximately each 5 percentile or 10 percentile group

(c) Occupation (paras. 2.198-2.201): according to, or convertible to, the latest revision of the International Standard Classification of Occupation (ISCO), at least to the minor (two-digit) groups. (The illustration uses the minor groups of the 1968 revision.)

(d) Sex (para. 2.87): male; female

Use of the tabulation

Tabulations P55 and P56 furnish basic information on income and occupation, useful as indicators of socio-economic status.

The present tabulation is also needed for appraising variations in the income level of persons both within and among groups of occupations. The tabulation can usefully be expanded to include a cross-classification by broad age groups (e.g., under 15 years, 15-64 years, 65 years and over).

Tabulation P56 is particularly needed for the planning of welfare schemes relevant to households. It can usefully be expanded to include a cross-classification by number of economically active members in the household.

Illustration P55. Economically active population by monthly income, occupation and sex

Geographical division, <u>a/</u> sex and occupation	Total econo- mically active	Monthly income
		<u>/Income classification adopted by the country/</u>
<u>Both sexes</u>		
Total economically active		
Major group 0/1		
Minor group 0-1		
Minor group 0-2/0-3 (etc.)		
Major group 2		
Minor group 2-0		
Minor group 2-1		
.		
.		
Major group X		
Minor group X-1		
Minor group X-2		
Minor group X-3		
Armed forces		
<u>Male</u>		
(as for "Both sexes")		
<u>Female</u>		
(as for "Both sexes")		

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

P56. Households and population in households by annual income and size of household

Population included: all members of households

Classifications:

(a) Geographical division (paras. 2.227-2.228): (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii).

(b) Size of household (paras. 2.73-2.74): 1 person; 2 persons; 3 persons; 4 persons; 5 persons; 6 persons; 7 persons; 8 persons; 9 persons; 10 or more persons; not stated; and, separately, the number of households of each size and the aggregate population by size of household.

(c) Income (paras. 2.212-2.215): income classification adopted by the country, preferably distinguishing approximately each 5-percentile or 10-percentile group.

Use of the tabulation

The use of this tabulation is discussed in conjunction with that of tabulation P55.

Illustration P56. Households and population in households by annual income and size of household

Geographical division, <u>a/</u> and size of households	Total		Annual income							
			Less than - and over		Not stated	
	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation	House- holds	Popu- lation
ALL HOUSEHOLDS										
Households consisting of:										
1 person										
2 persons										
3 persons										
4 persons										
5 persons										
6 persons										
7 persons										
8 persons										
9 persons										
10 persons or more										
Not stated										

a/ This tabulation may be compiled for (i) total country; (ii) each major civil division; (iii) each principal locality. Distinguish between urban and rural for (i) and (ii). See paras. 2.227-2.228.

Part Three

Topics and tabulations for housing censuses

VII. TOPICS TO BE INVESTIGATED IN HOUSING CENSUSES

A. Factors determining the selection of topics

3.1. With reference to the selection of topics to be included in a housing census, attention is drawn to the importance of limiting statistical inquiries to the collection of data that can be processed and published within a reasonable period of time. Such admonitions are especially applicable in connexion with housing census, since it is customary to conduct housing and population census as simultaneous or consecutive operations and there is more than the usual possibility that the amount of data included may be beyond the capacity of enumerators and data-processing facilities. It may be sufficient in some developing countries, for example, to ascertain only the number of housing units and other living quarters of various types, the number and characteristics of the occupants thereof and the availability of a water supply system. Indeed, it might be neither feasible nor desirable in some cases to do more and, if more were attempted, the success of the census might be jeopardized.

3.2. However, it is false economy to collect housing data which are so incomplete that they fail to serve the principal purposes for which they are required. In this connexion, it is important for census-takers to consult closely with the principal users (housing programmers, for example) at an early stage in the preparations for a housing census in order to concentrate on providing the data most urgently required and supplying them in their most useful form.

3.3. The topics to be covered on the questionnaire (that is, the subject regarding which information is to be collected for living quarters, households and buildings) should be determined upon balanced consideration of (a) the needs of the country (national as well as local) to be served by the census data; (b) achievement of the maximum degree of international comparability, both within regions and on a world-wide basis; (c) the probable willingness and ability of respondents to give adequate information on the topics; (d) the technical competence of the enumerators to obtain information on the topics by direct observation and (e) the total national resources available for enumeration, processing, tabulation and publication, and establishment of a data base which will determine the over-all feasible scope of the census.

3.4. In making the selection of topics, due regard should be paid to the usefulness of historical continuity in providing the opportunity for a comparison of changes over time. Census-takers should, however, avoid collecting information no longer required simply because it was traditionally collected in the past. It becomes necessary, therefore, to review periodically the topics traditionally investigated and to re-evaluate the need for the series to which they contribute.

1. Priority of national needs

3.5. Prime importance should be given to the fact that housing censuses should be designed to meet national needs. Should any conflict exist among national needs, regional recommendations and global recommendations, national needs should take precedence followed by the regional recommendations and finally the global

recommendations. The first consideration is that the census should provide information on the topics of greatest value to the country, with questions framed in such a way as to elicit data of maximum use to that country. Experience has shown that national needs will be best served if the census includes topics generally recognized as of basic value and defined in accordance with regional and global standards.

3.6. It is recognized that many countries will find it necessary to include in the census topics of national or local interest in addition to the topics included in the recommendations, and that the census data may need to be supplemented by housing surveys in order to obtain information on topics which cannot be included in the census either because they would overburden the enumerator or because they require specially trained enumerators. It is also possible that some countries may omit from the census certain recommended topics because it can be assumed with a high degree of confidence that a particular facility, such as electricity for example, is available in virtually all living quarters in the country. Conversely, some topics may not be investigated because of the almost total absence of certain facilities, particularly in the rural areas of some developing countries.

2. Importance of international comparability

3.7. The desirability of achieving regional and world-wide comparability should be another major consideration in the selection and formulation of topics for the census schedule. National and international objectives are usually compatible, however, since international recommendations, being based on a broad study of country experience and practice, are recommendations of definitions and methods which have successfully met general national needs.

3.8. If the particular circumstances within a country necessitate departures from international standards, every effort should be made to explain these departures in the census publications and to indicate how the national presentation can be adapted to the international standards.

3. Suitability of topics

3.9. The topics investigated should be such that the respondents will be willing and able to provide adequate information on them. Those for which information is to be obtained through direct observation by the enumerator should be within his or her technical competence. Thus, it may be necessary to avoid topics which are likely to arouse fear, local prejudice or superstition, and questions which are too complicated and difficult for the average respondent or the enumerator to answer easily. The exact phrasing for each question that is needed in order to obtain the most reliable responses will of necessity depend on national circumstances.

4. Resources available

3.10. The selection of topics should be carefully considered in relation to the total resources available for the census. An accurate and efficient collection of data for a limited number of topics, followed by prompt tabulation and publication, is more useful than the collection of data for an over-ambitious list of topics, which cannot properly be investigated, tabulated or stored in the data base. In balancing the need for data against resources available, the

extent to which questions can be pre-coded should be considered. This may be an important factor in determining whether or not it is economically feasible to investigate certain topics in the census.

B. List of topics

3.11. The housing topics included in the following lists have emerged as a result of meetings convened by the regional commissions and the Inter-American Statistical Institute for revising their respective regional recommendations for population and housing censuses. Based on these meetings, five sets of regional recommendations have been formulated. ^{58/} The criteria observed for the selection of topics in the present recommendations are as follows:

List D: Topics included as "basic" in at least three regional programmes for housing censuses, which therefore represent a broad international consensus with respect to their importance;

List E: Topics included as "basic" or "other useful" in at least three regional programmes for housing censuses and not included in list D;

List F (shown in annex III below): Topics not included in list D or list E, which are included as "basic" or "other useful" in at least one regional programme for housing censuses.

3.12. Lists D and E, compiled on the basis of the above criteria, are shown in paragraph 3.15 below.

3.13. It may be noted that list D consists of all topics included as "recommended" in the 1970 recommendations plus "year or period of construction", "ownership", "bathing facilities" and "cooking facilities", all of which were previously included as "other useful" topics. The topics included in list D are those required for the tabulations most urgently needed for the measurement and evaluation of housing conditions and for the formulation of housing programmes (see para. 3.122 below); a study of housing census experience indicates the feasibility of collecting information on these topics by means of housing censuses. Those that are likely to present difficulties and require time-consuming questioning can probably best be investigated for a sample of living quarters.

3.14. List E includes only "rental", which may be investigated in accordance with regional needs; it was previously included among the "other useful" topics in

^{58/} Economic Commission for Europe, Recommendations for the 1980 Censuses of Population and Housing in the ECE Region, Statistical Standards and Studies, No. 31 (United Nations publication, Sales No. E.78.II.E.6); Economic and Social Commission for Asia and the Pacific, "Asian and Pacific recommendations for the 1980 population and housing censuses" (ST/ESCAP/52); Inter-American Statistical Institute, Program of the 1980 Census of America (COTA-1980): Standards for the Population and Housing Censuses (IASI document 7357a - 3/16/78-25); Economic Commission for Africa, "Report of the Working Group on Recommendations for the 1980 Population and Housing Censuses in Africa" (E/CN.14/CPH/47); Economic Commission for Western Asia, Expert Group Meeting on Census Techniques, 12-16 December 1977, "Final report" (E/ECWA/POP/WG.9/2).

the 1970 recommendations. The remaining topics, which were previously in the "other useful" category ("number of bedrooms", plus "industry", "marital status" and "national and/or ethnic group" of household head) now appear in list F (see annex III below).

3.15. The topics included in lists D and E are shown below.

List D

Building in which living quarters are located - characteristics of

1. Building - type of (para. 3.17)
2. Construction material of outer walls (para. 3.25)
3. Year or period of construction (para. 3.28)

Living quarters - characteristics and facilities of

4. Location (para. 3.33)
5. Living quarters - type of (para. 3.41)
6. Occupancy status (para. 3.80)
7. Ownership - type of (para. 3.84)
8. Rooms - number of (para. 3.87)
9. Water supply system (para. 3.90)
10. Toilet facilities (para. 3.92)
11. Bathing facilities (para. 3.98)
12. Cooking facilities (para. 3.100)
13. Lighting - type of (para. 3.106)

Occupants of living quarters - number and characteristics of

14. Conjugal family nucleus (para. 3.107)
15. Demographic and economic characteristics of household head (para. 3.109)
 - Age (para. 3.110)
 - Sex (para. 3.110)
 - Type of activity (para. 3.110)
 - Occupation (para. 3.110)
16. Household (para. 3.111)
17. Occupants - number of (para. 3.115)
18. Tenure (para. 3.116)

List E

Rental (para. 3.119)

C. Definitions and specifications of topics (in numerical order)

3.16. Paragraphs 3.17-3.121 below contain the recommended definitions of the topics in lists D and E. It is important that census data be accompanied by the definitions used in carrying out the census. It is also important that any changes in definitions that might have been made since the previous census be indicated and, if possible, accompanied by estimates of the effect of such changes on the relevant data. In this way, users will not confuse valid changes over time with increases or decreases that have occurred as the result of changed definitions.

1. Building - type of

(a) Definition of building

3.17. A building is any independent free-standing structure comprising one or more rooms 59/ or other spaces, covered by a roof and usually enclosed within external walls or dividing walls 60/ which extend from the foundations to the roof. However, in tropical areas, a building may consist of a roof with supports only, that is, without constructed walls; in some cases, a roofless structure consisting of a space enclosed by walls may be considered a "building" (see also "compound", para. 3.24).

3.18. A building may be used or intended for residential, commercial or industrial purposes or for the provision of services. It may, therefore, be a factory, shop, detached dwelling, apartment building, warehouse, garage, barn and so forth. In some exceptional cases, facilities usually provided by a set of living quarters are located in two or more separate detached structures, as when a kitchen is in a separate structure. In the case of living quarters with detached rooms, these rooms should be considered as separate buildings. A building may, therefore, contain several sets of living quarters, as in an apartment building or duplex; it may be coextensive with a single detached set of living quarters, or it may be only part of a set of living quarters, e.g., living quarters with detached rooms, which are clearly intended to be used as part of the living quarters.

3.19. The concept of "building" should be clearly defined and the instructions for the housing census should indicate whether all buildings are to be listed and enumerated or only those used in whole or in part for residential purposes. Instructions should also indicate whether buildings under construction are to be recorded and, if so, at what stage of completion they are eligible for inclusion. Buildings being demolished or awaiting demolition should normally be excluded.

(b) Classification of buildings by type

3.20. The following classification by type is recommended for buildings in which some space is used for residential purposes:

(a) Buildings coextensive with a single housing unit:

(i) Detached;

(ii) Attached;

(b) Buildings containing more than one housing unit;

(c) Buildings for persons living in institutions;

(d) All others.

59/ For definition of "rooms", see para. 3.87.

60/ "Dividing walls" refer to the walls of adjoining buildings which have been constructed so that they are contiguous, e.g., dividing walls of "row" houses.

3.21. It should be noted that, for the purposes of the housing census, the above classification refers to the building in which the living quarters enumerated are located and that living quarters, not buildings, will be tabulated according to the classification.

3.22. Category (a) provides separate subgroupings for "detached" and "attached" buildings because, although most single-unit buildings are detached (a suburban house, a villa etc.), in some countries a substantial number may be attached (row houses, for example) and in such cases it may be useful to identify them as a separate group. Buildings containing more than one housing unit (category (b)) will usually be apartment buildings, but they may also be other types of buildings that are structurally subdivided so as to contain more than one housing unit (for example, a large dwelling which has been structurally converted into several apartments). Category (c), "Buildings for persons living in institutions", includes hospital buildings, prisons, military establishments etc. It should be noted that a structurally separate housing unit (a house or apartment intended for the occupancy of members of the institution's staff, for example), either within a building of the institution or detached but within the grounds, should be included in category (a) if the housing unit is coextensive with a building, in (b) if there is more than one housing unit in the building or in (c) if there is only one housing unit in the building but it is not coextensive with the building, i.e. if the building contains additional space used for the institutional population or for other purposes.

3.23. In addition to the above, and for subsequent analysis of housing conditions, each country will find it useful to provide for separate identification of special types of buildings which are characteristic of the country concerned. For example, categories such as "shop/dwelling" may be included if required and information may be sought on whether the building is wholly residential, partly residential, residential and commercial, mainly commercial and so forth.

(c) Compound

3.24. In some countries it may be appropriate to use the "compound" as a unit of enumeration. In some areas of the world, living quarters are traditionally located within compounds and the grouping of living quarters in this way may have certain economic and social implications which it would be useful to study. In such cases it may be appropriate, during the census, to identify compounds and to record information suitable for linking them to the living quarters located within them.

2. Construction material of outer walls

3.25. This topic refers to the construction material of the outer walls of the building in which the living quarters are located. If the walls are constructed of one or more materials, the predominant material should be reported. The types distinguished (brick, concrete, wood, adobe and so on) will depend upon the materials most frequently used in the country concerned and on their significance from the point of view of permanency of construction or assessment of durability.

3.26. In some countries the material used for the construction of roofs or of floors may be of special significance for the assessment of durability and, in such cases, it may be necessary to collect information on this as well as on the material of the walls. It should be remembered, however, that this may lead to

a somewhat complicated tabulation, since, for the correct interpretation of the data, the range of materials collected for each element of construction needs to be cross-classified with the material of any other elements that may have been included. For estimating replacement needs, these cross-classifications must then be related to a range of years of periods of construction.

3.27. While the material of construction is a useful addition to data collected on the type of living quarters, it should not be considered as a substitute for that information. Wood, for example, may be the material of a poorly constructed squatter's hut or of a durable and well-constructed dwelling. In these cases the type of unit adds significantly to the possibility of quality appraisal.

3. Year or period of construction

3.28. This topic refers to the age of the building in which the living quarters are located. It is recommended that the exact year be sought for buildings constructed during the intercensal period immediately preceding if it does not exceed 10 years. Where the intercensal period exceeds 10 years or where no previous census has been carried out, the exact year should be sought for buildings constructed during the preceding 10 years. For buildings constructed before that time, the information should be collected in periods that will provide a useful means of assessing the age of the housing stock. Difficulty may be experienced in collecting data on this topic because in some cases the occupants may not know the date of construction.

3.29. The collection of data for single years during the intercensal period is seen as a method of checking construction statistics for deficient coverage and of more closely integrating the housing census with current housing statistics.

3.30. The periods should be measured in terms of events that have some special significance in the country concerned, as for example since the Second World War; between the First World War and the Second World War; before the First World War. Three age groups may be considered as a minimum classification. The total period covered by the age groups and the number of groups distinguished will depend upon the materials and methods of construction used in the country concerned and the number of years that buildings normally last.

3.31. Where parts of buildings have been constructed at different times, the year or period of construction should refer to the major part. Where living quarters comprise more than one building (living quarters with detached rooms, for example) the age of the building which contains the major part of the living quarters should be recorded.

3.32. In countries where a significant number of households construct their own living quarters (countries with large non-monetary sectors, for example) it may be useful to include an additional question which will distinguish the living quarters according to whether or not they were constructed by the households occupying them. The information should refer only to living quarters constructed during the preceding intercensal or 10-year period, and it should be made clear in formulating the question that it refers to living quarters constructed mainly by households (with or without the help of other households in the community) and that it does not refer to construction executed by enterprises on behalf of households.

4. Location of living quarters (see also "living quarters and household listing")

3.33. A great deal of information relevant to the location of living quarters is contained under the definition of "locality" and "urban and rural" (see paras. 2.51-2.61). It is important for those concerned with carrying out housing censuses to study this information, because the geographical concepts used to describe the location of living quarters in carrying out a housing census are extremely important both for the execution of the census and for the subsequent tabulation of the census results. When the housing census is combined with, or closely related to, a population census, these concepts need to be carefully considered and co-ordinated so that the geographic areas recognized in carrying out the two censuses are of optimum value for both operations.

3.34. Information on location should be collected in sufficient detail to enable tabulations to be made for the smallest geographical subdivisions required by the tabulation plan. To satisfy the requirements of the geographical classifications recommended in the tabulations in chapter viii, information is needed on whether the living quarters are located in an urban or rural area, the major civil division, the minor civil division and, for living quarters located in principal localities, the name of the locality.

3.35. Where a permanent system of house or building numbers does not already exist, it is essential to establish a numbering system for the census so that the location of each set of living quarters can be adequately described. Similarly, in cases where streets do not have names or numbers properly displayed, such identification should be provided as one of the pre-census operations. Adequate identification provides the basis for the preparation of census control lists (see also "living quarters and household listing", paras. 1.91-1.92); it is required to monitor and control the enumeration, to identify living quarters for possible call-backs and for post-enumeration evaluation surveys as well as for other post-censal inquiries that use the census as a sampling frame or other point of departure. Ideally, each building or other inhabited structure should be provided with a number, as should each set of living quarters within buildings or structures. In preparing a census control listing, it is the practice to identify further each household within living quarters.

3.36. Living quarters that are not located in areas with a conventional pattern of streets, such as those in squatter areas or in some places not intended for habitation, may require special identification. Since it may not be possible to describe the location of these units in terms of a formal address, it may be necessary to describe them in terms of their proximity to natural or created landmarks of various kinds or in relation to buildings that are located in areas where a formal address is possible.

3.37. The various geographical designations which together define the location of living quarters are discussed below.

(a) Address

3.38. Information that describes the place where the living quarters are to be found and distinguishes them from other living quarters in the same locality falls within this category. As a rule the information includes the name or number of the street and the number of the living quarters; in the case of apartments, the building number and the apartment number are required.

(b) Locality

3.39. For the definition of "locality", see paragraphs 2.51-2.53.

(c) Urban and rural

3.40. For the definition of "urban and rural", see paragraphs 2.54-2.61.

5. Living quarters - type of

(a) Definition of living quarters

3.41. Living quarters are structurally separate and independent places of abode. They may (a) have been constructed, built, converted or arranged for human habitation, provided that they are not at the time of the census used wholly for other purposes and that, in the case of mobile housing units, improvised housing units and collective living quarters, they are occupied at the time of the census or (b) although not intended for habitation, actually be in use as such at the time of the census.

(i) Separateness and independence

3.42. The essential features of living quarters are separateness and independence. An enclosure may be considered as separate if surrounded by walls, fences etc. and covered by a roof so that a person or group of persons can isolate themselves from other persons in the community for the purposes of sleeping, preparing and taking their meals or protecting themselves from the hazards of climate and environment. Such an enclosure may be considered as independent when it has direct access from the street or from a public or communal staircase, passage, gallery or grounds, i.e. when the occupants can come in or go out of their living quarters without passing through anybody else's premises.

3.43. Attached rooms having an independent entrance, or detached rooms for habitation which have clearly been built, rebuilt, converted etc., to be used as a part of the living quarters should be counted as part of the living quarters. Thus, living quarters may be constituted by rooms or groups of rooms with independent entrances or by separate buildings.

(ii) Permanence

3.44. Living quarters may be permanent or semi-permanent buildings or parts of buildings intended for habitation, or natural shelters not intended for habitation but actually used as places of abode on the day or night established as the time-reference of the census.

(iii) Habitation

3.45. Living quarters originally intended for habitation and used wholly for other purposes at the time of the census should normally be excluded from the census coverage, while shelters not intended for habitation but occupied at the time of the census should be included. In some circumstances, it may be convenient to make a separate count for national purposes of the living quarters originally intended for habitation but used wholly for other purposes at the time of the census and vice versa. In such cases, specific instructions for the enumeration of these must be supplied.

(iv) Living quarters under construction, newly constructed, being demolished or awaiting demolition

3.46. Instructions should be issued so that it is clearly understood at what stage of completion living quarters should be included in the housing census. They may be included in the housing census as soon as construction has begun, at various stages of construction or when construction has been completed. Living quarters being demolished or awaiting demolition should normally be excluded. The system used should be consistent with that employed for the system of current statistics and it should avoid double counting where construction statistics are used to bring the census data up to date.

3.47. Special instructions will need to be issued concerning "core dwellings" in countries where these are provided as a preliminary phase of dwelling construction (for a discussion of core dwellings, see para. 3.58).

(b) Classification by structural type

3.48. The living quarters defined in paragraph 3.41 are either housing units or collective living quarters. Normally, the collection of information concerning housing units will be considered of first importance in a housing census, since it is in housing units that the bulk of the population permanently lives. Furthermore, housing units are intended for occupancy, or are occupied, by households, and it is with the provision of accommodation for households that housing programmes are mainly concerned. However, certain types of "collective living quarters" are also of significance with respect to the housing conditions of households; these include hotels, rooming houses and other lodging houses and camps occupied by households. Housing units should be classified so as to distinguish at least conventional dwellings from other types of housing units. It should be emphasized that without an adequate classification of living quarters no meaningful analysis of housing conditions based on housing census data is possible.

3.49. The classification outlined below and described more fully in paragraphs 3.51-3.79 and a system of three-digit codes have been designed to group in broad classes housing units and collective living quarters with similar structural characteristics. The distribution of occupants (population) among the various groups supplies valuable information about the housing accommodation available at the time of the census. The classification also affords a useful basis of stratification for sample surveys. The living quarters may be divided into the following categories:

1.0.0 Housing units (para. 3.52)

1.1.0 Conventional dwellings (para. 3.54)

1.2.0 Mobile housing units (para. 3.62)

1.3.0 Marginal housing units (para. 3.64)

1.3.1 Improvised housing units (para. 3.65)

1.3.2 Housing units in permanent buildings not intended for human habitation (para. 3.67)

1.3.3 Other premises not intended for human habitation (para. 3.69)

2.0.0 Collective living quarters (para. 3.70)

- 2.1.0 Hotels, rooming houses and other lodging houses (para. 3.73)
- 2.2.0 Institutions (para. 3.74)
- 2.3.0 Camps (para. 3.75)
- 2.4.0 Other (para. 3.76)

3.50. Not all the categories in the above classification are of importance under all circumstances. For example, in some countries, certain of the groups may not need to be considered separately, while in others it will be convenient to subdivide them. However, some of the categories are of special significance for assessing the housing situation and should be distinguished even where a simplified classification is employed. Where the classification is reduced, conventional dwellings at least, should be indicated separately.

(c) Definitions of each type of living quarters

3.51. A description of the categories shown in paragraph 3.49 is given below.

(1.0.0) Housing unit

3.52. A housing unit is a separate and independent place of abode intended for habitation by one household, 61/, 62/ or one not intended for habitation but occupied as living quarters by a household at the time of the census. Thus it may be an occupied or vacant dwelling, an occupied mobile or improvised housing unit or any other place occupied as living quarters by a household at the time of the census. This category includes housing of various levels of permanency and acceptability and therefore requires further classification in order to provide for a meaningful assessment of housing conditions.

3.53. It should be noted that housing units on the grounds or within the buildings housing an institution, camp etc. should be separately identified and counted as housing units. For example, if, in the grounds of a hospital, there is a separate and independent house intended for the habitation of the director and his or her family, the house should be counted as a housing unit. In the same way, self-contained apartments located in hotel buildings should be counted as housing units if they have direct access to the street or to a common space within the building. Similar cases will need to be identified and described in the instructions for the enumeration.

(1.1.0) Conventional dwelling

3.54. A conventional dwelling is a room or suite of rooms and its accessories in a permanent building or structurally separated part thereof, which by the way it has been built, rebuilt or converted, is intended for habitation by one household and is not, at the time of the census, used wholly for other purposes. It should have a separate access to a street (direct or via a garden or grounds) or to a

61/ Although intended for habitation by one household, a housing unit may, at the time of the census, be occupied by one or more households or by a part of a household.

62/ For the definition of "household", see paras. 1.223-1.228, 2.62-2.64, 2.73-2.85 and 3.112.

common space within the building (staircase, passage, gallery and so on). Examples of dwellings are houses, flats, suites of rooms, apartments etc.

3.55. A permanent building is understood to be a structure that may be expected to maintain its stability for 10 years or more. It is recognized that the criterion of permanency or durability is difficult for the census enumerators to apply and that its adaptation to local conditions would require considerable study and experimentation by the national offices with respect to the significance of materials and methods of construction. In some cases, it may be of greater significance nationally to apply the criteria of construction material and method of construction directly in order to establish whether or not the building containing the housing unit is of permanent construction rather than translating these criteria into a time-period.

3.56. It may be noted that the terms dwelling, dwelling unit, dwelling house, residential dwelling unit, family dwelling, house, logement, vivienda, unidad de vivienda and so forth have been used indiscriminately to refer to living quarters of any type. The term "dwelling" is here limited to a housing unit located in a permanent building and designed for occupancy by one household. Although a dwelling is a housing unit intended - i.e. constructed or converted - for habitation by one household it may, at the time of the census, be vacant or occupied by one or more households or by a part of a household.

3.57. Some dwellings do not fully comply with the definition. As already noted (para. 3.50) it may be necessary under some circumstances to expand the recommended classification of housing units. Such instances may arise in countries where a certain proportion of the housing inventory comprises housing units that possess some of the characteristics attributed to dwellings but fall short of the definition in certain respects. For example, in some countries "core" or "nuclear" dwellings around which a dwelling will eventually be constructed are provided as part of the housing programmes. In others, a significant proportion of the housing inventory is composed of dwellings that are constructed, by traditional methods, of locally available crude materials and may be less permanent than dwellings of more conventional construction and technically improved materials. Because of the prevalence of core dwellings and semi-permanent dwellings, they are discussed separately below.

3.58. Core dwellings. Many countries with insufficient resources to meet their housing needs have attempted to alleviate the housing conditions of the population living in squatter areas by providing core or nuclear dwellings. Under these programmes the households move their improvised shacks from the squatter area to a new location, the idea being that gradually, and generally with government assistance of one kind or another, the households with core or nuclear dwellings will add to the nucleus until they can abandon their shacks entirely.

3.59. A core dwelling is sometimes only a sanitary unit containing bathing and toilet facilities, to which may be added, in subsequent phases, the other elements that will finally comprise the completed dwelling. Such units do not fall within the definition of dwelling set forth in paragraph 3.54. Obviously, however, although the household continues to occupy its original shelter (which would probably be classified as an "improvised housing unit") its housing situation is a vast improvement over that of households remaining in the squatter areas and the provision of the cores is a significant step towards the alleviation of housing shortages.

3.60. The problem is, therefore, one of reflecting in the statistics the improvements brought about by programmes such as those described above without distorting the data that refer to fully constructed conventional dwellings. It is recommended, therefore, that core dwellings should be counted as dwellings in the census if at least one room, ^{63/} in addition to the sanitary facilities, is completed and also that those that have not reached this stage of completion should be recorded as cores. Arrangements should be made so that the facilities available in the core can be related during data processing to the households for whose use they have been provided.

3.61. Semi-permanent dwellings. Some countries will wish to give particular attention to conventional dwellings that have been constructed or erected with locally available crude materials such as bamboo, palm, straw or any similar vegetable materials. Such units often have mud walls, thatched roofs etc., and may be expected to last for only a limited time (from a few months to 10 years), although occasionally they may last for longer periods. This category is intended to cover housing units that are typical and traditional in many tropical rural areas. They normally correspond to a certain stage of cultural development, and in some countries they are of special significance for large sectors of the population. Such units may be known as cabins, ranchos or bohíos (Latin America), barastis (Bahrain), barong barong (Philippines) etc.

(1.2.0) Mobile housing units

3.62. A mobile housing unit is any type of living accommodation that has been made to be transported (such as a tent) or is a moving unit (such as a ship, boat, barge, vessel, railroad car, caravan, trailer, yacht etc.) occupied as living quarters at the time of the census. Trailers and bedouin tents used as permanent living quarters are of special interest.

3.63. Although mobile housing units are significantly different from other housing units in that they can be readily moved or transported, mobility in itself is not necessarily a measure of quality. For the assessment of housing conditions in countries with a substantial number of mobile units, it may be useful to classify them further as tents, wagons, boats, trailers etc.

(1.3.0) Marginal housing units

3.64. Marginal housing units comprise three subgroups, namely, "improvised housing units", "housing units in permanent buildings not intended for human habitation" and "other premises not intended for human habitation". These units are characterized by the fact that they are either makeshift shelters constructed of waste materials and generally considered unfit for habitation (squatters' huts, for example) or places that are not intended for human habitation although in use for the purpose at the time of the census (barns, warehouses, natural shelters etc.). Under almost all circumstances such places of abode represent unacceptable housing and they may be usefully grouped together in order to analyse the housing conditions of the population and for the purpose of estimating housing needs. Each subgroup is defined below.

^{63/} For the definition of "room", see para. 3.87.

(1.3.1) Improvised housing units

3.65. An improvised housing unit is an independent, makeshift shelter or structure built of waste materials and without a predetermined plan, for the purpose of habitation by one household, which is being used as living quarters at the time of the census. Included in this category are squatters' huts, poblaciones callampas (Chile), hongos (Peru), favelas (Brazil), sarifas (Iraq), jhuggis (India and Pakistan), gubuks (Indonesia), gecekondula (Turkey) and any similar premises arranged and used as living quarters though they may not comply with generally accepted standards for habitation. This type of housing unit is usually found in urban and suburban areas, particularly at the peripheries of the principal cities.

3.66. There is a wide variation in the procedures and criteria used in classifying these units. There are many borderline cases, and countries will need to make decisions and issue detailed instructions on how to enumerate and classify improvised housing units.

(1.3.2) Housing units in permanent buildings not intended for human habitation

3.67. Included in this category are housing units (in permanent buildings) that have not been built, constructed, converted or arranged for human habitation but which are actually in use as living quarters at the time of the census. These include housing units in stables, barns, mills, garages, warehouses, offices, booths and so forth.

3.68. Premises that have been converted for human habitation, although not initially designed or constructed for this purpose, should not be included in this category.

(1.3.3) Other premises not intended for human habitation

3.69. This category refers to living quarters that are not intended for human habitation or located in permanent buildings but are nevertheless used as living quarters at the time of the census. Caves and other natural shelters fall within this category.

(2.0.0) Collective living quarters

3.70. "Collective living quarters" include structurally separate and independent places of abode intended for habitation by large groups of individuals or several households and occupied at the time of the census. Such quarters usually have certain common facilities, such as cooking and toilet installations, baths, lounge rooms or dormitories, which are shared by the occupants. As indicated in paragraph 3.48 they may be further classified into hotels, rooming houses and other lodging houses, institutions and camps.

3.71. As noted in paragraph 3.53, housing units on the grounds or within the building housing an institution, camp, hotel etc. should be separately identified and counted as housing units.

3.72. The criteria established for the identification of collective living quarters are not always easy to apply and it is sometimes difficult for an enumerator to decide whether living quarters should be classified as a housing unit or not. This is particularly true in the case of buildings occupied by a number of households. The enumerator should be given clear instructions as to when the premises occupied by a group of people living together are to be considered as a housing unit and when as collective living quarters.

(2.1.0) Hotels, rooming houses and other lodging houses

3.73. This group comprises permanent structures which provide lodging on a fee basis and in which the number of boarders or lodgers exceeds five. Hotels, motels, inns, boarding houses, pensions, lodging houses etc. fall within this category.

(2.2.0) Institutions

3.74. This group covers any set of premises in a permanent structure or structures designed to house groups (usually large) of persons who are bound by either a common public objective or a common personal interest. In this type of living quarters, persons of the same sex frequently share dormitories. Hospitals, military barracks, boarding schools, convents, prisons etc. fall within this category.

(2.3.0) Camps

3.75. Camps are sets of premises originally intended for the temporary accommodation of persons with common activities or interests. Included in this category are military camps, refugee camps and camps established for the housing of workers in mining, agriculture, public works or other types of enterprises.

(2.4.0) Other

3.76. This is a residual category for living quarters which may not conform to the definitions of those included in groups 2.1.0 through 2.3.0. It should be used only when the number of units in question is small. Where the number is substantial it should be possible to include in separate groups the living quarters having characteristics that are similar and also of significance for an appraisal of housing conditions.

3.77. In some countries it seems that certain types of multihousehold living quarters have emerged in response to the particular needs of the population and that the characteristics of these quarters enable them to be readily identified by an enumerator. It may be useful in these countries to provide a separate subgroup for any such special types. An example of such a subgroup - multihousehold living quarters (living quarters intended for habitation by more than one household) - includes buildings and enclosures intended for communal habitation by several households.

3.78. In this example, structurally separate and independent living quarters for occupancy by individual households are not provided. This category would include housing arrangements peculiar to certain countries, such as the "long house" (Sarawak) and the Kibbutz (Israel).

3.79. It should be noted that the living quarters to be included in this category are those intended for communal habitation by several households, i.e., constructed or converted for this purpose. Housing units intended for occupancy by one household, but which at the time of the census are occupied by several households, are not to be included because this obscures the identification of households doubled up in dwellings (an important element in estimating housing needs). It is suggested that, in carrying out the census, a strict distinction be maintained between housing units occupied by more than one household and living quarters constructed or converted for communal habitation by several households.

6. Occupancy status

3.80. Information should be obtained for each conventional dwelling to show whether the dwelling is occupied or vacant at the time of the census. For vacant units intended for year-round occupancy the type of vacancy (for rent, for sale etc.) should be reported. Occupancy status applies only to conventional dwellings, since all other living quarters are required by definition to be occupied in order to fall within the scope of the census.

3.81. The enumeration of vacant units is likely to pose difficult problems; but at least a total count should be made for purposes of controlling the enumeration and for the reasons stated under the uses of tabulation H8 (chap. VIII). The type of vacancy is frequently indicated by "for sale" or "for rent" signs posted on the dwelling. Although it may not be feasible to investigate all of the topics included in the census for vacant units, as much information as possible should be collected, including information on whether the living quarters are seasonally or non-seasonally vacant.

3.82. Vacant units intended for seasonal occupancy may represent a substantial proportion of the housing inventory in resort areas and in areas where large numbers of seasonal workers are employed. The separate identification of such a category may be necessary for the correct interpretation of the over-all vacancy rate as well as for an evaluation of the housing situation in the area concerned. Vacant units may be further distinguished according to the type of occupancy for which they are intended, for example, "holiday home", "seasonal workers' quarters" and so forth.

3.83. Whether living quarters whose occupants are temporarily absent or temporarily present should be recorded as occupied or vacant will need to be considered in relation to whether a de jure or de facto population census is being carried out. In either case it would seem useful to distinguish as far as possible living quarters that are used as a second residence. This would be particularly important where the second residence has markedly different characteristics from the primary residence, as would be the case, for example, where agricultural households move from their permanent living quarters in a village to rudimentary structures located on agricultural holdings during certain seasons of the year.

7. Ownership - type of

3.34. This topic refers to the type of ownership of the living quarters themselves and not that of the land on which the living quarters stand. Type of ownership should not be confused with tenure, which is discussed in paragraphs 3.116-3.118. Information should be obtained to show:

(a) Whether the living quarters are owned by the public sector (central government, local government, public corporations);

(b) Whether the living quarters are privately owned (by households, private corporations, co-operatives, housing associations etc.). The question is sometimes expanded to show whether the living quarters are fully paid for, being purchased in instalments or mortgaged.

3.85. As a minimum, the information on ownership may be classified into two main groups, i.e., "public ownership" and "private ownership". Depending upon the prevalence of various types of ownership and their significance with respect to housing conditions and the formulation of housing programmes, it may be useful to introduce some of the subgroups shown. The categories used should be consistent with those employed in the system of national accounts of the country concerned and in accordance with the recommendations contained in A System of National Accounts. 64/

3.86. It has been observed that the collection of information on type of ownership in a general census may be hampered by the fact that the occupants may not know who is the owner of the property and the owners or their representatives may be situated outside the enumeration zone. Furthermore, there are numerous cases of borderline and mixed ownership, which make the topic difficult for nation-wide enumeration. This is one of the topics for which more accurate information might be obtained through a housing survey.

8. Rooms - number of

3.87. A room is defined as a space in a housing unit or other living quarters enclosed by walls reaching from the floor to the ceiling or roof covering, or at least to a height of 2 metres, of a size large enough to hold a bed for an adult, that is, at least 4 square metres. The total number of rooms, therefore, includes bedrooms, dining-rooms, living-rooms, studies, habitable attics, servants' rooms, kitchens, rooms used for professional or business purposes and other separate spaces used or intended for dwelling purposes, so long as they meet the criteria of walls and floor space. Passageways, verandahs, lobbies, bath-rooms, and toilet rooms should not be counted as rooms, even if they meet the criteria. Separate information may be collected for national purposes on spaces of less than 4 square metres that conform in other respects to the definition of room if it is considered that their number warrants such a procedure.

3.88. In counting the number of rooms, those used only for professional or business purposes should not be included. If they are counted, they should be included in calculating the number of rooms in living quarters but not in

64/ United Nations publication, Sales No. E.69.XVII.3.

calculating the number of persons per room. This procedure permits density levels to be studied according to the number of rooms available for living purposes in relation to the number of occupants. In any event, each country should indicate the procedure that has been followed.

3.89. It is recommended in paragraph 3.87 that kitchens be included in the count of rooms provided they meet the criteria of walls and floor space. Kitchens or kitchenettes that are smaller than 4 square metres or that have other characteristics which disqualify them should be excluded. For national purposes, countries may wish to identify and count kitchens as a separate group of rooms that may be analysed with respect to size and utilization, and to identify separately those used exclusively for cooking.

9. Water supply system

3.90. The basic information to be obtained in the census is whether the living quarters have or have not a piped-water installation, i.e., whether or not water is laid on to the living quarters by pipes from a community-wide system or an individual installation, such as a pressure tank, pump, etc. It is necessary to indicate also whether the living quarters have a tap inside or, if not, whether it is within a certain distance (100 metres) from the door. The following categories are recommended:

(a) Living quarters with piped water inside;

(b) Living quarters with piped water outside but within 100 metres of the living quarters;

(c) Living quarters without piped water (including piped water beyond 100 metres from the living quarters).

The living quarters may be further classified according to the source of the water available (community-wide system, tank, public well, private well, river, spring).

3.91. The most significant information from a health point of view is whether the living quarters have piped water within the premises. However, a category may be added to distinguish cases where the piped water supply is not in the living quarters but is within the building in which the living quarters are situated. It may also be useful to collect information that would show whether the water supply is for the sole use of the occupants of the living quarters being enumerated or whether it is for the use of the occupants of several sets of living quarters. Additional information may be sought on the availability of hot as well as cold water and on the kind of equipment used for heating water.

10. Toilet facilities

3.92. A toilet may be defined as an installation for the disposal of human excreta. A flush toilet is an installation connected with piped water, arranged for humans to discharge their wastes and from which the wastes are flushed by water.

3.93. As a minimum, information should be obtained to show:

(a) Whether the living quarters being enumerated have a toilet intended for the exclusive use of the occupants and, if so, whether it is a flush toilet or a non-flush toilet;

(b) If the living quarters have no toilet of any kind.

Whether the toilet is situated inside or outside the living quarters is of varying significance according to the type being considered.

3.94. For living quarters reported as having a toilet, additional information may be sought to indicate whether the toilet is used exclusively by the occupants of the living quarters being enumerated or whether it is shared with the occupants of other living quarters. For living quarters reported as having no toilet, it would be useful to know whether the occupants have the use of a communal facility and the type of facility; whether they use the toilet of other living quarters and the type, or whether there is no toilet of any kind available for the use of the occupants.

3.95. Some countries have found it useful to expand the classification for non-flush toilets to distinguish certain types that are widely used and indicate a certain level of sanitation.

3.96. For housing units occupied by more than a certain number of households (more than two, for example) and for collective living quarters, particularly those of the multihousehold and hotel/boarded house type, it may be useful to gather information on the number and type of toilets available to the occupants. Such living quarters are usually equipped with multifacilities for the use of large groups and information on the number and type of toilets in relation to the number of occupants would be significant in analysing housing conditions.

3.97. Information may also be collected to show the sewage system used for disposal of human excreta. Information required is as follows:

(a) Whether the toilet empties into a community sewerage system and the type of system (piped system, open ditch);

(b) Whether the toilet empties into an individual system and the type of system (septic tank, cesspool, pit);

(c) Whether some other system is used (for example, toilets draining directly into lakes or rivers).

11. Bathing facilities

3.98. Information should be obtained on whether or not there is a fixed bath or shower installation within the premises of each set of living quarters. Additional information may be collected to show whether or not the facilities are for the exclusive use of the occupants of the living quarters and whether there is a supply of hot water for bathing purposes or cold water only. In some areas of the world the distinction proposed above may not be the most appropriate for national needs. It may be important, for example, to distinguish between the availability of a separate room for bathing in the living quarters, a separate room for bathing in the building, an open cubicle for bathing in the building and a public bath house.

3.99. For housing units occupied by more than a certain number of households (more than two, for example) and, for collective living quarters, particularly

those of the multihousehold and hotel/boarded house type, it may be useful to gather information on the number of fixed baths or showers available to the occupants. Such living quarters are usually equipped with multifacilities for the use of large groups and information on the number of fixed baths or showers in relation to the number of occupants would be significant in analysing housing conditions.

12. Cooking facilities

3.100. Information should be obtained on whether the living quarters have a kitchen, whether some other space is set aside for cooking such as a kitchenette or whether there is no special place set aside for cooking.

3.101. A kitchen is defined as a space which conforms in all respects to a "room" as defined in paragraph 3.87, is equipped for the preparation of the principal meals and is intended primarily for that purpose.

3.102. Other space reserved for cooking falls short of the attributes of a "room" as defined in paragraph 3.87, although equipped for the preparation of the principal meals and intended primarily for that purpose such as a kitchenette.

3.103. The collection of data on the availability of a kitchen may provide a convenient opportunity to gather information on the kind of equipment used for cooking such as a stove, hot plate, open fire etc.

3.104. Some countries have found it necessary to investigate the kind of fuel used for cooking. The data collected may refer to electricity, gas, oil, wood etc., depending upon the country; they may refer to the fuel most frequently used and to the fuel used for preparing the principal meals. It may be noted that the question on the number of rooms (para. 3.87) may provide a convenient opportunity to collect information on kitchen and kitchenette where such information is desired. Additional information may be collected to show whether the facilities are for the exclusive use of the occupants of the living quarters.

3.105. For housing units occupied by more than a certain number of households (more than two, for example) and for collective living quarters, particularly those of the multihousehold and hotel/boarded house type, it may be useful to gather information on the number of kitchens available for the occupants. Such living quarters are usually equipped with multifacilities for the use of large groups, and information on the number of kitchens or kitchenettes in relation to the number of occupants would be significant in analysing housing conditions.

13. Lighting - type of

3.106. Information should be collected on the type of lighting in the living quarters, such as electricity, gas, oil lamp and so forth. If the lighting is by electricity, some countries may wish to collect information showing whether the electricity comes from a community supply, generating plant or some other source (industrial plant, mine etc.).

14. Conjugal family nucleus

3.107. For the definition of conjugal family nucleus, 65/ see paragraph 2.80.

65/ The term "family nucleus" used in the remainder of the present document is to be taken to mean "conjugal family nucleus".

3.108. Family nuclei are usually identified at the processing stage from information on name and relationship of household members to the household head, which are normally available from the population census. Where the data are not available from the census of population or where the census of housing is carried out independently of the census of population, it may be sufficient, for purposes of estimating housing needs, to simply identify and record the number of married couples within each household.

15. Demographic and economic characteristics of the head of the household

3.109. From the topics recommended for inclusion in the population census, those in paragraph 3.110 have been selected as being of most significance in relation to housing conditions; they are defined and fully described in paragraphs 2.87-2.96 and 2.188-2.201. For the housing census, the data usually relate only to the head of the household, although in some cases (for a detailed study of overcrowding, for example) it may be necessary to tabulate information (age and sex, in this instance) for the other members of the household.

3.110. In some cases, the characteristics of the person identified as the head of the household might not be of significance in connexion with the housing conditions of the household. To provide a basis for valid assumptions concerning this relationship, the circumstances likely to affect it should be carefully considered and provided for in carrying out census tests and in analysing the results of these tests. Post-enumeration evaluation surveys will provide a further opportunity to examine the relationship between those identified as heads of households and the housing conditions of the household in question.

(a) Age. For the definition of age, see paragraphs 2.88-2.96;

(b) Sex. For the definition of sex, see paragraph 2.87;

(c) Type of activity. For the definition of type of activity, see paragraphs 2.188-2.197;

(d) Occupation. For the definition of occupation, see paragraphs 2.198-2.201.

16. Household

3.111. For the definitions of household, household head and persons living in institutions, see paragraphs 2.62-2.85.

3.112. For the purpose of a housing census, each household must be identified separately. With respect to housing programmes, the use of separate concepts of household and living quarters in carrying out housing censuses permits the identification of the persons or groups of persons in need of separate dwellings. If the household is defined as a group of persons occupying a set of living quarters, the number of households in living quarters and the number of occupied living quarters will always be equal and there will be no apparent housing need in terms of doubled-up households requiring separate living quarters. If living quarters are defined as the space occupied by a household, the number of households in living quarters will again be equal to the number of living quarters, with the added disadvantage that there will be no record of the number of structurally separate living quarters.

3.113. In countries in which it is traditional to count families, the family in the broad sense of the term may be adopted as an additional unit of enumeration: in the great majority of cases the composition of this unit will coincide with that of the household.

3.114. A household, for housing census purposes, should be defined in the same way as for population censuses.

17. Occupants -- number of

3.115. Each person usually resident in a housing unit or other living quarters should be counted as an occupant. However, since housing censuses are usually carried out simultaneously with population censuses, the applicability of this definition depends upon whether the information collected and recorded for each person in the population census indicates where he or she was on the day of the census or whether it refers to the usual residence (see paras. 2.21-2.25). Care should be exercised to distinguish persons occupying mobile units, such as boats, caravans and trailers, as living quarters from persons using these as a means of transportation.

18. Tenure

3.116. Tenure refers to the arrangements under which the household occupies its living quarters. Information should be obtained on:

- (a) Whether a member of the household is the owner of the living quarters;
- (b) Whether the household rents the living quarters as the main tenant;
- (c) Whether the household rents part of the living quarters as a subtenant from another occupant who is the main tenant or owner-occupant;
- (d) Whether the household occupies the living quarters under another form of tenure.

Particular attention needs to be given to persons who occupy premises free from cash rent, with or without the permission of the owner, especially where this is prevalent.

3.117. The question of tenure needs to be clearly distinguished in the questionnaire as one to be asked of all households; otherwise there is a danger that it may be omitted in cases where more than one household occupies a single housing unit. Tenure information collected for living quarters shows very clearly the distinction between rented units and units that are owner-occupied but it fails to distinguish the various forms of subtenancy that exist in many areas, which could be obtained from a question directed at households, 66/ nor does it

66/ Some indication of the number of households occupying their living quarters as subtenants could be obtained from a comparison of the number of living quarters of various types with the number of occupant households.

allow for an investigation of the relationship between tenure and socio-economic characteristics of heads of household. Under some circumstances, it may be useful to indicate separately households which, although not subtenants in the sense that they rent from another occupant who is a main tenant or owner-occupant, rent part of a housing unit from a landlord who lives elsewhere. These households and subtenant households may be of special significance in formulating housing programmes. On the contrary, in countries where subtenancy is not usual, information on subtenants may not be collected in the census or, if collected, may be tabulated only for selected areas.

3.118. In countries where the land and the living quarters are frequently occupied under separate tenure, the topic may be expanded to show separate information for the tenure under which the household or households occupy the living quarters and for the tenure of the land upon which they are located.

19. Rental

3.119. Rent is the amount paid periodically (weekly, monthly etc.) for the space occupied by a household. Information may be obtained on the basis of a scale of rents rather than on the exact amount paid. The data may be considered either in relation to household characteristics or in relation to the characteristics of living quarters. In the latter case, where more than one household occupies a single set of living quarters, the rents paid by all households would need to be summed to obtain the total rent for the living quarters. In the case of living quarters which are partly rented and partly owner-occupied, it may be necessary to impute the rent for the owner-occupied portion.

3.120. Provision must be made to indicate whether the living quarters covered by the rent are furnished or unfurnished and whether utilities such as gas, electricity, heat, water etc. are included. Provision also needs to be made for recording households which occupy their premises rent-free or pay only part of the economic rent. In countries where rent for the living quarters is paid separately from rent for the land upon which it stands, separate information may need to be collected reflecting the amount of ground-rent paid.

3.121. In addition to the amount of rent paid by renting households, it may be useful to collect information on the housing costs of the owner-occupants. Such costs could include information on monthly mortgage payments, taxes, cost of utilities etc.

VIII. TABULATIONS TO BE PREPARED IN HOUSING CENSUSES

A. Scope and objective of tabulations

3.122. As countries have turned to national planning as a means of promoting and guiding economic and social development the need for factual information on which to base the necessary programmes has become universally recognized. Resources are scarce, however, and statistical inquiries costly. It has therefore become increasingly necessary to weigh each tabulation proposed for inclusion in the census in terms of its ultimate cost and its utility for planning purposes and to restrict the number of topics to a bare but significant minimum for greater economy and efficiency. In preparing these recommendations, the first consideration, therefore, has been the selection of tabulations that would yield the data required most urgently for planning purposes.

3.123. The tabulations outlined in the present chapter include a group of tabulations identified "for early release". These are the tabulations for which the need is usually most urgent. However, it should be noted that the sequence in which the tabulations are produced also depends upon the over-all system of data processing and the way in which each tabulation fits into the system. It may not be economical under all circumstances to produce some of the tabulations marked "for early release" before others not so indicated. These considerations will require co-ordination with systems analysts responsible for planning the production of the tabulations.

3.124. Accompanying each tabulation is a statement of the principal uses of the data supplied by it and an illustrative sketch outline of the tabulation showing one way of providing for the required attribute classifications. It should be emphasized that the sketches are illustrative only; they are in no sense recommended formats for the tabulations, because these will depend on many other factors.

3.125. It may be noted that, for some tabulations, alternative units of tabulation are proposed. These alternative units are identified under "units of tabulation". Since the outline of the tabulation would remain unchanged irrespective of the unit of tabulation employed, only one illustration is shown. A box in the body of the illustration indicates the alternative units of tabulation that may be employed either in separate tabulations or combined in a single tabulation if this is considered more useful.

3.126. It is anticipated that most countries will publish more tabulations than are included here. With the almost universal use of modern computer equipment for the processing of census data, the time required for processing has been greatly reduced in comparison with older forms of processing and the processing cost of each tabulation and the relative cost of processing additional tabulations represent a much smaller fraction of the total census cost than in the past. As a result, collection restrictions, in terms of cost and of accuracy of the data that can be collected, and publication time and costs have a greater relative weight in determining the number and complexity of the tabulations that can be produced and published. The census tabulations outlined below employ the relatively small number of topics set forth in paragraph 3.15.

3.127. The tabulations recommended are appropriate as final tabulations. The extent to which advance provisional tabulations of the same subject-matter are prepared depends on the rapidity with which the processing can be done and the urgency of the need for the data.

3.128. The specifications for each tabulation include, inter alia, a geographical classification. This is intended to be a guide to the types of civil division of each country for which the information provided by the tabulation is generally needed. The full classification is (a) total country, (b) each major civil division, (c) each minor civil division, (d) each principal locality. An appropriate urban and rural distinction for (a), (b) and (c) is also indicated (see paras. 2.54-2.61).

3.129. Countries will undoubtedly wish to prepare at least some of the tabulations for additional areas, such as smaller civil divisions than are indicated, or other areas of economic or social significance. Another type of area for which tabulation is useful is the small subdivisions of principal localities known as "census tracts" (in English), which some countries have delineated for purposes of analysis of the census results.

3.130. However, in order to avoid producing tabulations which are overly voluminous or which contain a large number of empty cells, some countries may find it necessary to employ a more restricted geographic classification than that suggested in the illustrations. For example, even basic facilities such as piped water or electricity may be almost completely lacking for large areas of some countries. Under these circumstances, tabulation of the relevant data for small geographic areas would not be appropriate. The geographic classification to be utilized needs to be carefully considered taking into account the type of information being tabulated, its probable frequency distribution and the uses to which the data are likely to be put. Consultations with user groups both at the national and local levels may be helpful in determining the most suitable tabulation plan and method of dissemination.

3.131. Detailed tabulations may be prepared on a selective basis or upon request rather than for all geographic subdivisions of a particular country. For example, data for very small areas such as blocks or even block-faces may be stored and, upon request, made available. The areas for which it is feasible to show information will be affected by whether sampling was used in the collection of the information or at the tabulation stage.

3.132. The other principal classification common to many tables is that of living quarters and more particularly of housing units. As in the case of the geographic classification, the type of living quarters or housing units according to which data are to be tabulated will depend upon circumstances in the country concerned. For purposes of illustration, all of the recommended types are included in many of the tables. In practice, however, certain types may not be applicable in some countries or their number may be negligible. For example, the number of mobile or improvised housing units or housing units in buildings not intended for habitation may be either small or concentrated in only a few areas. Under these circumstances, if all types are included in the classification of housing units throughout the tabulation programme, many of the tables will have a large number of empty cells.

To avoid this it will be necessary to consider for each of the tabulations, to what extent the total classification of living quarters or housing units utilized in carrying out the census should be employed or to what extent the number of categories should be reduced. In this connexion, the data derived from tabulation H2 which provides basic information on the number and distribution of living quarters and their occupants, could provide the basis for a frequency analysis as an aid in deciding upon the detail in which ongoing tabulations should be prepared.

3.133. Tabulations H1, H2 and H4 should be obtained from a total universal enumeration and processing of all the living quarters in the area covered by the census. The other tabulations may be obtained on the basis of either the universal enumeration and tabulation of all living quarters and occupants or from the enumeration and/or tabulation of a representative sample.

3.134. The tabulations described below are in no sense presented as models of completed tables. The purpose is to present a view of the subject-matter elements desired as end products. In the presentation of results, various elements may be combined as parts of a single table according to the needs of each country, so long as the indicated categories and cross-classifications are made available.

B. List of tabulations

3.135. The following list gives the title of each tabulation in order to facilitate a summary appraisal of the scope of the programme. The detailed specifications for each tabulation are given immediately following the list.

Tabulation
number

Title

(An asterisk preceding the number of the tabulation indicates that it is a tabulation for early release, as explained in paragraph 2.225).

*H1	Households by broad types of living quarters and number of homeless households
*H2	Households occupying housing units by type of housing unit
*H3	Households in housing units by type of housing unit, cross-classified by type of household
H4	Households in collective living quarters by type of living quarters
*H5	Households by type of living quarters, cross-classified by sex and age of head of household
*H6	Households by type of living quarters, cross-classified by type of activity, occupation and sex of head of household
H7	Homeless households by sex and age of head of household, cross-classified by type of activity
H8	Vacant conventional dwellings by type of vacancy
*H9	Conventional dwellings by year (or period) of construction of building (in which dwelling is located), cross-classified by type of building and construction material of outer walls
H10	Conventional dwellings by number of dwellings in the building
*H11	Housing units by number of rooms, cross-classified by type of housing unit and number of occupants per housing unit
*H12	Households in housing units by type of housing unit occupied, cross-classified by number of households and number of rooms per housing unit
*H13	Living quarters by type, cross-classified by water supply system
H14	Living quarters by type, cross-classified by water supply system and source of water supply
*H15	Occupied living quarters by type, cross-classified by type of toilet facilities
*H16	Occupied housing units by type, cross-classified by type of lighting
*H17	Occupied housing units by type, cross-classified by availability and type of cooking facilities

Tabulation
number

Title

*H18	Occupied housing units by type, cross-classified by availability of bathing facilities
*H19	Households in housing units by type of housing unit, cross-classified by tenure of household and, for tenant households, ownership of housing unit occupied
H20	Households in housing units by type of housing unit, cross-classified by type of owner of the housing unit, availability of piped water and availability of toilet facilities in the housing unit
H21	Renting households in dwellings by rent paid, cross-classified by type of owner of the dwelling, furnished or unfurnished and tenure of the household
*H22	Renting households, classified by whether space occupied is furnished or unfurnished and amount of rent paid monthly by the household, cross-classified by type of housing unit and number of households in the housing unit
*H23	Rented housing units, classified by furnished or unfurnished and amount of rent paid monthly for the housing unit, cross-classified by type of housing unit and number of rooms
*H24	Rented housing units, classified by furnished or unfurnished and amount of rent paid monthly for the housing unit, cross-classified by availability of piped water and toilet facilities

C. Specifications for each tabulation

3.136. Each of the tabulations listed above is described in this section. The units of tabulation, the living quarters and the population to be included, the geographical classification and the attribute classifications are specified in each case. The paragraph reference numbers following each attribute classification correspond to the paragraphs in chapter VII where the respective topics are discussed. Under "Use of the tabulation", the principal uses of the data supplied by the tabulation are set forth. This is followed by an illustrative sketch outline of the tabulation.

H1. Households by broad types of living quarters and number of homeless households (for early release)

Units of tabulation:

- (a) This illustration: households
- (b) Alternative units of tabulation: living quarters; family nuclei; persons

Living quarters included: all living quarters (para. 3.41)

Households, family nuclei and persons included: all households and family nuclei and persons living in households (para. 3.111-3.114)

Classifications:

- (a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)
- (b) Type of living quarters (paras. 3.48-3.79): housing units; collective living quarters
- (c) Separate class for the homeless (para. 1.227)

Use of tabulations

This is a broad summary table designed to show in very general terms the type of housing occupied by households and the number of households that are homeless. It provides background information as well as a control for the preparation of more detailed tabulations for the categories shown. In fact, the magnitude of the number of households that occupy collective living quarters or are homeless and their geographical distribution provide an indication of the extent to which more detailed tabulations for these groups would need to be prepared.

The distinction between housing units and collective living quarters is significant because the problems involved and the methods of dealing with them are distinct. Collective living quarters generally do not come under the responsibility of the agency concerned with housing units, and housing programmes are directed for the most part towards the maintenance or improvement of the housing conditions of the population living in housing units. Information concerning the institutional population is not included in this tabulation but information on the number of these persons is available from the population census tabulation programme. Their exclusion from this tabulation facilitates the identification of persons in households occupying collective living quarters.

Illustration H1. Households by broad types of living quarters and number of homeless households (for early release)

Geographical division <u>a/</u> and unit of tabulation	Total households	Type of living quarters			Homeless
		Housing units	Collective living quarters	Not stated	
Total households					
<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>For illustrative purposes, households are shown as the units of tabulation in this outline. Similar tables should be prepared using as the unit of tabulation, living quarters, family nuclei and persons (see para. 3.125). Where "living quarters" is the unit of tabulation, the category for homeless would not be applicable.</p> </div>					

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

H2. Households occupying housing units by type of housing unit (for early release)

Units of tabulation:

(a) This illustration: households

(b) Alternative units of tabulation: living quarters; family nuclei; persons

Living quarters included: housing units (para. 3.52)

Households, family nuclei and persons included: households, family nuclei and persons occupying housing units (paras. 3.111-3.114)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).

(b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation

Use of tabulations

There is wide agreement concerning the usefulness of this tabulation or variants of it. Its most important function is to make a broad distinction between permanent housing of an acceptable standard, and makeshift, temporary or improvised housing and to describe the occupants in terms of aggregates, households and family nuclei.

The tabulation is of primary importance for the formulation of housing programmes and it is a prerequisite for the calculation of indicators of housing conditions as discussed in Social Indicators: Preliminary Guidelines and Illustrative Series. 67/

The distribution of persons according to the various types of housing units not only supplies valuable information about the housing accommodation available at the time of the census but affords a useful basis for stratification in carrying out sample surveys.

As noted in paragraph 3.50, the extent to which types of housing units are distinguished may vary according to the needs of the country concerned. It is recommended that all types identified in carrying out the census should be shown in this table. Information derived from the

67/ United Nations publication, Sales No. E.78.XVII.8, paras. 5.50-5.55 and annex IV.

table on the number and distribution of the various types and their occupants will be of assistance in deciding (a) which types should be utilized for tabulating housing units according to the various characteristics which are the subject of other tabulations and (b) the geographic areas for which these ongoing tabulations should be prepared.

For several reasons, the population in households is shown in terms of persons, households and family nuclei. Mention has already been made of Social Indicators; one of these indicators, "percentage of the population in living quarters other than conventional permanent or semi-permanent dwellings", requires for its calculation the population in terms of number of persons according to the type of accommodation occupied. This indicator measures changes in the housing situation as reflected by an increase or a decrease in the proportion of the population living in accommodation other than conventional dwellings.

For housing programmes, information is required not only as an indicator but for practical action and the number of housekeeping units or households that need to be provided with dwellings is required. The number of households according to the type of housing units occupied provides a first approximation of this element of housing needs.

Information on the average number of persons per household occupying each type of living quarters may be derived by comparing or combining the tabulations. As is well known, however, the size of households may be inflated as a result of a serious shortage of housing, and as additional dwellings become available, households tend to break up into smaller housekeeping units each requiring a separate dwelling. Good estimates of the extent to which this may occur can only be made as a result of special surveys, but a first approximation can be obtained by examining the extent to which households are composed of more than one family nucleus and the number of these families. ^{68/} The number of family nuclei included in the table may therefore be expected to yield data that will be useful in estimating the number of potential households and their size.

This tabulation includes all housing units without regard to occupancy but it should be noted that with the exception of dwellings (paras. 3.54-3.56), which may be either occupied or vacant, other housing units must be occupied in order to fall within the scope of the housing census.

^{68/} National customs, for example, the prevalence of the extended family system, must, of course, be taken into account.

Illustration H2. Households occupying housing units by type of housing unit (for early release)

Geographical division <u>a/</u> and unit of tabulation	Total house- holds	Type of housing unit <u>b/</u>					Not stated
		Dwelling	Mobile unit	Impro- vised unit	Not intended for habitation		
					Permanent	Other	
Total households . . .							
<div>For illustrative purposes, households in housing units are shown as the units of tabulation in this outline. Similar tables should be prepared using as the unit of tabulation housing units, family nuclei and persons in housing units (see para. 3.125)</div>							

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing unit to be included, see paras. 3.54-3.69.

H3. Households in housing units by type of housing unit, cross-classified by type of household (for early release)

Units of tabulation: households

Households included: households occupying housing units (para. 3.115)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation

(c) Type of household (para. 2.84): one-person household; nuclear household; extended household; composite household

Use of tabulations

This tabulation shows the type of household, as classified and defined in paragraph 2.64 according to the type of housing unit occupied. In itself, the tabulation provides useful insights into the housing patterns of the population. It could also be usefully combined with other tabulations to furnish a more detailed description of households in relation to certain aspects of housing, for example, in relation to characteristics of the head of household (tabulations H5 and H6), number of rooms occupied or the number of households occupying housing units (tabulation H12).

Illustration H3. Households in housing units by type of housing unit, cross-classified by type of household (for early release)

Geographical division <u>a/</u> and type of household	Total house- holds	Type of housing unit <u>b/</u>					
		Dwelling	Mobile unit	Impro- vised unit	Not intended for habitation		Not stated
					Permanent	Other	
Total households. . .							
Type of household:							
One-person							
Nuclear							
Extended							
Composite							
Not stated							

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing units to be included, see paras. 3.54-3.69.

II4. Households in collective living quarters by type of living quarters

Units of tabulation:

(a) This illustration: households

(b) Alternative units of tabulation: living quarters; family nuclei; persons

Living quarters included: collective living quarters (para. 3.70)

Households, family nuclei and persons included: households, family nuclei and persons occupying collective living quarters (paras. 3.111-3.114)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Type of collective living quarters (paras. 3.73-3.79): hotels, rooming houses and other lodging houses; institutions; camps; other

Use of tabulations

Whether or not this table is prepared may depend upon the information provided by tabulation H1, which shows the extent to which households occupy collective living quarters as well as the geographical distribution of such households. Based on this information, it can be decided whether a tabulation by type of collective living quarters is necessary, for what geographical areas it should be prepared and the cross-classifications and level of detail required.

Collective living quarters generally do not come under the responsibility of the agency responsible for housing units, and housing programmes are directed for the most part towards the maintenance or improvement of the housing conditions of the population living in housing units. However, under certain circumstances, some categories may be of special interest. For example, in countries with a significant number of refugees, the number of households living in camps may be of special interest, together with the demographic, economic and social characteristics of these households.

Some of the households occupying collective living quarters (households living in camps or families living in boarding houses, for example) may be considered in need of housing and their number may be used as a component of estimates of housing needs. In other cases (temporary work camps, for example) collective living quarters may provide housing which is appropriate for certain purposes.

Information concerning the institutional population is not included in this tabulation but information on the number of these persons is available from the population census tabulation programme. Their exclusion from this tabulation facilitates the identification of persons in households occupying collective living quarters.

Illustration H4. Households in collective living quarters by type of living quarters

Geographical division <u>a/</u> and unit of tabulation	Total households	Type of collective living quarters <u>b/</u>				
		Hotel etc.	Institution	Camp	Other	Not stated
Total households . . .						
<div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> For illustrative purposes, households in collective living quarters are shown as the units of tabulation in this outline. Similar tables could be prepared using as the unit of tabulation, collective living quarters, family nuclei or persons in collective living quarters (see para. 3.125). </div>						

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of collective living quarters to be included, see paras. 3.70-3.76.

H5. Households by type of living quarters, cross-classified by sex and age of head of household (for early release)

Units of tabulation:

- (a) This illustration: households
- (b) Alternative unit of tabulation: persons

Households and persons included: all households and persons living in households (para. 2.73)

Classifications:

- (a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).
- (b) Type of living quarters (paras. 3.48-3.79): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation; collective living quarters
- (c) Sex of head of household (para. 2.87): male; female
- (d) Age of head of household (paras. 2.88-2.96): under 15 years; 15-24 years; 25-44 years; 45-64 years; 65 years and over

Use of tabulations

Since, in almost all cases, housing censuses and population censuses are carried out as closely co-ordinated operations, it is assumed that the economic and demographic data required for housing tabulations will be obtained from the population census. The topics proposed are recommended for collection in population censuses and, provided that the housing and population censuses are properly co-ordinated, there should be no difficulty in relating them to the housing data.

In selecting the characteristics to be used, the primary consideration should be their efficiency in providing insight into the housing requirements of the population as well as an indication of the possibilities that exist for meeting these requirements in so far as private resources are concerned and the extent to which the nature of the problem merits public assistance. The age and sex of the heads of the households, together with the number of persons in these households distinguished according to the type of housing occupied will provide valuable insight in this respect. This tabulation also provides one component needed to compute headship rates specific for age and sex for the projection of number of households.

If the number of households occupying collective living quarters is large, it may be useful to prepare similar tabulations by type of collective living quarters.

Illustration H5. Households by type of living quarters, cross-classified by sex and age of head of household (for early release)

Geographical division <u>a/</u> and characteristics of head of household	Total house- holds	Type of living quarters <u>b/</u>							Collec- tive living quarters	Not stated
		Housing units								
		Total	Dwell- ing	Mobile unit	Impro- vised unit	Not intended for habitation				
Perma- nent	Other									
Total households										
Male head of household										
Under 15 years . . .										
15-24 years										
25-44 years										
45-64 years										
65 years and over .										
Not stated										
Female head of household										
(age groups as above)										

For illustrative purposes, households are shown as the units of tabulation in this outline. A similar table should be prepared using persons in households as the unit of tabulation (see para. 3.125).

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of living quarters to be included, see paras. 3.48-3.79.

H6. Households by type of living quarters, cross-classified by type of activity, occupation and sex of head of household (for early release)

Units of tabulation:

- (a) This illustration: households
- (b) Alternative unit of tabulation: persons

Households and persons included: all households and persons living in households (paras. 2.62-2.63)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).

(b) Type of living quarters (paras. 3.48-3.79): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation; collective living quarters.

(c) Occupation of head of household (paras. 2.198-2.201): according to or convertible to the major groups of the International Labour Organisation's International Standard Classification of Occupations, 1966

(d) Sex of head of household (para. 2.87): male; female

(e) Type of activity of head of household (paras. 2.188-2.197): economically active; (i) employed, (ii) unemployed; not economically active.

Use of tabulations

The relationships established in this tabulation provide data on the type of activity, occupation and sex of heads of households occupying each type of living quarters, together with the number of households and/or persons in each of the categories established. This tabulation attempts to isolate population groups in need of housing in terms of the occupation of the economically active heads of households and whether the head is employed or unemployed. In the absence of data on income, which is not normally available from the population census, this tabulation may provide at least a general indication of socio-economic level. For the purpose of this illustration only the total economically active heads of household by sex are shown according to whether they are employed or unemployed. Where the number of unemployed is substantial it may be useful to introduce a classification of employed/unemployed for each occupational group.

In addition to its significance from the point of view of the resources available to the head of the household, occupation may be of importance where the goal is to stimulate the development of certain

sectors of the economy. The International Labour Organisation (ILO) has recommended that special consideration should be given in national housing programmes, particularly in developing countries, to the housing needs of workers employed in, or required by, industries or regions which are of great national importance. In this connexion also, attention has been drawn by the ILO Asian Regional Conference to the provision of workers' housing as a means of raising the productive capacity of the economy. Where national plans are directed towards the development of certain key sectors of the economy, occupation may be of particular significance for determining priorities in meeting housing needs.

If the number of households occupying collective living quarters is large, it may be useful to prepare similar tabulations by type of collective living quarters.

Illustration H6. Households by type of living quarters, cross-classified by type of activity, occupation and sex of head of household (for early release)

Geographical division a/ and characteristics of head of household	Total house- holds	Type of living quarters b/							Collec- tive living quarters	Not stated
		Housing units								
		Total	Dwell- ing	Mobile unit	Impro- vised unit	Not intended for habitation				
						Perma- nent	Other			
Total households . . .										
Economically active head of household										
Employed										
Unemployed										
Male										
Employed										
Unemployed										
Female										
Employed										
Unemployed										
Occupation - major group 0/1										
Male										
Female										
Occupation - major group 2										
Male										
Female										
Occupation - major group										
Armed forces . . .										
/Occupation groups according to or con- vertible to the major groups of the <u>International</u> <u>Standard Classifi-</u> <u>cation of</u> <u>Occupations, 1968</u>										
Head of household not economically active										
Male										
Female										
Economic activity not stated										

For illustrative purposes, households are shown as the units of tabulation in this outline. A similar table should be prepared using persons in households as the units of tabulation (see para. 3.125).

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of living quarters to be included, see paras. 3.48-3.79.

H7. Homeless households by sex and age of head of household, cross-classified by type of activity

Units of tabulation:

- (a) This illustration: households
- (b) Alternative unit of tabulation: persons

Households and persons included: homeless households and persons (para. 1.227)

Classifications:

- (a) Geographical division (paras. 3.128-3.129): according to the needs of the country concerned
- (b) Sex of head of household (para. 2.87): male; female
- (c) Age of head of household (paras. 2.88-2.96): under 15 years; 15-24 years; 25-44 years; 45-64 years; 65 years and over
- (d) Type of activity of head of household (paras. 2.188-2.197): economically active; not economically active

Use of tabulations

Whether or not this tabulation is prepared may depend upon the information furnished by tabulation H1 on the number of homeless households and persons and their geographical location. This information provides a basis for deciding whether further tabulations of the homeless should be prepared, the most appropriate geographical areas for which the data should be tabulated and the household characteristics that should be included as well as the level of detail.

Homelessness may be an isolated phenomenon confined to certain large localities or it may be characteristic of certain areas that have been affected by wars, political turmoil or natural disasters. In any event the data represent a population group whose housing needs are of an emergency nature. By providing data on basic demographic characteristics and the general socio-economic level of household heads, this tabulation is intended to assist those responsible for providing solutions to the problem.

In this illustration the characteristics of the head of the household are limited to age, sex and type of activity. However, where the number of homeless persons is large, it may be useful to introduce additional characteristics such as marital status and occupation.

Illustration H7. Homeless households by sex and age of head of household,
cross-classified by type of activity

Geographical division <u>a/</u> and characteristics of head of household	Total	Homeless households											
		With male head						With female head					
		Total	Under 15 years	15-24 years	25-44 years	45-64 years	65 years and over	Total	Under 15 years	15-24 years	25-44 years	45-64 years	65 years and over
Total													
Economically active head of household . .													
Head of household not economically active													
Economic activity not stated													
<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>For illustrative purposes, homeless households are shown as the units of tabulation in this outline. A similar table could be prepared using homeless persons as the units of tabulation (see para. 3.125).</p> </div>													

a/ Geographical division according to the needs of the country concerned. See paras. 3.128-3.129.

H8. Vacant conventional dwellings by type of vacancy

Unit of tabulation: living quarters

Living quarters included: vacant conventional dwellings (paras. 3.54-3.61)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii).

(b) Type of vacancy (paras. 3.80-3.83): seasonally vacant; non-seasonally vacant (for rent; for sale; other)

Use of tabulations

Vacancy data are important from several points of view. In many countries the vacancy rate runs from 3 to 5 per cent of the housing inventory, which is equal to and, in some cases, a good deal more than, the number of dwellings produced annually by new construction. It seems appropriate, therefore, that the number of vacant units should be kept under careful surveillance in order to ensure that the stock of housing is used as fully and as economically as possible. The vacancy ratio provides an insight into the proportion of dwellings required to allow for a turnover of housing among owners and renters. This rate can be applied to calculations of housing needs in order to provide for a similar vacancy ratio in estimating the number of new dwellings that it will be necessary to construct.

Vacancy data classified according to the type of vacancy should furnish useful information concerning the availability of housing. For example, seasonally vacant dwellings can be ruled out as a source of additional permanent accommodation. These units may be further classified, however, to distinguish those intended for holiday accommodation from those intended for other seasonal accommodation such as that reserved for the use of seasonal or migrant workers. An examination of the reasons for vacancy of dwellings that are non-seasonally vacant may reveal an over-abundance in categories that do not correspond to the requirements or the resources of the population groups in need of housing (it may be noted that information on the size of vacant dwellings is available from tabulation H11). Corrective action may be taken in these circumstances either by restricting, directly or indirectly, the construction of the type of dwelling in question or by subsidizing the purchase or rental of dwellings.

This tabulation confines itself to data relating to dwellings because all other types of housing units are required, by definition, to be occupied in order to fall within the scope of the census; a classification by occupancy would not, therefore, be applicable to them.

In some housing censuses, vacancy information is recorded during the listing of living quarters and summaries of these lists provide the aggregates furnished by this tabulation, although generally not in detail as far as reasons for vacancy are concerned. Such a procedure may, however, provide an economic means of obtaining the data where there are important reasons to curtail the number of tabulations.

Illustration H8. Vacant conventional dwellings by
type of vacancy

Geographical division <u>a/</u> and unit of tabulation	Total dwellings	Type of vacancy				
		Seasonally vacant	Non-seasonally vacant			Not stated
			For rent	For sale	Other	
Total dwellings						

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii) (see paras. 3.128-3.129).

H9. Conventional dwellings by year (or period) of construction of building (in which dwelling is located), cross-classified by type of building and construction material of outer walls (for early release)

Unit of tabulation: living quarters

Living quarters included: conventional dwellings (paras. 3.54-3.61)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Construction material of outer walls (paras. 3.25-3.27): construction material of the walls (subclassified into types of construction material that are of significance for permanence and durability)

(c) Type of building (paras. 3.17-3.23): buildings coextensive with a single dwelling; buildings containing more than one dwelling; buildings for persons living in institutions; all others

(d) Year or period of building construction (paras. 3.28-3.32): single years for buildings constructed during the intercensal period immediately preceding (if it does not exceed 10 years) or during the preceding 10 years (where the intercensal period exceeds 10 years or where no previous census has been carried out); specified periods for buildings constructed prior to this

Use of tabulations

This tabulation provides information on the number of dwellings by type of building in which the dwelling is located and by material of construction of the walls of the building cross-classified by the year or period of construction of the building. The inventory considered in terms of age and type of building provides a basis for estimating maintenance costs; it also furnishes insight into the housing patterns of the population, a factor that experience has shown should not be neglected in formulating housing programmes. The data derived from this tabulation are of special importance for the formulation of housing programmes, since they provide the basis for appraising the dwelling inventory in terms of durability and expected rate of replacement and also provide the basis for an estimate of the annual rate of dwelling construction during the intercensal period or the preceding 10 years.

As is well known, construction data are difficult to collect and seriously lacking in most countries, particularly for the private sector, yet they are indispensable for determining the extent to which housing programmes are meeting the need for new dwellings. The construction data obtained may thus fill a serious gap in the series of statistics required for housing programmes. They may also provide a means of checking construction statistics for deficient coverage and of more closely integrating the housing census and current housing statistics.

Also lacking in most countries are estimates of the investment devoted to dwelling construction. If data can be provided that will reflect even approximately the rate of dwelling construction for a given period together with a broad description by type and material of construction (as provided by this tabulation), a reasonable estimate of housing investment should be possible. This is an important factor in assessing, and also in establishing, the role of housing in over-all plans for economic and social development.

If, as is suggested in paragraph 3.32, data have been collected that indicate separately living quarters that have been constructed by the households occupying them, then a separate category for this information would need to be provided in the classification. The information obtained may be used to provide estimates of the rate of dwelling construction attained and likely to be attained outside the construction carried out by enterprises or other organizations and of the resources being devoted to this type of dwelling construction. It should be noted, however, that the data would be incomplete, since they would not include all living quarters constructed by households but only those occupied at the time of the census by the households that had constructed them. Neither would the information take into account the rebuilding and renewal of dwellings, which is a continuing operation where dwelling construction is traditionally a household activity.

The tabulation also provides part of the data required for the computation of one of the statistical indicators of housing conditions, namely the "index of dwelling construction in relation to estimated requirements (for three-year periods)".

The question whether to include only conventional dwellings in the tabulation or other types of living quarters as well will depend upon the importance of the latter as far as the over-all housing situation is concerned. In tropical countries where a substantial proportion of the population lives in housing units constructed of locally available material such as bamboo, palm, thatch etc., information on the rate of construction of these units may be considered sufficiently important for them to be included. Mobile units, improvised units and units not intended for habitation are not included, because the year or period of construction is of varying significance depending upon the type of unit.

The tabulation includes material of construction for walls only, since this appears to be of most significance as an indicator of durability. Information on the construction material of the roof and floor is also frequently sought in housing censuses, particularly information on the former, but certain complications arise in tabulating construction material for more than one element of the dwelling. Therefore the classification is restricted to the type of material used in the construction of the outer walls.

The classification by type of building may be modified or expanded as the occasion demands. As is shown in paragraph 3.20, the category "buildings coextensive with a single housing unit" ("dwelling" in the present tabulation) may be divided into two subcategories, "detached" and

"attached". These subcategories may be included in the tabulation where it is considered that the number of attached buildings is significant. Also it may be found useful to introduce information on whether buildings are mainly residential or mainly non-residential or on the number of floors in the buildings, particularly with respect to apartment buildings.

In some countries, single years have been used over a longer period than that shown to tabulate information on the date of construction; however, it must be borne in mind that as the period is extended the quality of the data may be impaired.

Illustration H9. Conventional dwellings by year (or period) of construction of building (in which dwelling is located), cross-classified by type of building and construction material of outer walls (for early release)

Geographical division, <u>a/</u> type of building and construction material of walls	Total dwell- ings	Year or period of building construction															Not stated
		Year prior to census <u>b/</u>										Period <u>c/</u>					
		0	1	2	3	4	5	6	7	8	9	I	II	III	IV		
Total dwellings																	
Building coextensive with a single dwelling																	
Material of walls:																	
Material A																	
Material B																	
Material C																	
.																	
.																	
.																	
Building containing more than one dwelling																	
(Classification of material as above)																	
Building for persons living in institutions																	
(Classification of material as above)																	
All other types																	
(Classification of material as above)																	
Not stated																	

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ Census year (0) and years preceding the census year.

c/ See para. 3.30.

H10. Conventional dwellings by number of dwellings in the building

Unit of tabulation: living quarters

Living quarters included: conventional dwellings (paras. 3.54-3.61)

Classifications:

(a) Geographical division (paras. 2.51-2.53): each principal locality

(b) Number of dwellings per building: 1, 2, 3-9, 10-49, ... according to the needs of the country concerned

Use of tabulations

A distribution of dwellings by the number of dwellings in the building in which the dwellings are located provides a useful insight into the housing patterns of the population. The information required for the tabulation would normally be available from census control lists and would therefore not require any additional collection of data.

The number of dwellings in buildings has certain social implications for the occupants, for example, accessibility to various community facilities, play areas etc. It is also of economic significance in connexion with construction costs and the provision and cost of housing services such as gas, electricity, water etc. as well as in connexion with the provision and cost of community services (fire protection, garbage collection etc.).

The tabulation would normally be of significance only in urban areas and for localities of a certain size. Determination of the size of locality as well as the distribution used in the tabulation would depend upon housing characteristics in the country concerned.

Illustration H10. Conventional dwellings by number of dwellings in the building

Geographical division <u>a/</u> and unit of tabulation	Total dwellings	Number of dwellings in the building				
		1	2	3-9	10-49
Total dwellings						

a/ Each principal locality. See paras. 2.51-2.53.

III. Housing units by number of rooms, cross-classified by type of housing unit and number of occupants per housing unit (for early release)

Unit of tabulation: living quarters

Living quarters included: housing units (para. 3.52)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation; other

(c) Number of occupants per housing unit (para. 3.115): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and over

(d) Number of rooms per housing unit (paras. 3.87-3.89): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and over

Use of tabulations

Density of occupancy in terms of the number of persons per room is a widely recognized measure of the adequacy of housing conditions. One of the aims of housing policy is to reduce the density of occupancy to a level consistent with the maintenance of health and privacy of the occupants. This aspect of housing is regarded as being of sufficient importance in many countries for legal standards to have been adopted which specify the maximum number of persons by age, sex and family relationships to be housed in housing units having a specified number of rooms and bedrooms.

The number of persons per room furnishes the basis for one of the indicators of housing conditions discussed in Social Indicators: Preliminary Guidelines and Illustrative Series. 69/ The World Health Organization's Expert Committee on the Public Health Aspects of Housing 70/ drew attention to the importance of a sufficient number of rooms and a suitable separation of rooms according to the age and sex of the occupants as a fundamental of healthful residential environment. More recently, the WHO Expert Committee on Housing and Health stated that "the elimination of overcrowding and more specifically

69/ United Nations publication, Sales No. E.78.XVII.8, paras. 5.50-5.55 and annex IV.

70/ World Health Organization, Expert Committee on the Public Health Aspects of Housing: First Report, Technical Report Series, No. 225 (Geneva, 1961), sects. 2.3.1 and 2.3.2.

the improvement of air hygiene help to reduce the transmission of air-borne and dust-borne infections". 71/

The tabulation provides for the manual or automatic selection of data concerning any desired level of density considered of significance, from extreme overcrowding to under-occupancy. In establishing the statistical indicators of housing conditions the Statistical Commission and the Inter-Agency Working Party on Statistics for Social Programmes agreed that, for international purposes, dwellings with densities of three or more persons per room should be considered as overcrowded under any circumstances. For national use this level may be raised or lowered according to circumstances; different levels may be set for urban areas than for rural areas (the outdoor spaces in rural areas are sometimes considered as offsetting to some extent high densities prevailing within the housing units).

The geographical classification may be modified but it should be noted that high levels of density may coexist with a reasonably low average, and classification of the data by small geographical areas may be more revealing in this respect than data which refer to more extensive regions.

It should be kept in mind that only an approximate index of over-all average density can be derived from this tabulation. Aggregates for rooms and occupants can be obtained only by estimating the open-end classifications for the number of rooms and the number of occupants in housing units (10 and over). For a more precise index, these aggregates should be obtained for predetermined areas in the course of tabulating the data required for the table.

71/ World Health Organization, Expert Committee on Housing and Health, Uses of Epidemiology in Housing Programmes and in Planning Human Settlements, Technical Report Series, No. 544 (Geneva, 1974), sect. 3.3.1.

Illustration H11. Housing units by number of rooms, a/ cross-classified by type of housing unit and number of occupants per housing unit (for early release)

Geographical division, <u>b/</u> type of housing unit <u>c/</u> and number of occupants	Total housing units	Housing units with the following number of rooms <u>a/</u>										
		1	2	3	4	5	6	7	8	9	10+	Not stated
Total housing units												
Housing units with the following number of occupants												
0												
1												
2												
3												
4												
5												
6												
7												
8												
9												
10+												
Not stated												
Conventional dwellings with the following number of occupants . (Classification of occupants as above)												
Mobile housing units with the following number of occupants . (Classification of occupants 1-10+) <u>d/</u>												
Improvised housing units with the following number of occupants (Classification of occupants as above)												
Not intended for habitation, permanent, with the following number of occupants (Classification of occupants as above)												
Not intended for habitation, other, with the following number of occupants (Classification of occupants as above)												
Not stated												

a/ Excluding rooms used wholly for business or professional purposes.

b/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

c/ For a discussion concerning the types of housing units to be included, see paras. 3.54-3.69.

d/ Since by definition housing units other than dwellings are required to be occupied in order to be included in the census, category "0" is not applicable.

H12. Households in housing units by type of housing unit occupied, cross-classified by number of households and number of rooms per housing unit (for early release)

Units of tabulation:

- (a) This illustration: households
- (b) Alternative unit of tabulation: family nuclei

Households and family nuclei included: households and family nuclei occupying housing units (paras. 3.111-3.114)

Classifications:

- (a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)
- (b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation
- (c) Number of households per housing unit (para. 3.111-3.114): 1, 2, 3+
- (d) Number of rooms per housing unit (paras. 3.87-3.89): 1, 2, 3, 4, 5, 6, 7+

Use of tabulations

This tabulation provides information on the number of households that are sharing housing units with other households and thus provides an important basis for estimating housing needs. The importance of a separate housing unit for each household that desires one is widely recognized and is discussed under the uses of tabulation H2. Tabulation H19, which shows the number of subtenant households, provides similar information, since subtenant households as defined in paragraph 3.116 are households which share housing units with one or more other households. However, this tabulation provides additional information, since it shows the number of households that occupy the shared units plus the number of rooms in the housing units.

The classification of households per housing unit could be extended according to the extent of doubling-up in the country concerned. If information has been collected to show whether the sharing is voluntary or involuntary, additional subclassifications could be usefully included in the tabulation to reflect this. The tabulation is not applicable to collective living quarters.

In countries where households usually consist of extended families, it may be desirable to identify family nuclei as the basic units in need of separate housing units. In this case, a tabulation by family nuclei may be more meaningful.

Illustration H12. Households in housing units by type of housing unit occupied, cross-classified by number of households and number of rooms per housing unit (for early release)

Geographical division, <u>a/</u> number of households and number of rooms per housing unit	Total house- holds	Type of housing unit <u>b/</u>					Not stated
		Dwell- ing	Mobile unit	Impro- vised unit	Not intended for habitation		
					Perma- nent	Other	
Total households							
Households with the following number of households per housing unit:							
1							
In housing unit with the following number of rooms per housing unit:							
1							
2							
3							
4							
5							
6							
7+							
Not stated							
2							
(Classification of rooms as above)							
3+							
(Classification of rooms as above)							
Not stated							

For illustrative purposes, households in housing unit are shown as the unit of tabulation in this outline. A similar table should be prepared using family nuclei in housing units as the unit of tabulation (see para. 3.125).

For illustrative purposes, households in housing unit are shown as the unit of tabulation in this outline. A similar table should be prepared using family nuclei in housing units as the unit of tabulation (see para. 3.125).

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing unit to be included, see paras. 3.54-3.69.

H13. Living quarters by type, cross-classified by water supply system (for early release)

Units of tabulation:

- (a) This illustration: living quarters
- (b) Alternative units of tabulation: households, persons

Living quarters included: all living quarters (para. 3.41)

Households and persons included: households and persons occupying living quarters (para. 3.115)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Type of living quarters (paras. 3.48-3.79): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation; collective living quarters

(c) Water supply system (paras. 3.90-3.91): with piped water inside; with piped water outside but within 100 metres of the living quarters; without piped water

Use of tabulations

From this tabulation information may be derived on the number of persons and the number of households with ready access to a protected water supply as well as the availability of piped water for each class of living quarters. The supplying of water through pipes is recognized as the most effective means of protecting it from pollution and of ensuring its purity, provided that the water supply system is efficiently administered. The provision of as large a proportion of living quarters as possible with a piped-water installation is, therefore, one of the primary objectives of housing policy as well as of public health policy, and the availability of piped water is considered to be perhaps the most valuable indicator of sanitary conditions. The availability of a protected water supply for the occupants of each set of living quarters is essential for the prevention of communicable diseases as well as for the cleanliness and general comfort of the occupants. Furthermore, since it is a universal practice for the majority of persons to take their principal meals in their living quarters, the availability of a water-supply installation is of particular importance in connexion with the preparation of food.

In 1961 the World Health Organization's Expert Committee on the Public Health Aspects of Housing recommended that, as a fundamental of a healthful residential environment, "A potable and palatable water supply be provided in each dwelling-unit or in the courtyard where it is easily and readily

accessible." 72/ The Committee noted that "In the developing countries it may be economically feasible to supply the water only to a tap located in the courtyard or other similar area serving a group of houses. While this standard will permit the attainment of at least a minimum level of sanitation and cleanliness, the Committee suggests that the long-range objective in developing countries be the installation of piped water into each dwelling-unit." 73/ More recently the World Health Assembly stressed that "potable community water supply and sanitary disposal of human and animal excreta are basic services for the control of major communicable diseases and contribute to socio-economic development and to the improvement of the quality of life". 74/

The recommended classification of water supply system is proposed as a minimum classification, which may be expanded according to the needs of a particular country. Many countries have found it useful to tabulate information about the source of the water supply (see tabulation 14) in addition to information on whether or not it is piped to the living quarters; some have distinguished a supply used only by the occupants of the living quarters being enumerated from that used by the occupants of several living quarters; others have qualified further the location of the piped water supply by including a separate category for a supply which is not inside the living quarters but which is inside the building in which the living quarters are located.

The percentage of occupied dwellings with piped water inside the dwelling or outside the dwelling but within 100 metres provides information for the computation of indicators discussed in Social Indicators: Preliminary Guidelines and Illustrative Series. 75/

Because of the universal importance of a protected water supply for the total population, all classes of living quarters are included in the tabulation with their total occupants (those in households as well as the institutional population). Households are tabulated according to whether they occupy housing units or collective living quarters. It should be noted, therefore, that the cells for housing units will contain the number of households together with the number of persons in those households. There is no relationship, however, between households and persons in the cells that fall under "collective living quarters", since the number of persons includes persons living in institutions (i.e. not living in households).

It is recommended that the data be tabulated in geographical detail because of the importance of the topic and the use to which the information yielded may be put. In cities and towns particularly, the provision of piped water is normally a public responsibility and data concerning the areas

72/ World Health Organization, Expert Committee on the Public Health Aspects of Housing: First Report, p. 59.

73/ Ibid., sect. 2.4.1, p. 22.

74/ Twenty-ninth World Health Assembly, resolution WHA 29.47, May 1976.

75/ United Nations publication, Sales No. E.78.XVII.8, paras. 5.50-5.55 and annex IV.

lacking this facility may provide the basis for extending municipal systems. Where individual living quarters located in areas to which municipal systems have been extended are found to be without piped-water systems, the data may provide the basis for initiating local sanitation programmes.

If the number of collective living quarters is large, it may be useful to prepare similar tabulations by type of collective living quarters.

Illustration H13. Living quarters by type, cross-classified by water supply system (for early release)

Geographical division <u>a/</u> and availability of piped water	Total living quar- ters	Type of living quarters <u>b/</u>							Not stated
		Housing units					Collec- tive living quarters		
		Total	Dwell- ing	Mobile unit	Impro- vised unit	Not intended for habitation			
						Perma- nent		Other	
Total living quarters . .									
With piped water inside									
With piped water outside but within 100 metres of the living quarters									
Without piped water <u>c/</u>									
Not stated									

For illustrative purposes, living quarters are shown as the units of tabulation in this outline. Similar tables should be prepared using households and persons in living quarters as the units of tabulation (see para. 3.125).

For illustrative purposes, living quarters are shown as the units of tabulation in this outline. Similar tables should be prepared using households and persons in living quarters as the units of tabulation (see para. 3.125).

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii), see paras. 3.128-3.129.

b/ For a discussion concerning the types of living quarters to be included see paras. 3.48-3.79.

c/ Including living quarters whose occupants use piped water located beyond 100 metres from the living quarters.

H1⁴. Living quarters by type, cross-classified by water supply system and source of water supply

Units of tabulation:

- (a) This illustration: living quarters
- (b) Alternative units of tabulation: households, persons

Living quarters included: all living quarters (para. 3.41)

Households and persons included: households and persons occupying living quarters (para. 3.115)

Classifications:

- (a) Geographical division (paras. 3.128-3.129): according to the needs of the country concerned
- (b) Type of living quarters (paras. 3.48-3.79): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation; collective living quarters
- (c) Water supply system (paras. 3.90-3.91): with piped water inside; with piped water outside but within 100 metres of the living quarters; without piped water
- (d) Source of water supply (para. 3.90): piped community-wide system; catchment tank; public well; private well; river, spring etc.

Use of tabulations

The classification of water supply system recommended in tabulation H1³ is proposed as a minimum classification, which may be expanded according to the needs of a particular country. That shown in tabulation H1⁴ includes information about the source of the water supply in addition to information on whether or not it is piped to the living quarters.

Since most of the living quarters in principal localities would probably have a piped community-wide water supply system, this tabulation may be more applicable to rural areas and small localities.

Alternatively, in order to avoid producing a table with many blank cells, it may be useful to collect and tabulate data on source of water supply only for those living quarters which report either a piped water supply outside the living quarters or no piped water supply. While all living quarters with a piped water supply inside do not necessarily obtain the water from a community supply, there would tend to be a greater variety of sources from those either with piped water outside or without piped water and the source of water in these cases would also seem to be of greater concern.

If the number of collective living quarters is large, it may be useful to prepare similar tabulations by type of collective living quarters.

Illustration H14. Living quarters by type, cross-classified by water supply system and source of water supply

Geographical division <u>a/</u> and availability of piped water and source of water	Total living quar- ters	Type of living quarters <u>b/</u>							Collec- tive living quarters	Not stated
		Housing units					Not intended for habitation			
		Total	Dwell- ing	Mobile unit	Impro- vised unit	Perma- nent				
Total living quarters . .										
With piped water										
inside										
Piped community-wide										
system										
Catchment tank . . .										
Public well										
Private well										
River, spring etc. .										
With piped water										
outside but within										
100 metres of the										
living quarters . . .										
Piped community-wide										
system										
Catchment tank . . .										
Public well										
Private well										
River, spring etc. .										
Without piped water <u>c/</u>										
Piped community-wide										
system <u>d/</u>										
Catchment tank . . .										
Public well										
Private well										
River, spring etc. .										
Not stated										

For illustrative purposes, living quarters are shown as the units of tabulation in this outline. Similar tables could be prepared using households or persons in living quarters as the units of tabulation (see para. 3.125).

a/ Geographical division according to the needs of the country concerned. See paras. 3.128-3.129. In many countries or areas this tabulation may be applicable only to living quarters in rural areas.

b/ For a discussion concerning the types of living quarters to be included see paras. 3.48-3.79.

c/ Including living quarters whose occupants use piped water located beyond 100 metres from the living quarters.

d/ Refers to living quarters whose occupants obtain water from a piped community-wide system located beyond 100 metres from the living quarters.

H15. Occupied living quarters by type, cross-classified by type of toilet facilities (for early release)

Units of tabulation:

- (a) This illustration: living quarters
- (b) Alternative units of tabulation: households, persons

Living quarters included: occupied living quarters (para. 3.41)

Households and persons included: households and persons occupying living quarters (para. 3.115)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Type of living quarters (paras. 3.48-3.79): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation; collective living quarters

(c) Toilet facilities (paras. 3.92-3.97): with toilet installation (flush toilet; non-flush toilet); without toilet installation of any type

Use of tabulations

From this tabulation data may be obtained on the number of living quarters by type with the number of occupants and the type of toilet facilities available to them. The extent to which living quarters (particularly those located in densely populated areas) are equipped with satisfactory means of disposing of human waste is extremely important from a health point of view.

The twenty-ninth World Health Assembly stressed that "potable community water supply and sanitary disposal of human and animal excreta are basic services for the control of major communicable diseases and contribute to socio-economic development and to the improvement of the quality of life." 76/

The tabulation of toilet facilities shown provides the minimum data required for an evaluation of living quarters according to the facilities available. The information for dwellings is required for the computation of indicators of housing and its environment discussed in Social Indicators: Preliminary Guidelines and Illustrative Series. 77/

76/ Twenty-ninth World Health Assembly, resolution WHA29.47, May 1976.

77/ United Nations publication, Sales No. E.78.XVII.8, paras. 5.50-5.55 and annex IV.

Data on toilet facilities are also required for the formulation of housing programmes.

If the number of collective living quarters is large, it may be useful to prepare similar tabulations by type of collective living quarters. In fact, information concerning the availability of toilet facilities in institutions, hotels etc. is frequently collected in housing censuses. With respect to these units, however, separate tabulations that would also show the number of toilets in relation to the number of occupants may be more useful than information that merely indicates the availability of a toilet and the type of toilet. Similar information may be tabulated for housing units occupied by more than a certain number of households (more than two has been suggested).

In many countries the classification has been elaborated to provide information on the availability of particular types of toilets (other than flush) that are prevalent and characteristic of the country concerned and imply varying degrees of efficiency from a sanitary point of view. The tabulation may show whether the toilet facilities are used exclusively by the occupants of the living quarters or are shared with the occupants of other living quarters. For living quarters reported as having no facilities, the tabulation may be extended to reflect whether the occupants use a community toilet, whether they use the toilet facilities of other living quarters or whether there are no facilities available for their use.

The tabulation may be extended to show the methods of disposing of human excreta (community sewerage system; individual system such as a septic tank or pit; other systems such as toilets draining directly into lakes or rivers).

The geographical classification is subject to modification according to the proposed use of the data. The proximity of a public sewerage system to the living quarters will frequently be the factor that determines whether or not the living quarters can be equipped with a flush toilet. It will, therefore, be of interest to city planners to obtain information on the location of living quarters without flush toilets both within and beyond the areas to which the public sewerage system is extended; this may require data for small areas. The proportion of living quarters with flush toilet has quite different implications in cities and towns from the proportion in rural or sparsely populated areas; moreover, the type of arrangement considered satisfactory in rural areas may not come up to the standards established by public health authorities for urban areas, and thus some differentiation of the data by rural and urban may be necessary for their correct interpretation.

Illustration H15. Occupied living quarters by type, cross-classified by type of toilet facilities (for early release)

Geographical division <u>a/</u> and type of toilet facility available in living quarters	Total occu- pied living quar- ters	Type of living quarters <u>b/</u>							Collect- ive living quarters	Not stated
		Housing units					Not intended for habitation			
		Total	Dwel- ling	Mobile unit	Impro- vised unit	Perma- nent				
Total occupied living quarters										
With toilet										
Flush										
Non-flush										
Without toilet										
Not stated										

For illustrative purposes, occupied living quarters are shown as the units of tabulation in this outline. Similar tables should be prepared using households and persons in living quarters as the units of tabulation (see para. 3.125).

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of living quarters to be included see paras. 3.48-3.79.

H16. Occupied housing units by type, cross-classified by type of lighting
(for early release)

Units of tabulation:

- (a) This illustration: living quarters
- (b) Alternative unit of tabulation: persons

Living quarters included: occupied housing units (para. 3.52)

Persons included: persons occupying housing units (para. 3.115)

Classifications:

- (a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii))
- (b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation
- (c) Type of lighting (para. 3.106): electricity; gas; oil lamp; etc.

Use of tabulations

Countries in all regions attach considerable importance to the source of energy used for lighting. The Expert Committee on the Public Health Aspects of Housing enumerated "sufficient natural and artificial illumination" as one of the factors contributing to a healthful residential environment. 78/ This tabulation could provide planners with a useful indication of areas where community lighting needs to be extended.

For housing units lit by electricity, additional information may be tabulated to show whether the electricity comes from a community supply, generating plant or some other source (industrial plant, mine, etc.).

The geographical classification may be modified in accordance with the proposed use of the data.

78/ World Health Organization, Expert Committee on the Public Health Aspects of Housing: First Report, sect. 2.2 (j).

Illustration H16. Occupied housing units by type, cross-classified by type of lighting (for early release)

Geographical division <u>a/</u> and type of lighting	Total occupied housing units	Type of housing unit <u>b/</u>					Not stated
		Dwel- ling	Mobile unit	Impro- vised unit	Not intended for habitation		
					Perma- nent	Other	
Total occupied housing units .							
Type of lighting:		For illustrative purposes, occupied housing units are shown as the units of tabulation in this outline. A similar table should be prepared using persons in housing units as the units of tabulation (see para. 3.125)					
Electricity							
Gas							
Oil lamp							
(Other types of significance in the country concerned) .							
Not stated							

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing units to be included see paras. 3.54-3.69.

H17. Occupied housing units by type, cross-classified by availability and type of cooking facilities (for early release)

Units of tabulation:

- (a) This illustration: living quarters
- (b) Alternative units of tabulation: households, persons

Living quarters included: occupied housing units (para. 3.52)

Persons and households included: persons and households occupying housing units (para. 3.115)

Classifications:

- (a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)
- (b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation
- (c) Availability of kitchen or other space reserved for cooking (paras. 3.100-3.102): with kitchen; with other space reserved for cooking; without kitchen or other space reserved for cooking
- (d) Fuel used for cooking (para. 3.104): electricity, gas; wood; oil (and/or other categories appropriate in the country concerned)
- (e) Equipment used for cooking (para. 3.103): stove; hot plate; open fire (and/or other categories appropriate in the country concerned)

Use of tabulations

In many countries the availability of a kitchen and the equipment and type of fuel used for cooking are important aspects in considering the adequacy of housing.

The classifications used in this tabulation for equipment and fuel used for cooking should be formulated to conform to the types of equipment and types of fuel normally used in the country concerned. Data on fuel may refer to the fuel most frequently used and it may be confined to the fuel used for preparing the principal meals.

If information has been gathered (as suggested in para. 3.105) on the number of kitchens or kitchenettes or the number of stoves in housing units occupied by more than a certain number of households and for collective living quarters, such as hotels, boarding houses, multihousehold living quarters, it would be useful to tabulate this information according to the type of living quarters and the number of households.

Illustration H17. Occupied housing units by type, cross-classified by availability and type of cooking facilities (for early release)

Geographical division <u>a/</u> and availability and type of cooking facilities	Total occupied housing units	Type of housing unit <u>b/</u>					
		Dwell- ing	Mobile unit	Impro- vised unit	Not intended for habitation		Not stated
					Perma- nent	Other	
Total occupied housing units . .							
Availability of kitchen or other space reserved for cooking:							
With kitchen							
With other space reserved for cooking							
Without kitchen or other space reserved for cooking							
Not stated							
Fuel used for cooking: <u>c/</u>							
Electricity							
Gas							
Wood							
Not stated							
Equipment used for cooking: <u>c/</u>							
Stove							
Hot plate							
Open fire							
Not stated							

For illustrative purposes, occupied housing units are shown as the units of tabulation in this outline. Similar tables should be prepared using households and persons in housing units as the units of tabulation (see para. 3.125).

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing units to be included see paras. 3.54-3.69.

c/ Classification of fuel and equipment used for cooking should correspond to the needs of the country concerned.

H18. Occupied housing units by type, cross-classified by availability of bathing facilities

Units of tabulation:

- (a) This illustration: living quarters
- (b) Alternative units of tabulation: households, persons

Living quarters included: occupied housing units (para. 3.52)

Households and persons included: households and persons occupying housing units (para. 3.115)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation

(c) Bathing facilities (paras. 3.98-3.99): with fixed bath or shower; without fixed bath or shower

Use of tabulations

The availability of bathing facilities in housing units is an important factor in considering the adequacy of housing from a health point of view. The Expert Committee on the Public Health Aspects of Housing stressed the desirability that each household or family should be provided with some means of body bathing. 79/

If additional information has been collected showing whether the facilities are for the exclusive use of the occupants of the housing unit and whether there is hot water for bathing purposes or cold water only, this information may be included in the tabulation.

Information may also be collected which shows whether the occupants of housing units reported as having no fixed bath or shower share the facilities of another housing unit, use a public facility or have no access to bathing facilities. In such cases the tabulation may be further expanded to include appropriate classifications for this information.

79/ World Health Organization, Expert Committee on the Public Health Aspects of Housing: First Report.

If information has been gathered (as suggested in para. 3.99) on the number of fixed baths or showers available in housing units occupied by more than a certain number of households and for collective living quarters such as hotels, boarding houses and multihousehold living quarters, it would be useful to tabulate this information according to the type of living quarters and number of occupants.

Illustration H18. Occupied housing units by type, cross-classified by availability of bathing facilities

Geographical division <u>a/</u> and availability of bathing facilities	Total occupied housing units	Type of housing unit <u>b/</u>					Not stated
		Dwell- ing	Mobile unit	Impro- vised unit	Not intended for habitation		
					Perma- nent	Other	
Total occupied housing units							
Availability of fixed bath or shower:							
With							
Without							
Not stated							

For illustrative purposes, occupied housing units are shown as the units of tabulation in this outline. Similar tables could be prepared using households or persons in housing units as the units of tabulation (see para. 3.125).

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing units to be included see paras. 3.54-3.69.

H19. Households in housing units by type of housing unit, cross-classified by tenure of household and, for tenant households, ownership of housing unit occupied (for early release)

Units of tabulation:

- (a) This illustration: households
- (b) Alternative unit of tabulation: persons

Households and persons included: households and persons occupying housing units (para. 3.115)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality (distinguish between urban and rural for (i), (ii) and (iii))

(b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation

(c) Tenure (paras. 3.116-3.118): owner; tenant; subtenant; other forms of tenure

(d) Type of ownership (paras. 3.84-3.86): government (e.g. central, local, corporations etc.); private (households, private corporations etc.)

Use of tabulations

This tabulation yields data showing the type of tenure under which households occupy their living space. The data are tabulated in terms of households rather than housing units in order to show more clearly the tenure status of households sharing housing units. The number of owner-occupied housing units can be obtained from the tabulation using the corresponding figures for owner households in each category; an approximation for rented units could be obtained by subtracting the number of owner-occupied units from the total occupied housing units shown in tabulations H16, H17 or H18.

The extent to which households own or rent the accommodation that they occupy is of special significance for housing programmes. Housing programmes frequently include special provisions for assistance to owner-occupants for the maintenance or improvement of their housing units, and housing policy is invariably concerned with rent levels and the population likely to be affected by rent policy. The number of households occupying their living quarters as subtenants is indicative of the seriousness of the housing shortage, and such households will be of primary concern in formulating housing programmes, however, when the number of subtenants is thought to be insignificant it may not be necessary to tabulate this information except, perhaps, for selected areas.

Type of ownership of the housing unit occupied is shown in this table for renting households. It is assumed that few, if any, subtenant households

would be occupying government owned housing. In some countries a separate category may be tabulated for households that occupy their living quarters free of cash rent.

A greater variation of tenure status seems to exist among the occupants of certain types of housing units than was hitherto supposed. For example, whereas it was once assumed that the inhabitants of squatter areas erected and owned their own improvised shacks, it now appears that the economic demand for this type of housing has manifested itself in the appearance of squatter "entrepreneurs" who trade in squatter accommodation by buying, selling or renting it as the opportunity arises. For this reason, the tabulation includes all types of housing units rather than dwellings only.

Several variations of the classification of tenure have been found useful. Tenure data are sometimes classified so as to distinguish the tenure under which the living quarters are occupied from the tenure of the land upon which they stand (for some countries such a classification may be of special significance). Owner-occupants are shown in some cases according to whether the housing unit is fully paid for or whether it is being paid for in instalments or mortgaged; rental data are subclassified to show separate information for accommodation rented unfurnished and accommodation rented furnished.

Illustration H19. Households in housing units by type of housing unit cross-classified by tenure of household and, for tenant households, ownership of housing unit occupied (for early release)

Geographical division <u>a/</u> and tenure of household	Total house- holds	Type of housing unit <u>b/</u>					Not stated
		Dwell- ing	Mobile unit	Impro- vised unit	Not intended for habitation		
					Perma- nent	Other	
Total households		<div>For illustrative purposes, households in housing units are shown as the units of tabulation in this outline. A similar table should be prepared using persons in housing units as the unit of tabulation (see para. 3.125).</div>					
Tenure of household							
Owner-occupant							
Tenant							
Government owned housing unit							
Privately owned housing unit							
Subtenant							
Other form of tenure . . .							
Not stated							

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing unit to be included see paras. 3.54-3.69.

H20. Households in housing units by type of housing unit, cross-classified by type of owner of the housing unit, availability of piped water and availability of toilet facilities in the housing unit

Unit of tabulation: households

Households included: households occupying housing units (para. 3.115)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation

(c) Type of ownership (paras. 3.84-3.86): government (e.g. central, local, corporations, etc.); private (e.g. households, private corporations etc.)

(d) Water supply system (paras. 3.90-3.91): with piped water inside; with piped water outside but within 100 metres of housing unit; without piped water

(e) Toilet facilities (paras. 3.92-3.97): with toilet installation (flush toilet; non-flush toilet); without toilet installation of any type

Use of tabulations

In this tabulation households are tabulated according to the type of housing unit occupied, the principal facilities available in the housing unit and the type of owner. The information on toilet and water supply is cross-classified in order to show the number of households by owner of the housing unit according to whether the housing unit has piped water and/or toilet facilities or neither of these facilities.

Ownership of housing units lacking basic facilities would be of particular interest and it would be useful for the purpose of housing programmes to know whether these units are occupied by their owners or occupied by tenants.

Illustration H20. Households in housing units by type of housing unit, cross-classified by type of owner of the housing unit, availability of piped water and availability of toilet facilities in the housing unit

Geographical division, <u>a/</u> type of owner, and facilities in the housing unit	Total house- holds	Type of housing unit <u>b/</u>					
		Dwelling	Mobile unit	Impro- vised unit	Not intended for habitation		Not stated
					Perma- nent	Other	
Total households							
Households in:							
Government-owned housing unit							
Water supply:							
With piped water inside							
Toilet facilities . .							
With toilet							
Flush							
Non-flush							
Without toilet							
Not stated							
With piped water outside but within 100 metres of unit . .							
(Classification of toilet as above)							
Without piped water <u>c/</u> .							
(Classification of toilet as above)							
Not stated							
Privately owned housing unit (Classification of water and toilet as above)							
Ownership not stated							

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing units to be included see paras. 3.54-3.69.

c/ Including housing units whose occupants use a piped water supply located beyond 100 metres from the housing unit.

F21. Renting households in dwellings by rent paid, cross-classified by type of owner of the dwelling, furnished or unfurnished and tenure of the household

Unit of tabulation: households

Households included: renting households (paras. 3.115-3.118)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Rent paid (paras. 3.119-3.121): a scale of rents established in accordance with the range of rent normally paid and the currency in the country concerned and an indication of whether the premises are rented furnished or unfurnished

(c) Type of ownership (paras. 3.84-3.86): government (e.g. central, local, corporations); private (e.g. households)

(d) Tenure (paras. 3.116-3.118): tenant; subtenant

Use of tabulations

In this illustration, households are tabulated according to the rent paid by the household and the type of owner of the dwelling occupied. Households renting privately owned dwellings are further classified according to whether the household is a main tenant or a subtenant and whether the premises are rented furnished or unfurnished. These latter classifications would not normally apply to government owned dwellings.

Data on type of ownership and rent paid furnish an opportunity to review the part played by the public and private sectors in providing housing for the population and the cost of such housing. This information should be useful for the formulation of housing programmes and also in connexion with the adoption of policies which involve rent control or rent subsidies.

Illustration H21. Renting households in dwellings by rent paid, cross-classified by type of owner of the dwelling, furnished or unfurnished, and tenure of the household

Geographical division, <u>a</u> / type of ownership, tenure, furnished or unfurnished	Total renting households	Monthly rent paid by household				
		Scale of rents				
Total renting households						
Government-owned dwellings						
Privately-owned dwellings						
Tenant						
Furnished						
Unfurnished						
Subtenant						
Furnished						
Unfurnished						
Tenure not stated . . .						

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

H22. Renting households, classified by whether space occupied is furnished or unfurnished and amount of rent paid monthly by the household, cross-classified by type of housing unit and number of households in the housing unit (for early release)

Unit of tabulation: households

Households included: renting households (paras. 3.115-3.118)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Furnished or unfurnished housing units (para. 3.120): furnished; unfurnished

(c) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation

(d) Rent paid (paras. 3.119-3.121): a scale of rents established in accordance with the range of rents normally paid and the currency in the country concerned

(e) Households per housing unit (paras. 3.111-3.114): 1, 2, 3+

Use of tabulations

In this tabulation, rent paid refers to the amount paid monthly by the household for the space it occupies. The amount of rent paid is related to the number of households occupying the housing unit and the type of housing unit. However, it might also be related to the occupation or industry of the heads of households, particularly where these characteristics provide a significant indication of the income levels of large sectors of the population. The tabulation may be further expanded to show whether the rent includes the cost of utilities such as gas, electricity and heat where this information has been collected.

Illustration H22. Renting households, classified by whether space occupied is furnished or unfurnished and amount of rent paid monthly by the household, cross-classified by type of housing unit and number of households in the housing unit (for early release)

Geographical division, a/ type of housing unit b/ and households per housing unit	Total house- holds	Monthly rent paid by household							
		Space occupied furnished				Space occupied unfurnished			
		Scale of rents				Scale of rents			
Total households in:									
Housing units									
Households with the following number of households per unit: .									
1									
2									
3+									
Not stated									
Dwellings (Classification of households as above)									
Mobile housing units. . . (Classification of households as above)									
Improvised housing units (Classification of households as above)									
Not intended for habitation, permanent . (Classification of households as above)									
Not intended for habitation, other . . . (Classification of households as above)									
Type of housing unit not stated									

a/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

b/ For a discussion concerning the types of housing units to be included see paras. 3.54-3.69.

H23. Rented 80/ housing units, classified by furnished or unfurnished and amount of rent paid monthly for the housing unit, cross-classified by type of housing unit and number of rooms (for early release)

Unit of tabulation: living quarters

Living quarters included: rented 80/ housing units (paras. 3.116-3.118)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Furnished or unfurnished housing units (para. 3.120): furnished; unfurnished

(c) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation

(d) Rent paid (paras. 3.119-3.121): a scale of rents established in accordance with the range of rents normally paid and the currency in the country concerned

(e) Rooms per housing unit (paras. 3.87-3.89): 1, 2, 3, 4, 5, 6, 7+

Use of tabulations

In this tabulation, rent is the total amount paid for the housing unit. The data would be obtained from the information on rent paid by households. In cases where a housing unit is occupied by only a single household, the amount of rent paid by the household and the rent paid for the housing unit are the same. In cases where housing units are occupied by two or more households, the rents paid by each of the households will need to be aggregated in order to provide the total rent paid for the housing unit. It will be necessary either to exclude from the tabulation housing units that are partly rented and partly owner-occupied or to impute the rent for the owner-occupied portion. Rented housing units are further classified into furnished and unfurnished so as to distinguish rent paid exclusively for the space occupied from that paid for space plus furnishings.

In this tabulation rent paid is related to the number of rooms in the housing unit, since space is an important factor in determining the cost of housing. It may be useful, however, to expand the tabulation so that it includes not only the number of rooms in the housing unit but an indication of the availability of certain basic facilities such as piped water and toilet (see tabulation H24). If information has been collected showing whether or not the rent is controlled, this could usefully be included in the tabulation.

80/ "Rented", in this case, means wholly rented and does not include housing units occupied by an owner who rents part of the unit to another household.

Special attention is sometimes given to the identification of rented single-room dwellings located in multidwelling buildings (these have been termed "single-room letting" in the European region). Where they represent a significant proportion of the housing inventory and the housing services that they provide are thought to be inadequate in relation to the needs of the occupants, special tabulation of such units may be useful.

Illustration H23. Rented a/ housing units, classified by furnished and unfurnished and amount of rent paid monthly for the housing unit, cross-classified by type of housing unit and number of rooms (for early release)

Geographical division, <u>b/</u> type of housing unit <u>c/</u> and rooms per housing unit	Total housing units	Monthly rent paid for housing units							
		Furnished				Unfurnished			
		Scale of rents				Scale of rents			
Total housing units									
Housing units with the following number of rooms:									
1									
2									
3									
4									
5									
6									
7+									
Not stated									
Dwellings with the following number of rooms (Classification of rooms as above)									
Mobile housing units with the following number of rooms (Classification of rooms as above)									
Improvised housing units with the following number of rooms (Classification of rooms as above)									
Not intended for habitation, permanent, with the following number of rooms (Classification of rooms as above)									
Not intended for habitation, other, with the following number of rooms (Classification of rooms as above)									
Not stated									

a/ "Rented" in this case means wholly rented and does not include housing units occupied by an owner who rents part of the unit to another household.

b/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

c/ For a discussion concerning the types of housing units to be included see paras. 3.54-3.69.

H24. Rented housing units, classified by furnished or unfurnished and amount of rent paid monthly for the housing unit, cross-classified by availability of piped water and toilet facilities

Unit of tabulation: living quarters

Living quarters included: rented 81/ housing units (paras. 3.116-3.118)

Classifications:

(a) Geographical division (paras. 3.128-3.129): (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii)

(b) Furnished or unfurnished housing units (para. 3.120): furnished; unfurnished

(c) Type of housing unit (paras. 3.54-3.69): conventional dwellings; mobile housing units; improvised housing units; housing units in permanent buildings not intended for human habitation; other premises not intended for human habitation

(d) Rent paid (paras. 3.119-3.121): a scale of rents established in accordance with the range of rents normally paid and the currency in the country concerned

(e) Water supply system (paras. 3.90-3.91): with piped water inside; with piped water outside but within 100 metres of the housing unit; without piped water

(f) Toilet facilities (paras. 3.92-3.97): with toilet installation (flush toilet; non-flush toilet); without toilet installation of any type

Use of tabulations

The comments concerning the amount of rent paid outlined in connexion with tabulation H23 are also applicable to this tabulation. The purpose of this tabulation is to relate the cost of housing to the adequacy of basic services; in this case the availability of piped water and toilet facilities.

81/ "Rented", in this case, means wholly rented and does not include housing units occupied by an owner who rents part of the unit to another household.

Illustration H24. Rented a/ housing units, classified by furnished or unfurnished and amount of rent paid monthly for the housing unit, cross-classified by availability of piped water and toilet facilities

Geographical division, <u>b/</u> type of housing unit, number of rooms per housing unit <u>c/</u> and availability of piped water and toilet facilities	Total housing units	Monthly rent paid for housing units							
		Furnished				Unfurnished			
		Scale of rents				Scale of rents			
Total housing units									
Housing units with the following facilities:									
With piped water inside . . .									
With toilet <u>d/</u>									
Flush									
Non-flush									
Without toilet									
Not stated.									
With piped water outside but within 100 metres of unit									
(Classification of toilet as above)									
Without piped water									
With toilet									
Without toilet									
Not stated									
Not stated									
Dwellings with the following facilities:									
(Classification of water supply and toilet facilities as above)									
Mobile housing units with the following facilities:									
(Classification of water supply and toilet facilities as above)									

Illustration H24 (continued)

Geographical division, <u>b/</u> type of housing unit, number of rooms per housing unit <u>c/</u> and availability of piped water and toilet facilities	Total housing units	Monthly rent paid for housing units							
		Furnished				Unfurnished			
		Scale of rents				Scale of rents			
Not intended for habitation, permanent, with the following facilities: (Classification of water supply and toilet facilities as above)									
Not intended for habitation, other, with the following facilities: (Classification of water supply and toilet facilities as above)									
Not stated									

a/ "Rented" in this case means wholly rented and does not include housing units occupied by an owner who rents part of the unit to another household.

b/ This table may be compiled for: (i) total country; (ii) each major civil division; (iii) each minor civil division; (iv) each principal locality. Distinguish between urban and rural for (i), (ii) and (iii). See paras. 3.128-3.129.

c/ For a discussion of the types of housing unit to be included see paras. 3.54-3.69.

d/ In some cases the classification of toilet facilities may need to be modified. For example, in some countries "flush" and "non-flush" may be applicable only in urban areas and only for housing units with piped water inside.

Annexes

Annexes

Annex I

TOPICS INCLUDED IN THE REGIONAL RECOMMENDATIONS FOR THE 1980 POPULATION CENSUSES BUT NOT BY A MAJORITY OF THE REGIONS

List A of the present publication (see para. 2.15) gives topics included as "priority" in the majority of the regional recommendations for the 1980 population censuses. List B (see para. 2.16) gives topics that, while not comprised in list A, are included by the majority of regions when both "priority" and "other useful" topics are taken into consideration. The list below comprises topics that are not included in either list A or B but are mentioned in the recommendations of at least one region. Together, the three lists include all of the topics that appear in the regional recommendations for the 1980 population censuses.

List C

Geographical and migration characteristics

- Location of place of work
- Location of school, university etc.
- Journey to work
- Place of civil registration
- Year or period of arrival in country to take up residence
- Reason for migration
- Metropolitan and similar areas

Household /or family/ characteristics a/

- Type of institutional household or other communal establishment in which a person lives
- Whether or not living as an inmate of an institutional household or other communal establishment

Demographic and social characteristics

- Form of marriage
- Number of spouses
- Physical disabilities

a/ See foot-note o/ in annex II.

Fertility and mortality

All deaths in household within the 12 months preceding the census

Paternal orphanhood

Survival of first husband

Economic characteristics

Socio-economic group

Dependency

Duration of unemployment

Main source of livelihood

Type of establishment

Number of persons employed by employer

Farm or non-farm residence

Annex II

TOPICS INCLUDED IN THE REGIONAL RECOMMENDATIONS FOR THE 1980 POPULATION CENSUSES
AND IN THE GLOBAL RECOMMENDATIONS FOR POPULATION CENSUSES

The following table shows, in the first column, the population topics included in the global recommendations for population and housing censuses and, in the succeeding columns, the topics included in each of the regional recommendations for the 1980 censuses.

		Regional recommendations													
		"Priority" topics						"Other useful" topics							
Topic	Global recommen- dations (Lists A and B) <u>a/</u>	ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>	Number of regions	ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>	Number of regions	Total number of regions	
<u>Geographical and migration characteristics</u>															
Place where present at time of census	X		X	X <u>g/</u>	X	X	4	X					1	5	
and/or	and/or		and/or	and/or	and/or	and/or									
Place of usual residence. . . .	X	X	X	X	X	X	5							5	
Place of birth . .	X	X <u>h/</u>	X	X	X	X	5	X <u>h/</u>					1	5	
Duration of residence	X		X	X	X	X	4	X					1	5	
Place of previous residence	X		X <u>i/</u>	X <u>j/</u>		X	3	X					1	4	
Place of residence at a specified date in the past	X	X	X <u>i/</u>	X <u>j/</u>		X	4							4	
Total population .	X	X	X	X	X	X	5							5	
Locality	X	X	X	X	X	X	5							5	
Urban and rural	X	X	X	X	X	X	5							5	
Location of place of work		X			X		2							2	
Location of school, university etc.								X					1	1	
Journey to work .								X					1	1	
Place of civil registration . .						X	1							1	
Year or period of arrival in country to take up residence				X			1	X					1	2	

Regional recommendations														
Topic	Global recommen- dations (Lists A and B) <u>a/</u>	"Priority" topics					Number of regions	"Other useful" topics					Number of regions	Total number of regions
		ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>		ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>		
<u>Geographical and migration characteristics</u> (continued)														
Reason for migration						X	1							1
Metropolitan and similar areas . . .				X			1							1
<u>Household characteristics</u>														
Relationship to head or other reference member of household /or family/ <u>h/</u> . .	X	X <u>l/</u>	X <u>m/</u>	X <u>n/</u>	X <u>n/</u>	X <u>n/</u>	5							5
Household /or family/ <u>h/</u> composition . . .	X	X <u>o/</u>	X <u>p/</u>	X <u>q/</u>		X <u>q/</u>	4	X <u>o/</u>			X <u>q/</u>		2	5
Type of institutional household or other communal establishment in which a person lives								X					1	1
Whether or not living as an inmate of an institutional household or other communal establishment. . .								X					1	1
<u>Demographic and social characteristics</u>														
Sex	X	X	X	X	X	X	5							5
Age	X	X	X	X	X	X	5							5
Marital status . . .	X	X	X	X	X	X	5							5
Citizenship	X	X <u>h/</u>	X		X	X	4							4
Religion	X		X				1	X			X	X	3	4
Language	X		X				1	X			X <u>h/</u>		2	3
National and/or ethnic group . . .	X					X	1	X	X		X		3	4

Topic	Global recommen- dations (Lists A and B) <u>a/</u>	Regional recommendations												Number of regions	Total number of regions
		"Priority" topics					"Other useful" topics								
		ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>	ECE <u>b/</u>	ESCAP <u>e/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>				
<u>Demographic and social characteristics</u> (continued)															
Form of marriage											X		1	1	
Number of spouses											X	X	2	2	
Physical disabilities .							(<u>r/</u>)	X					1	1	
<u>Fertility and mortality</u>															
Children born alive	X		X	X	X	4	X						1	5	
Children living .	X		X		X	3			X				1	4	
Age at marriage .	X						X <u>s/</u>	X		X			3	3	
Duration of marriage . . .	X							X		X	X		3	3	
Live births within the 12 months preceding the census	X			X	X	2		X <u>t/</u>				X	2	4	
Live births in households within the 12 months preceding the census . .										X			1	1	
Deaths of infants born within the 12 months preceding the census	X				X	1		X				X	2	3	
Maternal orphanhood . .	X				X	1			X			X	2	3	
All deaths in households within the 12 months preceding the census . .										X	X		2	2	
Paternal orphanhood . .					X	1						X	1	2	
Survival of first husband												X	1	1	

Topic	Regional recommendations													
	"Priority" topics							"Other useful" topics						
	Global recommen- dations (Lists A and B) <u>a/</u>	ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>	Number of regions	ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>	Number of regions	Total number of regions
<u>Educational characteristics</u>														
Educational attainment . .	X	X	X	X	X	X	5							5
Literacy	X		X	X	X	X	4	X					1	5
School attendance . .	X		X	X	X	X	4	X					1	5
Educational qualifications	X							X	X	X		X	4	4
<u>Economic characteristics</u>														
Activity status .	X	X	X	X	X	X	5							5
Occupation . . .	X	X	X	X	X	X	5							5
Industry	X	X	X	X	X	X	5							5
Status in employment . .	X	X	X	X	X	X	5							5
Time worked . . .	X							X	X	X		X	4	4
Income	X							X	X	X			3	3
Sector of employment . .	X					X	1	X		X <u>u/</u>	X		3	4
Socio-economic group		X					1							1
Dependency . . .								X	X				2	2
Duration of unemployment .								X				X	2	2
Main source of livelihood . .								X					1	1
Type of establishment .												X	1	1
Number of persons employed by employer . . .								X					1	1
Farm or non-farm residence . . .								X					1	1

(Foot-notes on following page)

a/ Topics included in paras. 2.15-2.17 of the present publication.

b/ Economic Commission for Europe, Recommendations for the 1980 Censuses of Population and Housing in the ECE Region, Statistical Standards and Studies, No. 31 (United Nations publication, Sales No. E.78.II.E.6).

c/ Economic and Social Commission for Asia and the Pacific, Asian and Pacific Recommendations for the 1980 Population and Housing Censuses (ST/ESCAP/52).

d/ Inter-American Statistical Institute, Program of the 1980 Census of America (COTA-1980): Standards for the Population and Housing Censuses (LASI document 7357a-3/16/78.25).

e/ Economic Commission for Africa, "Report of the Working Group on recommendations for the 1980 Population and Housing Censuses in Africa" (E/CN.14/CPH/47).

f/ Economic Commission for Western Asia, Expert Group Meeting on Census Techniques, 12-16 December 1977, Final Report (E/ECWA/POP/WG.9/2).

g/ It is recommended that countries using the concept of "place where found at time of census" should also collect information on "place of usual residence" for use in obtaining statistics on migration.

h/ The "priority" topic is "country of birth and/or citizenship". The "other useful" topic is "place of birth of the native population".

i/ No preference is indicated for either the investigation of "place of previous residence" or "place of residence at a specified date in the past". It is recommended, however, that countries not investigating the latter topic should tabulate the data on "place of previous residence" in combination with the data on "duration of residence".

j/ Preference is given to the investigation of "place of residence at a specified date in the past".

k/ See para. 2.75 of the present publication for the sense in which "family" is used in the topic in the global recommendations.

l/ The topic is "relationship to reference member of private household".

m/ The topic is "relationship to head of household and/or relationship to head of family".

n/ The topic is "relationship to head of household".

o/ Under the general headings of "household and family characteristics of persons", "characteristics of family nuclei" and "characteristics of private households", a considerable number of derived topics, both "priority" and "other useful" are included. Many of the topics are included, with some variations, as tabulation components in the global recommendations and/or in one or more of the regional recommendations. The extensive explanations that would be required to make clear the relationship between these ECE topics and the tabulations included in the global and/or other regional recommendations are not possible in a tabular presentation. The topics are, therefore, not shown on the present table. They can be found in the source cited in foot-note b/ above.

(Continued)

p/ The topic is "household and/or family composition".

q/ The topic is "household composition".

r/ Included as an element of the topic "national and/or ethnic group."

s/ The topic is "date of marriage" and refers to (i) first marriage and
(ii) current marriage.

t/ Including information on whether or not births were registered.

u/ Not included as a separate topic but in the classification of "status in employment", the category "employee" is subdivided by sector of employment.

Annex III

TOPICS INCLUDED IN THE REGIONAL RECOMMENDATIONS FOR THE 1980 HOUSING CENSUSES BUT NOT BY A MAJORITY OF THE REGIONS

List D (see para. 3.15) comprises topics included as "basic" in at least three of the five sets of regional recommendations a/ for the 1980 housing censuses. List E (see para. 3.15) refers to one topic included as "basic" or "other useful" in at least three sets of the regional recommendations. List F, below, comprises topics included in at least one set of the regional recommendations but not included in lists D or E. Together, the three lists include all of the topics that appear in the regional recommendations for the 1980 housing censuses.

LIST F

Building in which living quarters are located

- Farm building or non-farm building
- Number of floors (storeys) in the building
- Number of dwellings in the building
- Availability of elevator (lift)
- State of repair

Living quarters

- Bedrooms, number of
- Temperature control
- Location of living quarters in the building
- Useful and/or living floor space
- Outdoor space
- Use of living quarters
- Hot water

a/ Economic Commission for Europe, Recommendations for the 1980 Censuses of Population and Housing in the ECE Region, Statistical Standards and Studies, No. 31 (United Nations publication, Sales No. E.78.II.E.6); Economic and Social Commission for Asia and the Pacific, Asian and Pacific Recommendations for the 1980 Population and Housing Censuses (ST/ESCAP/52); Inter-American Statistical Institute, Program of the 1980 Census of America (COTA-1980); Standards for the Population and Housing Censuses (IASI document 7357a - 3/16/78-25); Economic Commission for Africa, Report of the Working Group on Recommendations for the 1980 Population and Housing Censuses in Africa (E/CN.14/CPH/47); Economic Commission for Western Asia, Expert Group Meeting on Census Techniques, 12-16 December 1977, Final Report (E/ECWA/POP/WG.9/2).

Living quarters (continued)

Source of fuel

Source of energy for heating

Type of sewage disposal system

Piped gas

Telephone

Occupants of living quarters - number and characteristics of

Tenure of land on which living quarters are located

Head of household

Socio-economic group

Marital status

Industry

Status

National and/or ethnic group

Income level

Length of occupancy of present household

Type of household

Size of household

Single or shared occupancy

Household appliances

Annex IV

TOPICS INCLUDED IN THE REGIONAL RECOMMENDATIONS FOR THE 1980 HOUSING CENSUSES AND IN THE
GLOBAL RECOMMENDATIONS FOR HOUSING CENSUSES

The following table shows, in the first column, the housing topics included in the global recommendations for population and housing censuses and, in the following columns, the topics included in each of the regional recommendations for the 1980 housing censuses.

Topic	Global recommenda- tions (lists D and E) <u>a/</u>	Regional recommendations					Total number of regions
		"Priority" topics			"Other useful" topics		
		ECE <u>b/</u> ESCAP <u>c/</u> IASI <u>d/</u> ECA <u>e/</u> ECWA <u>f/</u> <u>g/</u>	Number of regions	ECE <u>b/</u> ESCAP <u>c/</u> IASI <u>d/</u> ECA <u>e/</u> ECWA <u>f/</u> <u>g/</u> <u>h/</u>	Number of regions		
<u>Building in which living quarters are located</u>							
Building, type of . . .	X	X X X	3	X	1	4	
Construction material of outer walls .	X	X X <u>i/</u> X	3	X <u>j/</u> X <u>k/</u> X <u>i/</u>	2	5	
Year or period of construction	X	X <u>l/</u> X X <u>m/</u>	3			3	
Farm building or non-farm .				X	1	1	
Number of floors (storeys) . .				X	1	1	
Number of dwellings in building . .				X	1	1	
Elevators (lifts) . . .				X	1	1	
State of repair . . .				X	1	1	

Annex IV (continued)

Topic	Global recommenda- tions (lists D and E) <u>a/</u>	Regional recommendations								
		"Priority topics"			"Other useful" topics			Number of regions	Number of regions	Total number of regions
		ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/</u>	<u>g/</u> <u>h/</u>			
<u>Living quarters, characteristics and facilities of</u>										
Location	X	X	X	X	X	X		5		5
Living quarters, type of	X	X	X	X	X	X		5		5
Occupancy status	X	X	X	X	X	X	X <u>n/</u>	4	1	4
Rooms, number of	X	X	X	X	X	X		5		5
Lighting, type of	X		X	X	X	X	X <u>p/</u>	4	1 <u>p/</u>	5
Toilet facilities	X	X	X	X	X	X		5		5
Water supply system	X	X	X	X	X	X		5		5
Ownership, type of	X	X	X			X		3		3
Bathing facilities	X	X		X <u>r/</u>	X		X	3	1	4
Cooking facilities	X	X <u>s/</u>	X <u>t/</u>	X <u>w/t/</u>	X <u>t/</u>		X <u>v/</u> X <u>w/</u>	4 <u>u/</u>	2	4
Position of dwelling in building							X		1	1
Use of living quarters						X <u>x/</u>		1		1
Useful and/or living floor space							X X		2	2
Outdoor space . .							X		1	1
Bedrooms, number of				X				1		1

Annex IV (continued)

Topic	Global recommenda- tions (lists D and E) <u>a/</u>	Regional recommendations						Total number of regions						
		"Priority" topics				"Other useful" topics								
		ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/ g/</u>	Number of regions		ECE <u>b/</u>	ESCAP <u>c/</u>	IASI <u>d/</u>	ECA <u>e/</u>	ECWA <u>f/ g/ h/</u>	Number of regions
<u>Living quarters, characteristics and facilities of (continued)</u>														
Hot water								X					1	1
Temperature control		X <u>y/</u>					1		X				1	2
Source of energy for heating								X					1	1
Type of sewage disposal system .								X					1	1
Piped gas								X					1	1
Telephone								X					1	1
<u>Occupants of living quarters, number and characteristics of <u>aa/</u></u>														
Conjugal family nucleus	X	X <u>bb/</u>	X	X			3							3
Head of household or reference person														
Age	X		X	X	X		3							3
Sex	X		X	X	X		3							3
Type of activity	X	X <u>cc/</u>	X	X			3							3
Occupation	X	X <u>cc/</u>	X	X			3							3

Topic	Global recommendations (lists D and E) a/	Regional recommendations						Total number of regions	
		"Priority" topics				"Other useful" topics			
		ECE b/	ESCAP c/	IASI d/	ECA e/	ECWA f/ g/ h/	Number of regions		
<u>Occupants of living quarters, number and characteristics of aa/</u> (continued)									
<u>Head of household or reference person</u> (continued)									
Status in employment . . .		X <u>ac/</u>					1		1
Socio-economic group		X					1		1
Household	X	X <u>z/</u>	X	X	X		4		4
Occupants	X	X	X	X	X		4		4
Tenure	X	X	X	X	X	X <u>g/</u>	5		5
Tenure of land on which living quarters are located								X	1 1
Household head									
Marital status . .				X	X		2		2
Industry				X			1		1
National and/or ethnic group . .					X		1		1
Income level of head of household . . .								X X	2 2
Type of household .		X		X			2		2
Size of household .				X			1		1
Rental	X			X <u>o/</u>			1	X X	2 3
Single or shared occupancy		X					1		1
Household appliances				X			1	X	1 2

(Foot-notes on following page)

a/ Topics included in para. 3.15 of the present publication.

b/ Economic Commission for Europe, Recommendations for the 1980 Censuses of Population and Housing in the ECE Region, Statistical Standards and Studies, No. 31 (United Nations publication, Sales No. E.78.II.E.6).

c/ Economic and Social Commission for Asia and the Pacific, Asian and Pacific Recommendations for the 1980 Population and Housing Censuses (ST/ESCAP/52).

d/ Inter-American Statistical Institute, Program of the 1980 Census of America (COTA-1980): Standards for the Population and Housing Census (IASI document 7357a-3/16/78-25).

e/ Economic Commission for Africa. Report of the Working Group on Recommendations for the 1980 Population and Housing Censuses in Africa (E/CN.14/CPH/47).

f/ Economic Commission for Western Asia, Expert Group Meeting on Census Techniques, 12-16 December 1977, Final Report (E/ECWA/POP/WG.9/2).

g/ No recommendations made concerning demographic data to be related to housing information.

h/ No recommendations made for "other useful" topics.

i/ Construction material of walls, roof and floors.

j/ Materials of which specific parts of the building are constructed.

k/ Construction material of roof or floors.

l/ Period of construction.

m/ Year of construction.

n/ Type of vacancy.

o/ Rent and, for owner occupants, monthly payment for purchase of property.

p/ Availability of electricity.

q/ Included in the regional recommendations as "Occupancy status (rent-ownership)".

r/ Bathrooms.

s/ Kitchen.

t/ Type of cooking fuel.

u/ Two regions recommended the collection of data on the availability of a kitchen.

v/ Cooking facilities other than kitchen.

w/ Kitchen and cooking equipment.

x/ This topic appears in the regional recommendations as "Type of occupancy (housing - industry - commerce)".

y/ Main type of heating.

z/ Number, type and size of household.

aa/ This section of the table indicates the topics referring to occupants which were related to housing topics in the regional recommendations.

bb/ In the regional recommendations included as an element of the topic "Type of household".

cc/ In the regional recommendations included as an element of "Socio-economic group".