



UNITED NATIONS

ECONOMIC
AND
SOCIAL COUNCIL



LIMITED

ST/ECLA/Conf.43/L.2 (I)
12 July 1972

ORIGINAL: ENGLISH

C-1

ECONOMIC COMMISSION FOR LATIN AMERICA

SEMINAR ON THE PREPARATION AND USE OF POPULATION
AND HOUSING CENSUS TABULATIONS

Organized by the United Nations, through the Economic
Commission for Latin America, the Statistical Office
of the United Nations, the United Nations Trust Fund
for Population Activities with the collaboration of
the Latin American Demographic Centre

Santiago, Chile, 14-19 August 1972

PREPARATION AND USE OF POPULATION
AND HOUSING CENSUS TABULATIONS

PART ONE: HOUSING TABULATIONS

Prepared by the Statistical
Office of the United Nations

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
I. USES OF HOUSING CENSUS DATA	3
A. Uses at the national and local levels	3
B. Uses at the international level	6
II. PLANNING THE TABULATIONS	7
A. Co-ordination among census takers, data processors and housing programmers	8
B. Presentation of draft tabulations	9
C. Geographic classifications	9
D. Review of the draft tabulation programme	11
III. SOME NON-TECHNICAL ASPECTS OF DATA PROCESSING	20
A. Establishing priorities for the preparation of tabulations	20
B. Preparation of tabulations	22
C. Detail in which tabulations are prepared	24
IV. ANALYSIS OF HOUSING CENSUS DATA	25
A. Nature and purpose of the analysis	25
B. Examples of analytical tables	28
V. PUBLICATION OF CENSUS TABLES	46

	<u>Page</u>
ANNEX	
I Tabulations included in United Nations world recommendations for the 1970 housing censuses	48
II Tabulations included in IASI Regional Recommendations for the 1970 Housing Censuses	50
III Tabulations included in the Housing Census of Colombia - 15 July 1964	52
IV Tabulations included in the Housing Census of Colombia - 9 May 1951	54
V List of tables to be included in the forthcoming United Nations Yearbook of Housing Statistics	56
VI Canada: 1966 Census; Index of tables	58
VII Other tabulations proposed by ECLA and ILPES experts	60

INTRODUCTION

1. Countries are encouraged to formulate comprehensive policies and programmes dealing with housing and urban development as part of the national development plan, and to base these policies and programmes on reliable statistical data. Resources are scarce, however, and statistical inquiries costly. Censuses must therefore meet the challenge of greatly expanded data needs of social and economic planners and yet remain within budgets which governments will be prepared to finance. As a consequence it has become increasingly necessary to weigh each tabulation proposed for statistical inquiries in terms of its ultimate cost and its utility for planning purposes and to restrict the number of tabulations to a bare but significant minimum. In preparing a tabulation programme, the first consideration, therefore, should be the selection of the fewest number of tabulations designed to yield the most urgently required data.
2. As an extension of efforts to utilize resources sparingly and efficiently, it would be appropriate if steps could be taken to improve the effectiveness with which census data are used. Since the ultimate use of the data is the only real measure of the value of a census, a broadening of the scope and efficiency of use should be as of continuing concern to census takers as to the users themselves.
3. Ideally, the planning of a housing census should take as its point of departure the need (both experienced and anticipated) for housing census information at the local, national and international levels. A tabulation plan is then formulated based on these needs and taking account of the opportunities and restraints represented by available resources. In turn, the data requirements of the tabulation plan determine the topics for which data are to be collected in the census. Obviously, however, these phases of the census plan are not mutually exclusive and there will be considerable interplay in arriving at the many decisions that have to be made in connexion with each aspect.
4. This paper deals with some of the practical problems connected with the preparation and use of housing census tabulations. In most countries housing censuses are carried out together with population censuses. Substantively, population data are essential for the use and correct interpretation of housing information and administratively also the two operations have much in common. The paper concentrates on those aspects of the preparation and use of housing census tabulations which are of particular

/significance in

significance in connexion with housing and which are not ordinarily considered in connexion with population censuses. It covers the principal uses of housing census data, the planning of a census tabulation programme, some non-technical problems of data processing, the preparation of tables for the analysis of census information and publication of census results. General procedures to be followed for such tasks as editing, coding, quality control, etc., are not discussed.

I. USES OF HOUSING CENSUS DATA

5. Most directly, housing census information should provide insight into the social and economic aspects of the housing situation and the relationship of housing with other economic and social sectors. Because the uses to which data derived from housing censuses may be put have already been dealt with in some detail in United Nations publications, this section contains only an outline of the purposes for which the information may be used and provides references to the relevant sources.

6. The following paragraphs deal first with uses at the national and local levels and subsequently at the international level.

A. Uses at the national and local levels

7. Primarily, housing census data are employed to assess housing conditions as of the time of the census, to estimate housing requirements and to provide a statistical base for the formulation of housing programmes. For detailed information concerning the way in which housing census data may be utilized for these purposes, reference may be made to Statistical Indicators of Housing Conditions 1/, Methods of Estimating Housing Needs 2/ and the reports of regional seminars on the formulation of housing programmes and the statistics required for this purpose 3/. In general, comparison of information from one census with data from previous censuses provides a means of observing changes in the housing situation over time, of evaluating the effectiveness of housing programmes in progress during intercensal periods and enables future developments to be predicted.

1/ Statistical Indicators of Housing Conditions, United Nations publication, Sales No.: 62.XVII.7.

2/ Methods of Estimating Housing Needs, United Nations publication, Sales No.: 67.XVII.15.

3/ Report of the Seminar on Housing Statistics and Programmes for Africa, Copenhagen, Denmark, 31 August-15 September 1966 (United Nations publication, Sales No.: E.68.II.K.7).

Report of the Seminar on Housing Statistics and Programmes for Asia and the Far East, Copenhagen, Denmark, 25 August-14 September 1963 (United Nations publication, Sales No.: 65.II.F.12).

Report of the Latin American Seminar on Housing Statistics and Programmes, Copenhagen, Denmark, 2-25 September 1962 (United Nations publication, Sales No.: 63.II.G.14).

8. It may be worthwhile, however, to consider more specifically the types of questions which data from the housing census will be called upon to answer at the nation and local levels. Following are some examples:

(a) In what types of housing is the population accommodated? What are the characteristics of persons occupying the various types of living quarters? Why are some occupying sub-standard 4/ housing? How many persons and how many house-holds are homeless? Why are they homeless? What possibilities exist for those occupying sub-standard housing and also for homeless persons to take advantage of various kinds of housing programmes? To what extent are they likely to be able to help themselves?

(b) How does the available supply of acceptable 5/ housing compare with the number of households in the population?

(c) What is the general level of quality of the housing supply? What proportion is of permanent construction, semi-permanent, squatter housing, etc.?

(d) How old is the existing stock of dwellings and how long is it likely to last? What replacement rates should be allowed for in preparing housing programmes?

(e) How many dwellings are supplied with: water, toilet, electricity, bathing facilities, cooking facilities?

(f) What are the levels of occupancy in dwellings in terms of:
persons per room
households per dwelling
size distribution of dwellings vis-a-vis size distribution of households?

(g) Under what arrangements do households occupy their accommodation? How many are owners, tenants, sub-tenants?

(h) How many dwellings are vacant and why are they vacant?

(i) What are the rates of household formation and what rates of dwelling construction are necessary to keep pace with it?

4/ "Sub-standard" in terms of nationally established criteria.

5/ "Acceptable" in terms of nationally established criteria.

9. Replies to these questions obtained from census results may be compared with replies to similar questions obtained from previous censuses to furnish an indication of trends in the housing situation.

10. Two further questions to which housing data will give rise rather than answer are:

(a) How do rates of construction required in (d) and (i) compare with rates being attained?

(b) What levels of investment would be required for rates of construction required in (d) and (i) and how does this level compare with levels of investment attained? What do the results of this comparison suggest with respect to future improvement or deterioration in the housing situation?

11. The possibility of utilizing the census data for the purposes described above depends upon the form and content of census tabulation. Those recommended by the United Nations to be prepared in a housing census are listed in Annex I to this paper. They are described in Principles and Recommendations for the 1970 Housing Censuses 6/ and elaborated upon in Topics and Tabulations for Housing Censuses 7/. In these publications the use of each of the proposed tabulations is described in some detail and it will be seen that they furnish a basis for many of the uses suggested in the foregoing paragraphs. Attention may be drawn, however, to the need for even greater integration of housing census data with non-housing series than has been achieved either in Principles and Recommendations or in the Handbook.

12. Although the housing census can be relied upon to furnish basic housing information, it is clear that if housing is to be viewed within the context of overall social and economic development, housing data need to be related to data reflecting other areas of activity at those points where the linkage is likely to be of significance. Significant in connexion with an assessment of housing conditions, for an examination of the factors which have a bearing on these conditions and in revealing the effects of developments in the housing sector on other sectors.

6/ Principles and Recommendations for the 1970 Housing Censuses, United Nations publication, Sales No.: 67.XVII.4.

7/ Handbook of Population and Housing Census Methods, Part III, United Nations publication, Sales No.: E.70.XVII.6.

13. The census tabulations proposed in the Principles and Recommendations and in the Handbook currently incorporated information on population, households and families as well as demographic, economic and social data concerning households heads. However, these non-housing data are limited to information which normally can be derived from the population census. It seems that consideration should be given to the possibilities which exist for information from other sources to be incorporated into housing census tabulations. Data from the system of current housing statistics are directly related to housing conditions, as are certain items of information from the system of national accounts. The production and cost of building materials represents another area from which data could usefully be related to information from the housing census.

14. In connexion with the need for greater integration of housing information with other series, it is pertinent to note that the United Nations Statistical Office is presently engaged in the development of an integrated system of demographic, manpower and social statistics. The purpose is to develop a comprehensive and coherent body of data for purposes of assessing social conditions and formulating and evaluating social policies and programmes. It has been concluded that in order to furnish information for an integrated approach to social and economic problems, the appropriate aspects of the system of social statistics should be correlated with corresponding series of the systems of national accounts and balances. Preliminary proposals setting forth the items of data, classifications and social indicators of each of the sub-systems to be integrated, including housing, are contained in a paper prepared for the Working Group on a System of Demographic and Social Statistics which met from 10 to 14 May 1971 8/.

8. Uses at the international level

15. A world view of housing conditions is becoming increasingly important. This is reflected in the request of the General Assembly (Resolution 2598 (XXIV)) for a periodic World Housing Survey. As one example of the use of housing census information at the international level it may be noted that the forthcoming Yearbook of Housing Statistics, which is being compiled mainly on the basis of information derived from national housing censuses, will be the principal source of basic and current statistics for this survey.

8/ A System of Demographic, Manpower and Social Statistics Series, Classifications and Social Indicators, United Nations document, ST/STAT.49.

16. World compilations of housing data and the possibility which they afford of making inter-country comparisons are also becoming increasingly important as greater emphasis is placed on international and multi-lateral programmes for the improvement of housing conditions by such organizations and agencies as the World Bank, the United Nations Development Programme, the Centre for Housing, Building and Planning and the United States programme of assistance, (Assistance for International Development - AID).

17. The tables to be included in the forthcoming Yearbook of Housing Statistics attempt to answer similar questions at the international level to those already proposed for the national and local levels. However, in the case of the Yearbook, the effort has been limited by the absence for some series, of data for a sufficiently large number of countries. A list of the tables to be included in the Yearbook is contained in Annex V. (Many correspond to those recommended for national censuses; others may be worth considering as additions to the recommended tabulations.)

II. PLANNING THE TABULATIONS

18. Planning of the tabulations programme should be undertaken by census takers and processing personnel in close collaboration with the principal users of the data, especially the agency responsible for housing in the country concerned. The requirements of this agency in terms of topics for which data are to be produced, as well as the classifications and geographic divisions according to which data are required may be expected to influence significantly the form and content of the tabulation programme.

19. It must be borne in mind that the planning, processing and publication of housing census tabulations as well as the selection of topics to be investigated, formulation of the census questions and drafting of instructions for the enumeration are inter-related phases of the same overall operation. Failure to plan and carry through these phases of the census within a well co-ordinated framework can result in costly delays and serious deficiencies in the final tabulations. For example, even a slight revision in the classification of replies concerning a topic in the questionnaire could require extensive changes in data-processing procedures unless those responsible for data processing are aware of the revision during the planning stage. It is also especially important that the required units of tabulation be precisely established and that the data provided from the questionnaires refer to those units. Obviously, the closest working arrangements will need to be established and maintained throughout the

/census operation

census operation between those responsible for the preparation of questionnaires and the drafting of enumeration instructions and those responsible for data processing.

20. Although the principal concern here is the use of the data contained in the tabulations, census takers should also consider the processing and use of information obtained as a by-product of a census of housing. For example, control lists for population and housing censuses very often furnish information needed as a starting point for other inquiries, particularly censuses of distribution and censuses of agriculture. When and in what form the information is to be made available to those responsible for these inquiries should be considered as part of the overall tabulation programme of the population and housing censuses. Where census control lists are prepared in sufficient detail (as in Chile, for example) they may also furnish a valuable source of land-use information, if fully exploited. Here also, the form in which the data are to be provided and the timing of the various stages of the undertaking need to be established within the overall processing schedule.

A. Co-ordination among census takers, data processors and housing programmers

21. Before attempting to draw up a tabulation programme it will be necessary for personnel of the Central Statistical Office not only to meet with the various users but to familiarize themselves with the work in housing being undertaken in both the private and public sectors. A knowledge of the principal aspects of the national housing programme will enable statistical office personnel to understand more clearly the requirements of housing personnel and to demonstrate, if necessary, how various types of information may profitably be used for assessing housing conditions, estimating housing needs and preparing, implementing, and evaluating housing programmes.

22. To exploit fully the advantages afforded by electronic tabulating equipment, census personnel should also have at least a general understanding of the characteristics and capabilities as well as the limitations of such equipment, and also be thoroughly aware of the statistical needs of the users of census data; while data processors should have familiarized themselves with the basic concepts underlying the data with which they are dealing.

B. Presentation of draft tabulations

23. Processing personnel may be completely familiar with the subject matter of the census; frequently they are not. It is therefore essential that census takers should be explicit with respect to the form and content of tabulations required and that there should be no room for misinterpretation. Sketch outlines similar to those included in Principles and Recommendations and in the Handbook provide a clear and convenient means of communication. The tables included in Principles and Recommendations and listed in Annex I are those considered most useful for housing censuses. They are repeated in the Handbook together with possible alternatives and additions based on studies of census experience. Those included in the IASI regional programme are shown in Annex II.

24. Each outline should be accompanied by a statement of the unit of tabulation, the topics to be included and the classifications of the topics to be employed, as well as the geographic divisions according to which the data are to be produced. Table outlines may be used to indicate for which geographic areas data are to be published and for which areas data are to be stored but not published.

25. In practice it has also been found useful to indicate for each tabulation the question that needs to be included in the census in order to obtain the data required for the tabulation. Such a procedure helps to ensure consistency between census questions and the final product - in this case the data which appear in the tabulations. Since population data included in housing tabulations are usually derived from the population census, the necessary questions recorded with housing tabulations will include some which are to be included in the population census. This contributes to a co-ordinated approach with respect to preparations for the housing census and preparations for the population census and serves as a reminder that concepts and definitions employed to collect population census data must be consistent with the needs of both the population and the housing census.

C. Geographic classifications

26. Because of the physical aspects of housing programmes and the urban plans of which they are a part, the system of geographic divisions utilized in tabulating census information is of basic significance to the usefulness of the final data output. Since the same geographic base is recognized for carrying out both the population and housing censuses, decisions concerning the divisions to be observed during the enumeration must be

/arrived at

arrived at on the basis of close collaboration between those planning the two inquiries. It must be decided which areas are to be observed for the collection of data, which will be utilized for purposes of tabulation, and for which areas data are to be published.

27. Flexibility with respect to the geographic areas for which data can be made available appears to be increasingly important. The areas for which data are required usually correspond to zones of jurisdiction for various services and other purposes. They may include divisions recognized for administrative purposes by central and local government, school districts, health districts, water districts, regions of significance for economic planning, special analytical areas (sometimes referred to as "census tracts"). These areas may be contiguous, they may overlap, they may be incorporated one within the other or they may be isolated from one another. For each of such areas some information from both the population and the housing census may be required. At certain levels (local, regional, national) some items of data from population and housing censuses will also need to be considered as part of a co-ordinated array of information assembled for planning purposes from many different sources.

28. For example, for an assessment of housing conditions and the preparation of a housing programme, data from the housing census would need to be considered along with such other information as data on construction, population, national accounts, finance, industry, transport, wages and salaries, household income and expenditure. Furthermore, since population and housing censuses are carried out normally at ten-year intervals, needs are likely to arise during the inter-censal period for information according to areas the need for delineation of which was not foreseen during the planning of the census.

29. The most promising approach to flexibility with respect to the geographic areas for which data can readily be made available appears to be the adoption in some countries (United States and Canada as well as several European countries) of geographic co-ordinates as a means of identifying units of enumeration. Such an approach not only facilitates the tabulation of data from a population and housing census for almost any desired area but it also provides the means of linking data from the population and housing censuses with data from other inquiries in which a spatial distribution of data is recognized.

D. Review of the draft tabulation programme

30. When the content and form of the census tabulations have been more or less established, it will be useful to consider the tabulation programme as a whole. The programme will need to be checked for internal consistency as well as consistency with the tabulation programmes of previous national censuses and with those contained in world and regional recommendations.

(i) Testing the tabulation programme for internal consistency

31. Table A shows the type of general analysis that could be employed to provide an overall view of a tabulation programme in the course of preparation. In this case the tabulations shown are those included in Principles and Recommendations for the 1970 Housing Censuses 9/ and listed in Annex I, but the analysis would be equally suitable for any national tabulation programme.

32. First, it provides the opportunity to see at a glance the units of tabulation employed to produce the tabulations. Differences in the unit of tabulation employed from one table to another may be readily seen and the reasons underlying these differences may be checked.

33. It also presents an overall view of the geographic classifications employed throughout the tabulation programme. Because the programme included in the Principles and Recommendations is a theoretical exercise, there are no differences in the geographic classifications from one tabulation to another. In practice, however, variations would undoubtedly exist. Some data are required for smaller geographic divisions than others and it is very often necessary to tabulate certain types of information for localities of varying sizes. "Special analytical areas" ("census tracts" as they are termed in some countries) are also delineated in some cases as a means of producing information for areas of special interest. In addition, information may be required for economic regions or for areas of particular significance for urban planning in which case these also would form a part of the system of geographic classification.

34. With respect to topics, table A provides the opportunity to ensure that provision has been made to tabulate all topics investigated in the census without omission and that unnecessary duplication of topics throughout the tabulations does not occur. It also furnishes the opportunity to see to what extent data for each of the topics are utilized in the tabulation programme.

9/ Op.cit.

Table A

TABULATIONS INCLUDED IN PRINCIPLES AND RECOMMENDATIONS FOR THE 1970 HOUSING CENSUSES ^{a/} SHOWING UNITS OF TABULATION, GEOGRAPHIC DIVISIONS
ACCORDING TO WHICH DATA ARE TABULATED AND TOPICS COVERED

Tabulation No	Units of tabulation						Geographic divisions						Topics covered																																				
	Living quarters			Households			Persons			Country, Urban/Rural	M.A.Div. Urban/Rural	M.U.Div. Urban/Rural	Special Analytical Areas	Localities, 1 000	5 000	10 000	Location	Living quarters - type of	Ownership	Occupancy	Rooms - number of	Bedrooms - number of	Water	Toilet	Lighting	Bathing	Cooking	Building - type of	Constr. material of walls	Year or period of constr.	Households - number of	Conjugal fam. nuclei - N° of	Occupants - number of	Head of household - age	sex	Marital status	National/ethnic origin	Occupation	Industry	Activity	Female	Rent paid	Homeless persons						
	All	Occupied	Conventional dwellings	All	Occupied	Vacant	Rented	All	In living quarters																																			In dwellings	In rented dwellings	In households	In households	In living quarters	In dwellings
										Occupied	Vacant	Rented																																					
1	X						X	X			X	X	X	X	X	X																											X						
2							X				X	X	X	X	X	X																												X					
3							X				X	X	X	X	X	X																												X					
4			X								X	X	X	X	X	X			X																									X					
5								X				X	X	X	X	X													X																				
6	X							X				X	X	X	X	X					X																												
7		X						X				X	X	X	X	X							X																										
8				X								X	X	X	X	X								X																									
9												X	X	X	X	X																																	
10				X								X	X	X	X	X			X																												X		
11			X									X	X	X	X	X											X	X	X																				
12							X				X	X	X	X	X	X																															X		
13				X							X	X	X	X	X	X							X	X																						X			
14				X							X	X	X	X	X	X					X																												
15				X							X	X	X	X	X	X																																	
16				X							X	X	X	X	X	X																																	
17							X					X	X	X	X	X																																X	
18								X			X	X	X	X	X	X													X																			X	

^{a/} Opacit.

* Priority topics and tabulations.

S: Topics collected on a sample basis (not indicated in the principles).

35. Although in the Principles and Recommendations, topics are not specifically identified according to whether they might be collected on a sample basis, an indication of sampling appears in table A since it would be useful in practice to record it. For example, it may be found that a topic enumerated on a 100 per cent basis is cross-classified with a sample topic. This presents no particular problem. However, if this is the only tabulation in which the 100 per cent topic appears it may be unnecessary to collect the information from all units of enumeration and it may also be collected only on a sample basis.

36. In the table, priority topics and tabulations are indicated with an asterisk. In order to relate information for certain topics, it is sometimes necessary to include data for high priority topics in tabulations which are of lower priority or data for low priority topics in high tabulations. Nevertheless, there should be overall consistency with respect to priority 10/ of topics and tabulations.

37. Table B shows the classification of living quarters employed in each of the tabulations outlined in Principles and Recommendations for the 1970 Housing Censuses 11/. It provides a means of summarizing the categories employed throughout the tabulation programme and of checking the consistency between these categories and the categories provided for the identification of types of living quarters in the census questionnaire. It should be verified that all the groups shown in the questionnaire are in fact required for the tabulation programme and that none of the groups in the tabulation programme are omitted from the questionnaire. Differences in the classifications employed from one table to another can be easily seen and the reasons for these differences can be checked.

10/ "Priorities" in this case refers to the need to collect the topics indicated as opposed to other topics and the need to produce the tabulations indicated rather than other tabulations. Such priorities will not necessarily coincide with priorities establishing the time of preparation which must be determined on the basis of the urgency with which various tabulations are required by the users.

11/ Op.cit.

Table B

TABLATIONS INCLUDED IN PRINCIPLES AND RECOMMENDATIONS FOR THE 1970 HOUSING CENSUSES ^{a/} SHOWING PRINCIPAL TOPICS COVERED AND TYPES OF LIVING QUARTERS FOR WHICH DATA ARE TABULATED

Population No	Principal topics covered	Type of living quarters										Living quarters other than housing units					
		Housing units						Not intended for habitation				Total	Hotel	Insti- tution	Camp	Other	
		Total	Dwelling	Mobile	Impro- vised	Per- manent	Other										
*1.	Type of living quarters	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
*2.	Demographic characteristics of hhd. head	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
*3.	Activity, occupation, sex of hhd. head	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
*4.	N° of rooms, N° of occupants		X														
*5.	N° of households per dwelling		X ^{b/}														
*6.	Water supply system	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
*7.	Toilet facilities	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
*8.	Type of lighting		X ^{c/}														
*9.	Tenure of household		X ^{d/}														
*10.	Type of vacancy		X ^{e/}														
*11.	Year of construction, type of bldg. constr. mat.		X														
12.	Activity, industry, sex of hhd head	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13.	Type of owner		X ^{f/}														
14.	N° of bedrooms, N° of occupants		X ^{g/}														
15.	Cooking facilities		X ^{g/}														
16.	Bathing facilities		X ^{g/}														
17.	Rent paid for dwellings		X ^{g/}														
18.	Rent paid by households		X ^{h/}														

* Priority tabulations.
^{a/} United Nations publication, Sales No: E.67.XVII.4.
^{b/} Households in dwellings.
^{c/} Occupied dwellings.
^{d/} Households and persons in dwellings.
^{e/} Vacant dwellings.
^{f/} Households occupying dwellings.
^{g/} Rented dwellings.
^{h/} Households in rented dwellings.

(ii) Testing a national tabulation programme for consistency with previous censuses and with world and regional recommendations

38. Since housing censuses are usually carried out at regular intervals, each census contributes to a time series of data. It is therefore important to compare the content of the draft tabulation programme with the tabulations of previous censuses and to consider as far as possible what developments are likely to occur in the tabulation programmes of future censuses.

39. The system of census tabulations recommended by the United Nations at the world level and those recommended by IASI at the regional level were established largely on the basis of census experience and they should be of assistance to countries in preparing national programmes. It will therefore be useful for countries planning a housing census to compare their draft tabulation programmes with those recommended. To meet the particular requirements of each country, national tabulation programmes may be expected to differ both in content and scope from the regional and world recommendations but a systematic comparison provides the opportunity to verify that whatever differences exist are, in fact, intentional and not simply the result of oversights.

40. Table C has been prepared as an illustration of the way in which a draft tabulation programme might be compared with previous censuses and with regional and world recommendations. It is assumed that the published tables for the 1964 housing census of Colombia are those which are at the drafting stage. They are included in table C along with tabulations prepared in the 1951 housing census (the only previous census of housing carried out in that country), tabulations recommended by the United Nations for the 1970 censuses and tabulations recommended by IASI for the 1970 censuses. The numbers in the columns are the identifying numbers of the tables in each programme. Tabulations recommended by the United Nations and IASI 12/ are shown in Annexes I and II. Those prepared in the 1951 and 1964 censuses of Colombia 13/ appear in Annexes III and IV.

12/ Informe de la IX Sesión de la Comisión de Mejoramiento de las Estadísticas Nacionales (Coins).

13/ II Censo Nacional de Edificios y Viviendas (Julio 15 de 1964), Departamento Administrativo Nacional de Estadística, Colombia, 1968.

Resumen del Censo de Edificios y Viviendas de 1951, Departamento Administrativo, Nacional de Estadística, Colombia.

Table C

COLUMBIA: COMPARISON OF TABULATION PROGRAMME (1964) WITH TABULATIONS OF PREVIOUS
CENSUS AND WITH TABULATIONS CONTAINED IN WORLD AND REGIONAL RECOMMENDATIONS

Principal topics included in the table	Numbers of tables included in:			
	Census plans 1964	Previous censuses 1951	Recommendations	
			Regional (IASI)	World (United Nations)
Number of buildings	1a/	1a/	-	-
Buildings X use X number of floors	3	2b/	-	-
Buildings X use or purpose	4	3.4	-	-
Buildings X use or purpose X material of construction of walls	5	5	14g/	11d/
Buildings X use or purpose X material of construction of floor	5	5	14g/	-
Buildings X use or purpose X material of construction of roof	5	5	14g/	-
Buildings X use or purpose X number of dwellings	6	6e/	-	-
Living quarters X type X occupancy	7	9f/	1g/	1g/
Occupied housing units X number of family households	8	11h/ 14i/	1g/	5j/
Occupied housing units X water	9	19k/	4l/	6m/
Occupied housing units X toilet	9	8 19k/	6n/	-
Occupied housing units X bath	9	8 19k/	5o/	16p/
Occupied housing units X electric lighting	9	19k/	8q/	8r/
Occupied housing units X permanency of construction X water X number of family households	10	-	4l/	6m/
Occupied housing units X permanency of construction X toilet X number of family households	10	-	6n/	7p/
Occupied housing units X permanency of construction X bath X number of family households	10	-	5o/	16p/
Occupied housing units X permanency of construction X electric lighting X number of family households	10	-	8q/	8r/
Occupied housing units X permanency of construction X water X number of occupants	11	-	4l/	6m/
Occupied housing units X permanency of construction X toilet X number of occupants	11	-	6n/	7p/
Occupied housing units X permanency of construction X bath X number of occupants	11	-	5o/	16p/
Occupied housing units X permanency of construction X electric lighting X number of occupants	11	-	8q/	8r/
Occupied housing units X permanency of construction X water X number of rooms	12	-	4t/	6m/
Occupied housing units X permanency of construction X toilet X number of rooms	12	-	6n/	7p/
Occupied housing units X permanency of construction X bath X number of rooms	12	-	5o/	16p/
Occupied housing units X permanency of construction X electric lighting X number of rooms	12	-	8q/	8r/

/Table C (continued)

Table C (continued)

Principal topic included in the tables	Number of tables included in:			
	Census plans 1964	Previous censuses 1951	Recommendations	
			Regional (IASI)	World (United Nations)
Occupied housing units X number of rooms X number of occupants	13	7u/ 12 13v/ 18w/ 20w/	2g/	4j/
Occupied housing units X type of tenure	14	9.10x/ 13y/	2g/	9v/
Occupied housing units X average number of persons per room	15	15z/ 16z/	-	-
Living quarters other than housing units X type	16	17	1	1a/
Occupied housing units + households + occupants X type of housing unit characteristics of household head	-	-	11	2b/
Occupied housing units + households + occupants X type of housing unit X economic characteristics of household head	-	-	12, 13	3 12
Vacant dwellings X type of vacancy	-	-	9	10
Occupied housing units X number of bedrooms X number of occupants	-	-	10	14j/
Occupied units + households + occupants X type of housing unit X cooking facilities	-	-	7	15j/
Occupied housing units X type X number of rooms	-	-	3	17j/ 18e/
Households X type of owner X tenure X piped water X toilet	-	-	2g/	13d/

a/ Number of buildings + number of persons.

b/ Buildings X number of floors.

c/ Occupied dwellings X period of construction X type of building X construction material of walls + floors + roof.

d/ Dwellings X period construction X type of building X construction material of walls.

e/ Buildings X number of dwellings.

f/ Housing units X occupancy.

g/ Occupied housing units X tenure X number of persons X number of rooms.

h/ Occupied housing units X number of households X number of rooms.

i/ Occupied housing units X number of rooms X number of households.

j/ Data tabulated for dwellings.

k/ Living quarters other than housing units.

Table C (concluded)

- l/ Occupied housing units + households + occupants X type of housing unit water supply
- m/ Data on water supply tabulated for living quarters + households + occupants X type of living quarters.
- n/ Occupied housing units + households + occupants X type of housing unit X toilet.
- o/ Occupied housing units + households + occupants X type of housing unit X bath or shower.
- p/ Occupied dwellings + households + occupants X bath or shower.
- q/ Occupied housing units + households + occupants X type of housing unit X electric lighting.
- r/ Data on electric light tabulated for occupied dwellings + occupants on tenure.
- s/ Data on toilets tabulated for occupied living quarters + households + occupants X type of living quarters.
- t/ Households + occupants X type of living quarters X demographic + economic characteristics of household head.
- u/ Occupied housing units X number of rooms.
- v/ Occupied housing units X tenure X number of occupants.
- w/ Living quarters other than housing units by number of rooms.
- x/ Occupied housing units X tenure X (lighting + bath).
- y/ Data on tenure tabulated for households and persons.
- z/ All housing units.
- a¹/ Living quarters X type X (number of households + number of family nuclei + number of persons.
- b¹/ Households + occupants X type of living quarters X demographic characteristics of household head.
- c¹/ Data tabulated for households X number of households per dwelling.
- d¹/ Households X type of owner of dwellings X tenure of household X water X toilet.

41. It will be noted that tables 5, 9, 10, 11 and 12 of the Colombia censuses each incorporate several tabulations. To facilitate comparisons these tables are broken down so as to show the components separately. The 1951 Census in Colombia was a census of housing combined with a census of buildings. Only the housing census tabulations are considered here.

42. Following the general comparison afforded by table C, the analysis would need to be extended so as to provide for a more detailed examination of geographic classifications as well as of definitions and classifications in tabulations containing similar data.

43. From table C it can be seen that the scope of the 1964 census of Colombia goes beyond that carried out in 1951. Although both the 1951 and 1964 censuses include tabulations of building not included in either the world or regional recommendations, they fall short of regional and world recommendations in other respects. There are no tabulations covering demographic and economic data for household heads, reasons for dwellings being vacant, number of bedrooms, cooking facilities, rent paid or type of owner.

44. It may be noted that the tabulation of demographic and economic data in relation to type of housing occupied is considered of first priority in both regional and world recommendations, as are tabulations of data on vacant dwellings by reason for vacancy. The tabulation of data on bedrooms, cooking facilities and rent paid are proposed as second priority in the world recommendations, but of first priority in the regional proposals. Tabulation of data on type of owner is suggested as second priority in the world programme and not recommended at all in the regional recommendations.

(iii) Testing the housing census tabulation programme for consistency with tabulations from other sources

45. In addition to the analyses suggested in tables A, B and C, it is necessary to check the consistency of draft census tabulations with tabulations utilized or planned for the production of data from other sources; data which may need to be related at a later stage to census data.

46. For example, the system of current housing statistics produces information which is complementary to housing census data in that it reflects housing activity and may be utilized (provided definitions and classifications are consistent) to update at least partially the bench-mark

/data furnished

data furnished by a housing census. The concepts employed in the system of national accounts to indicate the level of investment in dwelling construction should be checked for consistency with the concept of "dwelling" employed in the census and with the concept of "construction" observed to record dwelling construction in the system of current housing statistics.

47. Consistent tabulations also permit information from one inquiry to be used to test the reasonableness of data from another. Thus, for example data obtained from the housing census on year of construction of dwellings may be compared with data on dwelling construction collected by means of the system of current housing statistics.

III. SOME NON-TECHNICAL ASPECTS OF DATA PROCESSING

48. This section deals with some non-technical problems of data processing, particularly those which require for their solution the collaboration of census personnel and data processing personnel. It is hoped that it may serve as a starting point for the collection of experience aimed at demonstrating specific areas of common ground where collaboration between census takers and data processors is of particular importance.

A. Establishing priorities for the preparation of tabulations

49. Broadly, the establishment of priorities involves arrangements for the preparation of preliminary results, advance tabulations, final tabulations and special tabulations.

50. Within these categories, depending upon the volume of data to be processed and the capacity of equipment, a secondary rank of priorities may be required; particularly in the case of final tabulations, which are likely to be voluminous, and special tabulations which may be for geographic areas not utilized in preparing tabulations included in the general programme and which are likely to include a wide-range of subject matter.

51. Priority with respect to preparation and publication of housing census tabulations should be established as far as possible on the basis of urgency of need. Usually national and urban planners as well as those responsible for the preparation of housing programmes will be among the users who require information for certain topics or for particular areas on a

/priority basis.

priority basis. However, in the interests of overall timeliness and also economy, a logical sequence with respect to processing must also be maintained. The determination of priorities must therefore be established jointly by census takers and data processors.

(i) Preliminary results

52. Almost all countries make an effort to issue a preliminary count of the total housing inventory and occupants at least by major areas of the country as soon as possible after the completion of enumeration. Preliminary results are often prepared manually from census control lists as the enumeration proceeds. They should be considered as part of the total tabulation programme and their preparation scheduled accordingly. It may be noted that preliminary data which show only the total number of living quarters with no further breakdown are of little use and that the compilation of preliminary results may actually represent a waste of resources unless the information on living quarters is classified by at least broad types distinguishing, as a minimum, housing units from other living quarters such as hotels and institutions and, within the housing unit category, identifying conventional dwellings from other types.

(ii) Advance tabulations

53. It must be decided whether advance census results are to be processed from a sample of the data collected and, if so, which tabulations are to be made available in this way. In some countries no advance results are produced, all efforts being devoted to preparation of final tabulations.

(iii) Final tabulations

54. Because final tabulations represent the bulk of census information and the most time-consuming task as far as data processing is concerned, establishment of well-founded priorities within this group and the preparation of a logical and efficient plan of data processing will significantly affect the timeliness with which data for the entire census become available to the users.

(iv) Special tabulations

55. It is important to consider special tabulations as an integral part of the total tabulation programme. In some cases urgency of need may require that these tabulations be produced before the general tabulation

/programme is

programme is completed. Even though this may not be the case, it is frequently more efficient to produce some of the special tabulations during the processing of the general tabulation programme rather than waiting for this to be completed.

B. Preparation of tabulations

(i) Identification and description of units of tabulation

56. For purposes of data processing it is necessary during the programming stage to identify each unit of tabulation (living quarters, dwellings, occupied dwellings, households, etc.), to ensure that it corresponds exactly to the units for which data are to be collected or that it can be derived from them and then to describe it according to:

- (a) The tabulations in which it appears;
- (b) The attributes according to which it is to be tabulated;
- (c) The group of tabulations to which each of the tabulations identified in (i) above belongs (i.e., preliminary tabulations, general tabulations, special tabulations, etc.);
- (d) The time when the processing of each tabulation is scheduled to take place (i.e., where the tabulation appears in the overall time schedule established for processing the census data).

57. Suppose for example, that the unit of tabulation is "occupied dwellings" and the tabulations in M45 are those which comprise the general programme. The unit of tabulation, "occupied dwellings", is first identified as a unit of tabulation and one which will be available from the questionnaire, then (1) identified as the unit to be used for the processing of tabulations 8, 14, 15 and 16; (2) it will be noted that these tabulations are part of the general programme, that tabulation 8 is a "recommended" or first priority tabulation and that tabulations 14, 15 and 16 are "other useful" or of second priority; (3) the time when tabulations 8, 14, 15 and 16 are scheduled for processing will be noted against the unit of tabulation.

58. When this information is assembled systematically for each unit of tabulation which is to be employed, it enables a programme to be devised which takes into account the overall requirements with respect to the time when tabulations are to be made available as well as the possibilities

/which exist

which exist to exploit the relationship of one tabulation with another. For example, since the same unit of tabulation is to be used to produce Tabulations 8, 14, 15 and 16 it may be possible to process all four tabulations simultaneously and in the same time that Tabulation 8 could be processed alone. So, even assuming that Tabulation 8 is more urgently required than the other 3, there is no disadvantage in simultaneous tabulation and considerable saving with respect to overall processing time.

59. The relationship may be carried further. In order to tabulate occupied conventional dwellings, all dwellings must be checked by the computer to select those which are occupied. Therefore, it may be possible to include in the foregoing operation Tabulations 4 and 11 which refer to all dwellings (both occupied and vacant). Furthermore, since a selection of occupied dwellings involves assignment by the computer of vacant dwellings to a separate category, it may be efficient as well as economical to add to the operation the processing of tabulation 10 which refers to vacant units.

60. It can easily be seen that although census personnel decide, according to the needs of the users, the sequence in which data should be made available, situations are likely to arise where logic and economy suggest a change in the order of priority. This is not to say that these considerations necessarily over-ride all others but obviously the cost of producing data in a certain time sequence must be considered and also the probable effect of a particular sequence on the total time which will be required to carry through the entire programme. On the other hand through careful programming it may be possible to produce for the census taker not only the tabulations he requests on a priority basis but others which can be produced simultaneously without using additional time. Collaboration between data processors and census takers can pay off in terms of timely availability of data, efficiency and economy.

(ii) Integration with census data of information from previous censuses

61. In some cases it will be useful to produce tables with certain data from previous censuses as well as from the current census. Although the results are likely to furnish valuable insights into trends and changes over time, the introduction into the census tabulations of data from previous census is likely to be time-consuming and therefore costly. It needs to be considered for which topics such tables would be most useful and at what level of geographic detail they should be prepared. With the continuing use of computers it will become more usual for historical data to be available on tape, thus facilitating the preparation of tables showing a time series of information.

C. Detail in which tabulations are prepared

52. The geographic classification according to which each tabulation is required will have been determined during the preparation of the tabulation programme (see paragraph 26). If at the lowest level of the geographic hierarchy for which the information is to be tabulated the areas are small - as they frequently have to be to meet the needs of housing programmers - it must be considered in how much detail topics should be classified at the various levels. It may not be possible to carry through a uniform classification of topics from the national level on down to the smallest area for which data are to be produced, particularly if cross-classifications are involved.

53. Take for example, Tabulation 2 of the tabulations proposed in M45. Households and persons in households are tabulated by type of living quarters plus homeless (9 categories), cross-classified by sex (2 categories), marital status (4 categories) and age (5 categories). The total number of possible cells to which each unit of tabulation may be assigned is therefore 360. It can be readily seen that where the population of areas is small in comparison to the detail in which topics are to be classified and cross-classified, many cells in the resultant tabulation will be vacant. Apart from the expense involved in producing a detailed matrix for which very little information is available, the results are likely to be extremely difficult to read and interpret. It may be useful, therefore, to consider at the programming stage to what extent and at what level of geographic hierarchy the classification of topics should be consolidated so as to produce compact results.

IV. ANALYSIS OF HOUSING CENSUS DATA

64. In the course of research for this paper it was noted that for many countries no analytical study of the housing census was available. It may be that studies were published separately from tabulations and were not available in the Statistical Office or perhaps they were prepared for internal use only and not published. As a means of increasing the usefulness of housing census data and to avoid misinterpretation of the information, it is suggested that whatever analyses are prepared should be published, either in the same volume as the census tabulations or, in order to avoid delaying publication of the tabulations, in a companion volume. If the analysis is published separately, it would be helpful if a reference could be placed in the publication containing the general tabulations clearly identifying the publication in which the analysis may be found.

A. Nature and purpose of the analysis

65. The analysis of census data serves a dual purpose. It may simply summarize the results of the census; bringing into focus the principal aggregates and enabling their significance to be more clearly discerned. However, the analysis may, and probably should, go beyond a simple recapitulation of the data derived from the census. It should attempt to extract as much useful information as possible from the raw data by exploring the relationships among various topics through the computation of ratios and rates and by relating census data to data from previous censuses or to information from other sources.

66. In planning a programme of analysis it should be remembered that the principal users of housing census data are generally not statisticians. The analysis should therefore be of such a nature that it permits users with little statistical training to readily grasp the significance of the information. Consultation with personnel of the national housing agency should be of assistance in establishing the main outlines of the study so as to ensure that it will be of practical value in formulating housing policy and for the preparation, execution and evaluation of housing programmes.

67. The questions to be answered by the analysis of housing census data will be similar to those outlined at the beginning of this paper. Analytical tables aimed at answering these questions should be drafted during the preparation of the overall tabulation programme. However, not all requirements in this respect can be foreseen and some flexibility should be permitted in order to provide for additional tables should these appear to be necessary as the analysis proceeds.

/68. It

68. It is of significance for analytical purposes that the storing of data on magnetic tape increases considerably the facility with which special tabulations may be produced. Whereas with conventional equipment it was essential to establish all of the tables before processing began, it is now possible to prepare with some facility tabulations the need for which may not be foreseen until the general tabulations for the census become available. Advantage should also be taken of the fact that rates, ratios and other computations can easily be calculated by computer, and preparation of these should be planned according to the needs of analysts. Analytical studies need not be confined solely to the information obtained in the housing census but may draw upon data from other sources to make possible a clearer interpretation of the information in the housing census.

69. For each table included in the analysis it should be considered to what extent a comparison could usefully be made with data from previous housing censuses. In exploring the possibility of inter-censal comparisons it is necessary to take account of changes in concepts and definitions which may have occurred in the past and those which are likely to be introduced in the future. For example, for the 1960 round of censuses in Latin America, the regional recommendations included a definition of household which differed basically from that proposed for the 1970 censuses ^{14/}. Unless this change in concept is taken into account, comparisons of the number, size and composition of household derived from the 1960 and 1970 censuses could be misleading.

70. An important consideration in planning analytical tables will be the geographic areas according to which data are to be shown. For most countries, it seems that national aggregates with at least an urban/rural breakdown would be required. However, in many cases it may be useful to distinguish principal cities, as well as provinces, regions and areas of special interest.

71. In addition to tabular formats, consideration should be given to utilizing graphic presentation for certain aspects of the analysis. Bar charts, pie charts, graphs, data maps, etc., can provide an effective

^{14/} For the 1960 censuses the definition of household was based on the total occupants of a housing unit or other set of living quarters. For the 1970 censuses, the recommended definition conformed to the United Nations definition, being based on the economic and social arrangements made by persons to provide themselves with food and other essentials for living.

means of illustrating relative proportions, ratios, changes in aggregates, etc., as well as spatial distributions and differences from one geographic area to another.

72. Furthermore, since most countries now use computers for the tabulation of census data it is important to take advantage of the opportunities which these afford for graphic output, including the ability to plot variables according to their magnitude and geographic location. For localities of a certain size data on living quarters by type and geographic location may be plotted so as to provide a general view within the locality of the location and frequency of each category. Data for living quarters with, or lacking, certain facilities might be similarly displayed, as well as data on dwellings according to density of occupation (number of persons per room and/or number of households per housing unit). It is also possible to prepare composite indices which would incorporate data for a selection of characteristics. In the 1960 census of Panama a conventional tabulation was published which could be adapted for this purpose. It included the following: Population x sex + population illiterate + population of school age not attending school + occupied dwellings + dwellings without toilets + dwellings without water + dwellings without electric lighting + dwellings with earth floor. Data for these variables are tabulated down to the smallest locality distinguished in the census. It contains the type of information which might be combined within a single index and plotted geographically, thus enabling localities to be identified according to their position on a scale of values established on the basis of the index.

73. Analytical tables should be accompanied by a text setting forth the conclusions which may be arrived at on the basis of the data and drawing attention to relevant limitations of the information, extent of comparability from one census to another, etc. At the expense of some duplication, it is often useful to describe the contents of tables in the text. For persons not accustomed to using statistical data, words often seem to be more readily understood than numbers.

74. The tables which comprise the analysis may be expected to vary according to the needs of each country. Some of the questions which they are designed to answer may be purely national in character, but many reflect problems which are of almost universal concern. It is possible, therefore, to make some general recommendations concerning the form and content of tables which may be prepared. Nevertheless it should be clearly understood that the tables proposed in section B below do not represent a programme of analysis which should necessarily be adopted in its entirety

/by any

by any one country and that for almost every country the list as well as individual tables would need to be adapted to national requirements. In particular, the geographic areas for which data are shown should be carefully thought out.

B. Examples of analytical tables

75. In considering the kind of analytical tables which might be prepared as part of a housing census, the "Recommended" tabulations (Number 1-11) contained in Principles and Recommendations have been taken as a point of departure. No additional tabulations of a general nature are proposed at this time although it is understood that eventually others may be required. However, before attempting any further expansion of the existing tabulation programme it has been considered more useful to concentrate on the development of analytical tables aimed at making the fullest use of data likely to be derived from those tabulations already recommended.

76. The following list includes tables of a type which has been used in practice to analyse census data at the national, regional and local levels. Analytical tables are numbered to correspond to the tables in the Principles and Recommendations from which the data required for the respective tables would be derived. The precise relationship of analytical tables to general tabulations is described in the notes accompanying each table.

77. Some of the tables shown summarize information contained in the corresponding census tabulations, others contain rates and ratios and a few are extensions of these tabulations. Depending upon the extent to which housing censuses have been carried out in the past, many of the tables could include a time series of information in order to reveal trends in certain aspects of housing. As indicated in the notes, some could, with advantage, be expressed in terms of percentages as well as aggregates. The geographic breakdown which appears in the tables is "total country", "urban", "rural" and principal localities. In some countries, however, such a breakdown may be insufficient for analytical purposes and separate data would be required for other areas considered to be of significance for an appraisal of the housing situation based on census data. Although primarily directed at the analysis of housing census data, the tables also cover population data. Following the list, each of the proposed tables is shown in outline.

/List of

List of analytical tables 15/

Housing data 16/

- 1A. Living quarters, households, family nuclei and persons in households, by type of living quarters: total country, urban, rural, principal localities; aggregates and percentages.
- 1B. Comparison of the available supply of acceptable housing with the number of households and persons living in households: total country, urban, rural, principal localities.
- 2A. Households and persons in households, by type of living quarters cross-classified by sex, marital status, national and/or ethnic group and age of head of household: total country, urban, rural, principal localities.
- 3A. Households and persons in households, by type of living quarters cross-classified by type of activity, occupation and sex of head of household: total country, urban, rural, principal localities.
- 4A. Conventional dwellings by distribution of selected average densities (persons per room) and number of rooms: total country, urban, rural, principal localities.
- 4B. Distribution of conventional dwellings by number of rooms and distribution of households by number of households members: total country, urban, rural, principal localities.
- 5A. Households in conventional dwellings and persons in households by number of households per dwellings: total country, urban, rural, principal localities.
- 6A. Living quarters, households, and persons in living quarters, by type of living quarters cross-classified by water supply system: total country, urban, rural, principal localities.

15/ Analytical tables are numbered to correspond to the "Recommended" Tabulations in M45 from which the data would be derived.

16/ Including those population data recommended to be collected in a housing census if they are not available from a population census.

- 7A. Occupied living quarters, households and persons in living quarters by type of living quarters cross-classified by type of toilet facilities: total country, urban, rural, principal localities.
- 8A. Occupied conventional dwellings and persons in dwellings, by type of lighting: total country, urban, rural, principal localities.
- 9A. Households and persons in conventional dwellings by tenure of household: total country, urban, rural, principal localities.
- 10A. Vacant conventional dwellings by type of vacancy: total country, urban, rural, principal localities.
- 11A. 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 walls: total country, urban, rural, principal localities.
- 11B. Estimated useful life of dwellings and time period for replacement: total country, urban, rural, principal localities.
- 11C. Number of dwellings constructed annually during the period 1961-1970 and date of construction per thousand population: total country, urban, rural, principal localities.

Population data 17/

- 12. Population: total country, urban, rural, principal localities.
- 13. Rates of population growth and future prospects: total country, urban, rural, principal localities.
- 14. Number and average size of households and distribution of households by number of household members: total country, urban, rural, principal localities.
- 15. Rates of household formation and future prospects: total country, urban, rural, principal localities.
- 16. Trends in internal migration: urban, rural, principal localities.

17/ Tables refer to population data not normally available from a housing census. Outlines are not included but will be based on tables proposed in connexion with the analysis of population census data.

Table 1A
 LIVING QUARTERS, HOUSEHOLDS, FAMILY NUCLEI AND PERSONS IN HOUSEHOLDS, BY TYPE OF LIVING QUARTERS: TOTAL COUNTRY, URBAN, RURAL
 PRINCIPAL LOCALITIES, AGGREGATES AND PERCENTAGES

Geographic division and units of tabulation	Total	Type of living quarters						Home less persons
		Housing units			Living quarters other than housing units			
		Total	Dwelling	Mobile unit	Impro- vised unit	Not intended for habitation	Total	
<u>Total country</u>								
Total living quarters								
Number								
Percentages								
Total households								
Number								
Percentages								
Total family nuclei								
Number								
Percentages								
Total persons								
Number								
Percentages								
<u>Urban</u>								
(Same classification as above)								
<u>Rural</u>								
(Same classification as above)								
<u>Principal localities</u>								
(Same classification as above)								

[For analytical table 1A, the classification of living quarters used in tabulation 1 of M.45 has been consolidated somewhat and data are expressed in terms of percentages as well as aggregates].

Table 1 B

COMPARISON OF THE AVAILABLE SUPPLY OF ACCEPTABLE^{a/} HOUSING WITH THE NUMBER OF HOUSEHOLDS AND PERSONS LIVING IN HOUSEHOLDS: TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and units of tabulation	Total	Acceptable housing units (permanent dwellings)	Unacceptable housing units (mobile, improvised, not intended for habitation)	Living quarters other than housing units	Homeless
<u>Total country</u>					
Living quarters					
Number					
Households					
Number					
Percentages					
Persons					
Number					
Percentages					
<u>Urban</u>					
(Same units of tabulation as above)					
<u>Rural</u>					
(Same units of tabulation as above)					
<u>Principal localities</u>					
(Same units of tabulation as above)					
<p data-bbox="632 1518 1410 1819"> [Table 1 B utilizes the data from Tabulation 1 of M.45 to compare the number of acceptable housing units (dwellings in this case) with the total number of households and to show in what types of living quarters, households are accommodated and how many are homeless. In some countries certain types of living quarters in addition to "dwellings" may be considered as "acceptable", for example, mobile housing units and in this case their number would need to be incorporated with the number of "acceptable housing units".] </p>					

^{a/} "Acceptable" in terms of standards prevailing in the country concerned.

Table 2A
 HOUSEHOLDS AND PERSONS IN HOUSEHOLDS, BY TYPE OF LIVING QUARTERS CROSS-CLASSIFIED BY SEX, MARITAL STATUS,
 NATIONAL AND/OR ETHNIC GROUP AND AGE OF HEAD OF HOUSEHOLD: TOTAL, COUNTRY,
 URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and characteristics of head of household	Total	Type of living quarters							Homeless persons	
		Housing units					Living quarters other than housing units			
		Total	Dwelling	Mobile unit	Improvised unit	Not intend- ed for habitation	Total	Hotel, etc.		Institutions and other
<u>Total country</u>										
Total households										
Total persons in households										
Male head of household (within appropriate national and/or ethnic group)										
Households										
Persons in households										
Single or never married										
Households										
Persons in households										
Under 15 years										
Households										
Persons in households										
15-64 years										
Households										
Persons in households										
65 years and over										
Households										
Persons in households										
Married										
Households										
Persons in households (Age groups as above)										
Female head of household (within appropriate national and/or ethnic group) (Marital status and age groups as above)										
<u>Urban</u> (Same classification as above)										
<u>Rural</u> (Same classifications as above)										
<u>Principal localities</u> (Same classification as above)										

[The classification of living quarters utilized in Tabulation 2 of M.45, as well as the classification of age and marital status have been consolidated so as to reduce the number of categories.]

Table 3A

HOUSEHOLDS AND PERSONS IN HOUSEHOLDS, BY TYPE OF LIVING QUARTERS CROSS CLASSIFIED BY TYPE OF ACTIVITY, OCCUPATION
AND SEX OF HEAD OF HOUSEHOLD: TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and characteristics of head of household	Total	Type of living quarters							Home- less persons
		Housing units				Living quarters other than housing units			
		Total	Dwelling	Mobile unit	Impro- vised unit	Not intended for habi- tation	Total	Hotel etc.	
<u>Total country</u>									
Economically active head of household									
Households									
Persons in households									
Male									
Households									
Persons in households									
Female									
Households									
Persons in households									
Occupation Group									
Male									
Households									
Persons in households									
Female									
Households									
Persons in households									
Occupation Group									
[Occupation Groups according or convertible to the major groups of the latest revision of the International Standard Classi- fication of Occupations (ISCO)]									
Head of household not economically active									
Households									
Persons in households									
Male									
Households									
Persons in households									
Female									
Households									
Persons in households									
Urban (Classification as above)									
Rural (Classification as above)									
Principal localities (Classification as above)									

[The same slightly reduced classification of living quarters used for Tables 1A and 2A is also used for Table 3A. For some countries it may not be necessary to show at the national level all major occupational groups. For example, Major Group 0/1 may be combined with Major Group 02. However, the classification decided upon will depend upon circumstances in the country concerned and in some cases it may even be desirable to expand the classification so as to show more rather than less detail.]

Table 4A

CONVENTIONAL DWELLINGS BY DISTRIBUTION OF SELECTED AVERAGE DENSITIES (PERSONS PER ROOM) AND NUMBER OF ROOMS: TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and levels of density	Total dwellings	Dwellings with following number of rooms:										
		1	2	3	4	5	6	7	8	9	10+	
<u>Total country</u>												
Average density												
Less than 1.0												
Less than 1.5												
1.5 or more												
2.0 or more												
3.0 or more												
<u>Urban</u>												
(Same classification as above)												
<u>Rural</u>												
(Same classification as above)												
<u>Principal localities</u>												
(Same classification as above)												

[The data produced by Tabulation 4 of M.45 are utilized to produce a distribution of dwellings by number of rooms cross-classified by average density and a distribution of selected densities. In smaller areas a table might be useful which would include the average density and a measure of overcrowding determined according to conditions in the country concerned, a 3.0 or more persons per room for example.]

Table 4B

DISTRIBUTION OF CONVENTIONAL DWELLINGS BY NUMBER OF ROOMS AND DISTRIBUTION OF HOUSEHOLDS BY NUMBER OF HOUSEHOLD MEMBERS: TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division, dwellings and households	Total	Rooms and household members										
		1	2	3	4	5	6	7	8	9	10+	
<u>Total country</u>												
Dwellings by number of rooms												
Number												
Percentages												
Households by number of members												
Number												
Percentages												
<u>Urban</u>												
(Same classification as above)												
<u>Rural</u>												
(Same classification as above)												
<u>Principal localities</u>												
(Same classification as above)												

[If overcrowding is to be avoided, the distribution of dwellings by number of rooms should have at least an approximate relationship to the distribution of households by number of household members. Table 4B is intended to show the compatibility or incompatibility of these distributions. Under ideal conditions it would be expected that the total number of dwellings would exceed by a percentage of at least 9% the total number of households and that the excess would be fairly evenly distributed among dwellings of all sizes.]

Table 5A

HOUSEHOLDS IN CONVENTIONAL DWELLINGS AND PERSONS IN HOUSEHOLDS BY NUMBER OF HOUSEHOLDS
PER DWELLING: TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and unit of tabulation	Total households	Number of households per dwelling		
		1 Household	2 Households	3 and over households
<u>Total country</u>				
Households				
Number				
Percentages				
Persons in households				
Number				
Percentages				
<u>Urban</u>				
(Same units of tabulation as above)				
<u>Rural</u>				
(Same units of tabulation as above)				
<u>Principal localities</u>				
(Same units of tabulation as above)				

[Table 5A corresponds to Tabulation 5 of N.45 except that it includes persons in households as well as households and the data are presented as percentages as well as aggregates.]

Table 6A

LIVING QUARTERS, HOUSEHOLDS, AND PERSONS IN LIVING QUARTERS, BY TYPE OF LIVING QUARTERS CROSS-CLASSIFIED
BY WATER SUPPLY SYSTEM: TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and availability of piped water in the housing unit	Total	Type of living quarters							
		Housing units				Living quarters other than housing units			
		Total	Dwelling	Mobile unit	Improvised unit	Not intended for habitation	Total	Hotel etc.	Institutions and others
<u>Total country</u>									
Total living quarters									
With piped water inside									
With piped water outside but									
Within 100 metres									
Without piped water ^{a/}									
Total households									
(Same classification of water supply system as above)									
Total persons									
(Same classification of water supply system as above)									
<u>Urban</u>									
(Same classification as above)									
<u>Rural</u>									
(Same classification as above)									
<u>Principal localities</u>									
(Same classification as above)									

[For Table 6A the classification of living quarters utilized in Tabulation 6 of M.45 has been slightly reduced (as for Tables 1A-3A and 7A), otherwise Table 6A is a summary of Tabulation 6. This table could usefully be reproduced with data in terms of percentages rather than aggregates.]

a/ Including living quarters whose occupants use piped water located beyond 100 metres from the living quarters.

Table 7A
 OCCUPIED LIVING QUARTERS, HOUSEHOLDS AND PERSONS IN LIVING QUARTERS BY TYPE OF LIVING QUARTERS CROSS-CLASSIFIED BY TYPE
 OF TOILET FACILITIES: TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and type of toilet facility available in living quarters	Type of living quarters							Homeless persons
	Housing units				Living quarters other than housing units			
	Total	Dwelling	Mobile unit	Improved unit	Not intended for habitation	Total	Hotel etc.	
<u>Total country</u>								
Total living quarters								
With toilet								
Flush								
Non flush								
Without toilet								
Total households (Classification of toilet facilities as above)								
Total persons (Classification of toilet facilities as above)								
<u>Urban</u> (Same classification as above)								
<u>Rural</u> (Same classification as above)								
<u>Principal localities</u> (Same classification as above)								

[For table 7A the classification of living quarters utilized in tabulation 7 of M.P.5 has been slightly reduced (as for Tables 1A-3A and 6A), otherwise Table 7A is a summary of Tabulation 7. This table could usefully be reproduced with data in terms of percentages rather than aggregates.]

Table 8A

OCCUPIED CONVENTIONAL DWELLINGS AND PERSONS IN DWELLINGS, BY TYPE OF LIGHTING:
TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and unit of tabulation	Total	Type of lighting			
		Electricity	Gas	Oil lamp	Other types of significance in the country concerned
<u>Total country</u>					
Conventional dwellings					
Number					
Percentage					
Persons in dwellings					
Number					
Percentage					
<u>Urban</u>					
(Same units of tabulation as above)					
<u>Rural</u>					
(Same units of tabulation as above)					
<u>Principal localities</u>					
(Same units of tabulation as above)					

[Table 8A is a summary of Tabulation 8 of M.45. In addition it shows percentages as well as aggregates.]

Table 9A

HOUSEHOLDS AND PERSONS IN CONVENTIONAL DWELLINGS BY TENURE OF HOUSEHOLD: TOTAL
COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and units of tabulation	Total	Tenure of household			
		Owner occupant	Tenant	Sub-tenant	Other form of tenure
<u>Total country</u>					
Households in dwellings					
Number					
Percentage					
Persons in dwellings					
Number					
Percentage					
<u>Urban</u>					
(Same units of tabulation as above)					
<u>Rural</u>					
(Same units of tabulation as above)					
<u>Principal localities</u>					
(Same units of tabulation as above)					

[Table 9A is a summary of Tabulation 9 of M.45. In addition it shows percentages as well as aggregates.]

Table 10A
 VACANT CONVENTIONAL DWELLINGS BY TYPE OF VACANCY: TOTAL COUNTRY,
 URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and unit of tabulation	Total convent- ional dwellings	Vacant conventional dwellings					
		Total	Type of vacancy				
			Seasonally vacant	Non-seasonally vacant			
				Total	For rent	For sale	Other
<u>Total country</u>							
Number of dwellings							
Percentage							
<u>Urban</u>							
(Same units of tabulation as above)							
<u>Rural</u>							
(Same units of tabulation as above)							
<u>Principal localities</u>							
(Same units of tabulation as above)							

[Table 10A summarizes Tabulation 10 of M.45 and, in addition, includes a percentage distribution moreover, because of the significance of the vacancy ratio (the percentage which vacant dwellings represent of all dwellings) and the desirability for this purpose of distinguishing seasonally vacant from non-seasonally vacant, columns have been added to include the total number of conventional dwellings (occupied as well as vacant) and the total number of non-seasonally vacant conventional dwellings.]

Table 11A

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 WALLS: TOTAL COUNTRY, URBAN, RURAL PRINCIPAL LOCALITIES

Geographic division type of building and construction material of walls	Total dwellings	Year or period of building construction															
		Year prior to census a/											Period				
		Total	0	1	2	3	4	5	6	7	8	9	I	II	III	IV	
<u>Total country</u>																	
Buildings of any type																	
Material of walls:																	
Material A																	
Material B																	
Material C																	
Buildings coextensive with a single detached housing unit b/																	
(Classification of material as above)																	
Building containing more than one housing unit																	
(Classification of material as above)																	
Building for persons not living in households																	
(Classification of material as above)																	
All other types																	
(Classification of material as above)																	
<u>Urban</u>																	
(Same classification as above)																	
<u>Rural</u>																	
(Same classification as above)																	
<u>Principal localities</u>																	
(Same classification as above)																	

[This table corresponds to Tabulation 11 of M.45 with two exceptions: a total is shown of the number of dwellings constructed during the single years prior to the census and; a classification by material of construction is shown for all dwellings irrespective of type of building. The latter corrects an oversight in preparing the outline of Tabulation 11 in M.45.]

a/ Census year (0) and years preceding the census year.

b/ Since this tabulation is limited to conventional dwellings this category would include dwellings in buildings coextensive with a single detached "dwelling".

Table 11B.

ESTIMATED USEFUL LIFE OF DWELLINGS AND TIME PERIOD FOR REPLACEMENT:
TOTAL COUNTRY, URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division, age and material of construction of buildings in which dwellings are located	Estimated useful life of dwellings and time period for replacement					
	Total Dwellings	0-9 years	10-19 years	20-29 years	30-39 years	40-50 years
		1970-1979	1980-1989	1990-1999	2000-2009	2010-2020
<u>Total country</u>						
Dwellings less than 10 years old						
Material A						
Material B						
Material C						
Dwellings 10-19 years old						
Material A						
Material B						
Material C						
Dwellings 20-29 years old (Same classification of materials as above)						
Dwellings 30-39 years old (Same classification of materials as above)						
Dwellings 40 years old and over (Same classification of materials as above)						

Level of replacement required

- Urban
(Same classification as above)
- Rural
(Same classifications as above)
- Principal localities
(Same classification as above)

In Table 11B the data from Tabulation 11 of M.45 are utilized to project the remaining useful life of dwellings in existence at the time of the census and to estimate the periods during which they will need to be replaced. Table 11 of M.45 furnishes data on year or period of construction for 10 single years and 4 time periods. For Table 11B of the analysis these data are consolidated into 5 time periods. Data for the single years are placed in a group showing dwellings 0-9 years old. It is assumed that groups I, II, III and IV have been established for the census so that they include dwellings whose age is 10-19 years, 20-29 years, 30-39 years, and 40 years and over respectively. Housing Technicians will have been consulted in deciding what materials of construction to include in the census and it is they who must decide upon the estimated life of buildings constructed of these materials. For this table it is assumed that the average life for buildings of Material A is 40 years, for material B 30 years and for material C 20 years. The table furnishes data on the total number of dwellings to reach the end of their useful life during the periods 1970-1979, 1980-1989, 1990-1999, 2000-2009 and 2010-2020. If desired, Table 11B may be expanded to include the types of building shown in Table 11.

Table 11C.

NUMBER OF DWELLINGS CONSTRUCTED ANNUALLY DURING THE PERIOD 1961-1970 AND
DATE OF CONSTRUCTION PER THOUSAND POPULATION: TOTAL COUNTRY,
URBAN, RURAL, PRINCIPAL LOCALITIES

Geographic division and unit of tabulation	Total	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
<u>Total country</u>											
Number of dwellings constructed											
Estimated mid. year population											
Dwellings constructed per thousand population											
<u>Urban</u>											
(Same units of tabulation as above)											
<u>Rural</u>											
(Same units of tabulations as above)											
<u>Principal localities</u>											
(Same units of tabulation as above)											

[Table 11 of M.45 furnishes data on year of construction for a nine-year period preceding the census. Because, in many countries, data on construction are deficient in terms both of coverage and quality the information included in Table 11 C may be used to check the validity of whatever construction data may be available as a result of a system of continuous collection or to provide an estimate of the and rate of construction in those countries where data do not exist or are available for only a limited part of the country.]

V. PUBLICATION OF CENSUS TABLES

78. The census publication represents the end product of all efforts and resources employed to carry through a successful census operation. A detailed discussion of the many facets of publication would be beyond the scope of this paper, however, since the time schedule for publication of census data and the form in which these data are published are intimately related to the use of the information, it seems that at least some general considerations connected with publication should be mentioned. More detailed information on this subject will shortly be included in the revised version of the Handbook of Population and Housing Census Methods.

79. In preparing the tabulation programme it has to be decided what data are to be published and at what level of geographic detail. Some information may not be published at all, either because it is not of general interest or because it refers to very small geographic areas and would be too voluminous and costly to issue in published form. Such information may be stored, however, and provided as required. In some cases it is furnished to users on a cost basis.

80. Since the value of census data diminishes with the passage of time every effort should be made to publish the principal results as soon as possible after the date of the enumeration. Target dates for publication of preliminary results, advance tabulations, if applicable, final and special tabulations should be established in advance and processing and reproduction plans should be prepared so that they are compatible. Results should be published in a legible form as rapidly and as economically as possible.

81. In countries where more than one language is commonly spoken census results may be issued in bilingual editions or where necessary separate editions may be devoted to each language. Where the language of the country is not well known throughout the world, translations of table captions and stubs into languages used internationally are extremely useful for users outside of the country. Unpublished data may be stored on tape and in some cases made available in this form since many users now have computers or have access to computers. A list of stored data should be published together with an indication of geographic areas to which data refer.

82. Published tables should be accompanied by definitions of the topics included, a copy of the questionnaire (including both population and housing questionnaires if separate schedules were used in the census), as well as relevant instructions to the enumerators (those which have a bearing on the implementation of definitions or which affect in any way the nature of the data produced or their interpretation). Complete instructions to the enumerators are usually included in the administrative report covering the census.

83. Tables should be accompanied by a census map showing the geographic divisions included in the tables and enabling all geographic locations referred to in the tables to be identified. Published tables may also be accompanied by a tabular index (see, for example, that utilized in Canada (Annex VI)) showing the topics covered by the census, the tables in which they appear, the geographic divisions included in the tables, and, where data for more than one census appear in the tables, the census years.

84. Depending upon the quantity of data involved, housing census information may be published in the same volume with population census data or it may be published separately. The form in which data are to be published needs to be decided and also the method of publication. Full advantage should be taken of the capabilities of computers for direct output in a form which can be published or adapted for publication.

Annex I

Tabulations included in United Nations world recommendations
for the 1970 housing censuses 1/

Title

Recommended tabulations

Tabulation
number

- 1 Living quarters, households, family nuclei and persons in households, by type of living quarters.
- 2 Households and persons in households, by type of living quarters cross-classified by sex, marital status, national and/or ethnic group and age of head of household.
- 3 Households and persons in households, by type of living quarters cross-classified by type of activity, occupation and sex of head of household.
- 4 Conventional dwellings by number of rooms cross-classified by number of occupants per dwelling.
- 5 Households in conventional dwellings by number of households per dwelling.
- 6 Living quarters, households and persons in living quarters by type of living quarters cross-classified by water supply system.
- 7 Occupied living quarters, households and persons in living quarters, by type of living quarters cross-classified by type of toilet facility.
- 8 Occupied conventional dwellings, and persons in dwellings by type of lighting.

1/ Principles and Recommendations for the 1970 Housing Censuses, op.cit.

Tabulation
number

- 9 Households and persons in conventional dwellings by tenure of household.
- 10 Vacant conventional dwellings by type of vacancy.
- 11 Conventional dwellings by year (or period) of construction of building (in which dwelling is located) cross-classified by type of building and construction material.

Other useful tabulations

- 12 Households and persons in households, by type of living quarters cross-classified by type of activity, industry and sex of head of household.
- 13 Households occupying dwellings by type of owner of the dwelling cross-classified by tenure of the household and availability of piped water and toilet facilities in the dwelling.
- 14 Occupied conventional dwellings by number of bedrooms cross-classified by number of occupants per dwelling.
- 15 Occupied conventional dwellings, households and persons in dwellings by availability in the dwelling of cooking facilities.
- 16 Occupied conventional dwellings, households and persons in dwellings by availability in the dwellings of bathing facilities.
- 17 Rented conventional dwellings by amount of rent paid monthly for the dwelling cross-classified by number of rooms in the dwelling.
- 18 Households in rented conventional dwellings by amount of rent paid monthly by the household cross-classified by number of households in the dwelling.

Annex II

Tabulations included in IASI Regional Recommendations
for the 1970 Housing Censuses

<u>Table</u>	<u>Title</u>
1	Number of occupied living quarters, households, family nuclei and occupants by type of living quarters (<u>first priority</u>)
2	Number of occupied housing units by number of occupants according to tenure, type of housing unit, and number of rooms (<u>first priority</u>)
3	Number of housing units occupied by renters according to monthly rent, type of housing unit and number of rooms (<u>first priority</u>)
4	Number of occupied housing units, household and occupants by type of housing unit according to water supply (<u>first priority</u>)
5	Number of occupied housing units, household and occupants by type of housing unit according to type of bathing facilities (<u>first priority</u>)
6	Number of occupied housing units, households and occupants by type of housing unit according to type of toilet and sewage system (<u>first priority</u>)
7	Number of occupied housing units, households and occupants by type of housing unit according to cooking facilities and fuel used for cooking (<u>first priority</u>)
8	Number of occupied housing units, households and occupants by type of housing unit according to type of lighting (<u>first priority</u>)

<u>Table</u>	<u>Title</u>
9	Number of vacant housing units by type of housing unit according to reason for vacancy (<u>first priority</u>)
10	Number of occupied housing units of two rooms and over by number of occupants according to type of housing unit and number of bedrooms (<u>first priority</u>)
11	Number of household heads, occupied housing units, households and occupants by type of housing unit according to sex, marital status and age of the head of household (<u>first priority</u>)
12	Number of household heads, occupied housing units, households and occupants by type of housing unit according to type of activity, branch of industry and sex of household head. (<u>first priority</u>)
13	Number of heads of household, occupied housing units, households and occupants by type of housing unit according to type of activity, occupation and sex of head of household (<u>first priority</u>)
14	Number of occupied housing units, constructed before the census date during the period indicated by type of housing unit according to type of building and principal construction material of walls, floors and roof (<u>second priority</u>)

Annex III

Tabulations included in the Housing Census
of Colombia - 15 July 1964

<u>Table</u>	<u>Title</u>
1	Buildings by sections of the country according to the censuses of 1964 and 1951
2	Buildings in the capital cities according to the censuses of 1964 and 1951
3	Buildings by number of floors
4	Buildings by use or purpose
5	Buildings by use or purpose according to principal materials of the floors, walls and roofs
6	Buildings by number of living quarters according to use or purpose of the buildings
7	Living quarters by type
8	Occupied housing units by number of families occupying them
9	Occupied housing units by services and type of construction
10	Occupied housing units by services according to the number of families occupying them and type of construction of housing unit
11	Occupied housing units by type of construction and services according to the number of persons occupying them
12	Occupied housing units by services according to type of construction and number of rooms

<u>Table</u>	<u>Title</u>
13	Occupied housing units by number of rooms and number of persons
14	Occupied housing unit by form of tenure
15	Occupied housing units according to average number of persons per room

Annex IV

Tabulations included in the Housing Census
of Colombia - 9 May 1951

<u>Table</u>	<u>Title</u>
6	Buildings according to the number of living quarters
7	Housing units according to the number of rooms
8	Housing units according to the number of baths and toilets
9	Housing units according to occupancy and tenure
10	Housing units according to water supply, toilet facilities, baths, lighting and tenure
11	Living quarters according to the number of families
12	Housing units according to the number of rooms and number of persons
13	Housing units according to the number of persons an tenure
14	Living quarters according to the number of families for cities of 10 000 and more inhabitants
15	Housing units according to the average number of persons per room
16	Housing units according to the average number of persons per room for cities of 10 000 or more inhabitants
17	Collective housing units according to the use or purpose

<u>Table</u>	<u>Title</u>
18	Collective housing units according to the number of rooms
19	Collective housing unit according to water supply, toilets and lighting
20	Collective housing units according to number of rooms and number of persons

Annex V

List of tables to be included in the forthcoming United Nations Yearbook of Housing Statistics

1. Population estimates and rates of population growth.
2. Projections of population and estimated annual rates of population growth.
3. Projections of population and rates of population growth; projections of number of households, rate of growth and average size of household.
4. Households by number of persons per household.
5. Summary of housing conditions. Total population and rate of growth; population living in households and per cent occupying conventional dwellings; number, average size and tenure of households and per cent occupying conventional dwellings; number of conventional dwellings and occupancy status; size, density of occupation and facilities of occupied dwellings; rate of dwelling construction.
6. Living quarters, households and persons in households by type of living quarters.
7. Living quarters, households and persons in households by type of living quarters: percentage distribution.
8. Occupied conventional dwellings by number of rooms per dwelling.
9. Occupied conventional dwellings by average number of persons per room in dwellings.
10. Households in conventional dwellings by tenure of household and number of conventional dwellings per 100 households.
11. Occupied conventional dwellings by water supply system and availability and type of toilet.
12. Occupied conventional dwellings by availability of electric lighting, kitchen or kitchenette and fixed bath or shower.

13. Conventional dwellings constructed annually: number and rate per thousand mid-year population.
14. Conventional dwellings constructed annually by type of investor and size (rooms per dwelling).
15. Value and change in level of gross domestic product, fixed capital formation, residential and non-residential construction, private final consumption expenditure and expenditure on rent, fuel and power.
16. Fixed capital formation, residential and non-residential construction as a percentage of gross domestic product, fixed capital formation and total construction: rent, fuel and power as a percentage of private final consumption expenditure.
17. National estimates of housing needs for varying periods.

Annex VI
CANADA: 1966 CENSUS, ^{a/} INDEX OF TABLES

Table No	Subject	Showing also	Geographic areas							
			Canada and provinces	Canada, provinces, urban size groups RNF-RF	Canada, provinces, urban and RNF-RF	Counties and census divisions	Cities, towns, villages of 5 000+ mun. subdivisions 10 000+	Cities, towns, villages of 1 000+ mun. subdivisions 10 000+	Metro-politan areas	Other major urban areas
1	All dwellings: Dwellings, households, families and average number of persons per dwelling, per household and per family	1901 to 1966								
2	Occupied private and collective dwellings	Number of persons, vacant dwellings and dwellings under construction								
3-7	Occupied dwellings by structural type and by tenure		3	3		4		5	6	7
8	Households: Population, households and average number of persons per household	1961	8					8		
9-13	By number of persons		9	9		10		11	12	13
14-18	By number of families and by number of lodgers per household		14	14		15		16	17	18
19-21	By number of family persons		19		19				20	21
22-24	By number of non-family persons in family household		22		22				23	24
25-27	By number of persons in non-family households		25		25				26	27
28	By type (detailed)	1961	28							
29-33	By type		29		29	30	31		32	33
34-36	By type	Number of persons per household.	34						35	36
37-38	By marital status, age and sex of household head	Number of persons per household	37						38	
37A*	By age and sex of household head	Number of persons per household, 1961	37A							
39-40	By marital status, age and sex of household head	Number of families and number of lodgers per household	39						40	
41-42	By marital status, age and sex of household head	Type of household	41						42	
41A*	By age and sex of household head	Type of household, 1961	41A							

CANADA: 1966 SENSUS, INDEX OF (concluded)

Table No	Subject	Showing also	Geographic areas							
			Canada and provinces	Canada, provinces, urban size groups RNF-RF	Canada, provinces, urban and RNF-RF	Counties and census divisions	Cities, towns, villages of 5 000+ mun. subdivisions 10 000+	Cities, towns, villages of 1 000+ mun. subdivisions 10 000+	Metro-politan areas	Other major urban areas
43	Occupied dwellings: By tenure	Structural type, 1961	43						43	
44-45	By structural type and tenure	Number of persons per household	44		44				45	
46-47	By structural type and tenure	Number of families and number of lodgers per household	46		46				47	
48-49	By structural type and tenure	Type of household	48		48				49	
50-51	Households: By marital status, age and sex of household head	Structural type of dwelling and tenure	50						51	
52	Families: Persons in families and average size of family	1961	52					52		
53-57	By number of persons		53	53		54		55	56	57
58-62	By number of children 24 years and under at home		58	58		59		60	61	62
63-67	Children in families, 24 years and under at home by age		63	63		64		65	66	67
68-72	By marital status and sex of head		68		68	69	70		71	72
73-77	By age and sex of head		73		73	74	75		76	77
78*	By marital status, age and sex of head	1961	78							
79-80	By marital status, age and sex of head	Family size, type and composition	79						80	
81-82	By marital status and sex of head	Age groupings of children	81						82	
83-84	Husband-wife	Age of husband by age of wife	83						84	
85	By type	1961	85							
86-90	By type		86	86		87	88		89	90
91-92	By type	Family size and composition	91						92	
93	Population: By sex, age, and marital status	Household and family status	93							
94	By sex, age, and relationship to head of household		94							

* Canada only.

Abbreviations

RNF - Rural non-farm; RF - Rural farm; Mun. subd. - Municipal subdivisions.
a/ Volume II, Households and families, Dominion Bureau of Statistics, Ottawa, Canada.

Annex VII

OTHER TABULATIONS PROPOSED BY ECLA AND ILPES EXPERTS

1. Occupied housing units and rooms by urban and rural area and population, and main building materials.
2. Housing units by type of fuel used for cooking, area and number of occupants.
3. Housing units by water supply system, area and number of occupants.
4. Housing units by system of excrement disposal, urban and rural area, and number of occupants.
5. Housing units, households by type of family and population in households, by type and system of tenure of housing unit.
6. Households by system of tenure of housing unit, and type of activity and occupational status of head of household.
7. Households and population in households by level of education and type of housing unit.
8. Households and population in households by type of activity and type of housing unit.
9. Economically active population in households, by status, and type of housing unit.
10. Households where the heads are immigrants, by number of rooms, type of housing unit and number of persons in the household.