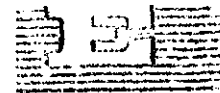


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PRESENT HOUSING REQUIREMENTS

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The following table shows the results of the experiment. The first column shows the number of trials, the second column shows the number of correct responses, and the third column shows the percentage of correct responses. The data shows that the number of correct responses increases as the number of trials increases, and that the percentage of correct responses is consistently high, around 90%.

Number of Trials	Number of Correct Responses	Percentage of Correct Responses
10	9	90%
20	18	90%
30	27	90%
40	36	90%
50	45	90%
60	54	90%
70	63	90%
80	72	90%
90	81	90%
100	90	90%

The results of the experiment show that the number of correct responses increases as the number of trials increases, and that the percentage of correct responses is consistently high, around 90%. This suggests that the subject is performing well on the task and that the task is relatively easy to learn.

I. INTRODUCTION

1. A house building programme in its most simple form may be described as an "assignment" to the building industry for the erection of a specified number of dwellings, within a specified period of time, for the purpose of raising, or at least maintaining, existing housing standards.

2. For the evaluation of such a simple house building programme the following are the determining factors.

A. Present housing requirements

Theoretically present housing requirements may be divided into:

(a) The present shortage of dwellings (required to reduce the number of doubled-up households and overcrowding);

(b) Replacement needs, i.e. the number of dwellings that should be built to replace that part of the housing stock which is not fit for human habitation. It may be stressed here that these two categories of housing requirements are closely related in that the number of occupied dwellings unfit for human habitation will tend to be higher according as the housing shortage is higher and vice versa. People requiring a dwelling and unable to find an adequate place to live because of the shortage of dwellings, will have no choice but seek an abandoned sub-standard dwelling, the whole or part of a building not intended for human habitation, or the like. The number of occupied dwellings unfit for human habitation will decrease according as the shortage of dwellings disappears, i.e. as the supply of adequate dwellings increases at a more rapid pace than the requirements.

B. Future housing requirements

As a house building programme is always intended to be executed within a specific time, the aim of the type of programme described above can only be attained if the increase of housing requirements during the relevant period is taken into account in evaluating it. This increase is mainly determined by:

(a) Demographic development;

(b) Internal and external migration;

(c) Deterioration of the existing housing stock during the relevant period;

(d) Social and economic development.

3. This simple type of house building programme will of course only meet the elementary needs of countries having a housing problem. The need for a more elaborate type of house building programme, embracing not only numbers of dwellings but also their size, rents, etc., and applicable not only to the country as a whole but also to its different regions, is apparent for the majority of countries. This is not only true of countries having a moderate housing shortage and therefore needing to avoid over production from a regional point of view as well as from the point of view of type of dwellings. It also applies to countries with a substantial housing shortage. It may be true, up to a point, that for the latter countries, neither the kind of dwellings constructed nor the place where they are erected need be considered very carefully since any increase is bound to be an improvement. However, where there is a substantial shortage of dwellings there is usually a corresponding substantial shortage of resources, and it is important that these should be used according to some system of priorities, which should be based mainly on the extent of the dwelling shortage in the different regions of the country.

4. This paper does not propose to go beyond the discussion of the most important problems relating to the evaluation of present housing requirements for the more simple type of house building programme. In other words it is concerned only with the calculation of the numerical housing shortage, and it does not differentiate dwellings to be built according to size, rent, etc. The reason for this is that central Governments are as a rule concerned only with the simple type of house building programme for the different regions of the country; in practise the more developed type grows out of this simple type by elaboration at the local level.

Central Governments generally take the numerical shortage in the different regions of the country as the starting-point for their national programmes. Subsequently other factors and aims, not necessarily connected with current requirements, are included. Thus it may be deemed necessary, for example, to encourage the establishment of a new industry in the centre of a region with much unemployment and no housing shortage, or to locate public housing developments in places where they will provide the best advertisement from a political point of view, rather than where they are most needed. When the number of dwellings to be built in each region is

/established in

established in this way, it may be that for some regions there is little connexion between the number of dwellings to be built and the number required. Central Governments naturally tend to leave the decision of dwellings to be built as to size, rent, etc. to local authorities, since in many cases such decisions must be reached on the basis of constantly changing norms or even on the basis of trial and error, rather than on the basis of an analysis of existing housing requirements.

II. THE MARKET CONCEPT AND THE NORMATIVE CONCEPT

5. Two different concepts may be used in dealing with housing shortages:

6. The first is the market concept, where a housing shortage is defined as the situation in which the demand for dwellings exceeds the supply at the existing levels of rents, other prices and incomes.

7. The evaluation of the dwelling shortage in this sense is clearly very difficult, for it implies the evaluation of "effective demand", which shows housing requirements as they appear from demand on the housing market at a given moment in the particular circumstances of that market. Moreover every "national market" is composed of a great many sub-markets, determined by regions as well as by types of dwellings, each of them with its own ratio of supply and demand. The problem is still more complicated by the fact that in many countries, owing to the existing housing shortage, the supply of dwellings is conditioned by rent regulations and other measures.

8. Because of the difficulties involved in assessing "effective demand", taking into account all the many factors determining it, many countries resort to the normative (or objective) concept of the housing shortage. This postulates that there is a shortage as long as current standards of housing, remain below the aims of housing policy.

9. The choice of the normative approach, however, is not determined merely by the difficulties just mentioned. There are also certain positive advantages. Thus the inclusion of the (future) aims of housing policy in present housing requirements, which is indispensable when establishing house-building programmes and which is inherent in the normative method, gives considerable trouble when the market concept is used. For the normative method takes account of what is desirable from a social point of

/view, especially

view, especially for the lower social-economic groups. To a great extent the housing requirements of these groups will not appear when using the market concept, as long as special social measures are necessary to transform these requirements into effective demand. Furthermore the normative approach, being much simpler from the methodological point of view, needs fewer and more objective data, as will become clear from this paper. These data will moreover also be available as a rule, for the different regions of the country, thus enabling housing shortages to be calculated also for each of the regions separately. This is much more difficult if the market concept is used, since in that case it will be difficult enough to make available even for the country as a whole the more subjective data necessary for the calculation of effective demand. This is all the more true since the preparation of house building programmes also involves the prediction of future effective demand. Finally, the normative concept enables each country to take account of the aims of its own housing policy, in other words to determine its own housing shortage on the basis of its effective housing situation and its own economic and social possibilities of improving the housing standard. This means that the use of the normative concept will enable countries to raise the level of their norms as their economic and social possibilities and/or their effective housing situation improve.

10. These are the main reasons why the determination of housing supply and housing requirements is approached in this paper from the normative side.

III. THE RELEVANT UNITS TO BE USED

11. In the Housing Seminar a special section is devoted to indicators describing the present housing situation. It has been pointed out how valuable these indicators may be for the analysis of special aspects of the housing problem. For the evaluation of present housing shortages, however, a different approach is necessary.

12. As is pointed out in the introduction to this paper, all house-building programmes are expressed in terms of dwellings to be built. This means that not only the housing supply but also requirements and shortages need to be expressed in terms of numbers of dwellings. Consequently housing requirements need to be translated into numbers of dwelling-requiring units, and

/obviously it

obviously it is the household and/or the family unit that require a separate dwelling rather than the population.

13. Thus from a methodological point of view the best method of evaluating present housing shortages is that in which they are derived from a comparison of the number of dwellings available and the present number of households and/or families.

IV. STATISTICAL SOURCES

14. For an evaluation of present housing requirements within the framework of a house building programme a general housing census is the best possible basis, since:

- (a) it provides figures for both housing units (including dwellings) and households and/or families;
- (b) it usually allows for far-reaching regional differentiation, which is important for the possibility of dealing separately with the various regions of the country; and
- (c) it describes the present housing situation in considerable detail, thus providing valuable background information for the norms to be established and the calculations to be made.

15. General censuses, however, call for an extensive administrative apparatus; they are costly, and they require a great deal of time for their preparation as well as for their execution and for the processing of the results obtained. Accordingly in countries where no special housing census has been taken as yet (or where the last housing census available does not provide enough information concerning the housing situation), basic information for short-term use could be gathered by means of partial censuses and/or sampling surveys. The latter might also be used for collecting the necessary data concerning items that cannot possibly be covered by censuses.

16. Although partial censuses and sampling surveys may be very valuable aids in approaching housing requirements, housing censuses provide a far better basis, since the former always miss one or even both of the advantages mentioned in paragraph 14 (b) and (c).

V. BASIC DEFINITIONS AND NORMS

A. Definitions

17. With regard to the basic notions of dwelling, private household and family, in practice fairly substantial differences between countries occur. However in this respect a certain consensus has been reached, the principles of which are laid down in the United Nations Statistical Paper M 28: General Principles for a Housing Census, and in the document of the Conference of European Statisticians (W.G. 6/81): European Programme for National Population Censuses.

The most striking feature in these papers is that at the world level, contrary to the practice in many countries, the notions of dwelling and private household are defined separately, without being strictly interrelated, while at the European level the notion of family has been given a very restricted definition.

Since the definition of the basic notions is of decisive importance for the calculation of present housing requirements, the relevant definitions, as recommended in the papers referred to above, are dealt with extensively in the following paragraphs.

18. In the recommendations mentioned, a "dwelling" is defined in the first instance as a special kind of housing unit. This may become clear from the recommended classification of housing units, which is given below:

1.0.0. Housing units intended for habitation

1.1.0. Private housing units

1.1.1. Conventional dwellings (houses, apartments, flats, etc.)

1.1.2. Rustic housing units (huts, cabins, etc.)

1.1.3. Mobile housing units (trailers, caravans, tents, boats, wagons, etc.)

1.1.4. Improvised housing units (squatters' houses, callampas, casas brujas, etc.)

1.2.0. Collective housing units

1.2.1. Hotels, rooming houses and other lodging houses
(hotels, motels, inns, boarding houses)

1.2.2. Institutions (convents, hospitals, boarding schools, etc.)

/1.2.3. Camps

- 1.2.3. Camps (lumber, mining, military, etc.)
- 1.2.4. Multi-family housing units (long houses, barracones, conventillos, casas de vecindad, carré, etc.)
- 2.0.0. Housing units not intended for habitation but in use for the purpose
 - 2.1.0. In permanent structures intended for non-residential purposes (barns, mills, garages, warehouses, etc.)
 - 2.2.0. Other (caves, natural shelters, etc.)

19. Although the classification given indicates quite clearly what should be excluded when defining a dwelling, the need has also been felt to give a more positive definition indicating what should be included. The following definition is recommended:

"A dwelling is a room or a suite of rooms and its accessories in a permanent building or structurally separated part thereof which by the way it has been built, rebuilt, converted, etc. is intended for private habitation and is not used wholly for other purposes. It should have a separate access to a street (direct or via a garden or grounds) or to a common space within the building (staircase, passage, gallery and so on)."

20. As distinct from this definition of a dwelling (and also from the definition of the other types of housing unit) the recommended definition of a private household is the following:

- "(a) One-person household: a person who lives alone in a separate housing unit or who as a lodger occupies a separate room or rooms in a part of a housing unit but does not join with any of the other occupants of the housing unit to form part of a multi-person household as defined below; or
- (b) Multi-person household: a group of two or more persons who combine to occupy the whole or part of a housing unit and to provide themselves with food or other essentials for living. The group may pool their incomes and have a common budget to a greater or lesser extent. The group may be composed of related persons only or of unrelated persons or of a combination of both, including boarders but excluding lodgers ..."

21. Along with this definition of private households a separate one is given for institutional households, which are defined as "groups of persons living in schools and colleges, penal establishments, hospitals, military installations, hotels, boarding houses, etc. Households in which the number of boarders and lodgers exceeds five should be considered as boarding or lodging houses and enumerated as institutional households".

It may be remarked, that this definition is not strictly related to the concept of collective housing unit, just as the private household is not strictly related to the concept of private housing unit.

22. At the European level it is recommended that households should not only be classified according to whether they constitute private or institutional households, they should be subdivided further according to whether they contain family nuclei, and if so, according to the number of these. For this purpose a family (nucleus) is defined as: "A married couple without children, a married couple with one or more unmarried (i.e. never married) children, or one parent with one or more unmarried children".^{1/}

It may be remarked that all other related members of a household are regarded as not belonging to the family nucleus.

23. This European recommendation implies that private households will be classified as follows:

- 1.0. Non-family households
 - 1.1. One person households
 - 1.2. Multi-person households
- 2.0. One-family households
 - 2.1. Married couple without children
 - 2.2. Married couple with unmarried children
 - 2.3. Father or mother with unmarried children
- 3.0. Multi-family households
 - 3.1. Comprising two families
 - 3.2. Comprising three families
 - 3.3. Comprising four families, etc.

^{1/} Including foster-children as well as adopted children.

It should be emphasized that the types of household mentioned under 2.0. and 3.0. may comprise apart from the members of the family nucleus, other relatives and/or related persons. The latter belong to the household but not to the family nuclei.

24. As regards families, a classification into two main types emerges from the foregoing. First of all there are the families of which the head is at the same time the head of the relevant household. These may be called primary families. Secondly there are the families of which the head is not at the same time the head of the household. These may be referred to as secondary families. Obviously secondary families may occur also in institutional households.

B. Norms

25. As has been pointed out in section II of this paper, the normative approach of the problem under discussion implies the establishment of norms for present housing supply as well as for present housing requirements. It is also implied that the norms referred to are determined on the one hand by what is desirable and on the other hand by what is possible. However, there is far less difference between countries as regards desirability than with regard to the possibility of giving effect to what is deemed desirable. It therefore seems appropriate to discuss the norms first from the point of view of desirability only, in order to arrive at generally acceptable norms which could be adapted by countries in the light of their own social and economic situation.

26. As regards housing supply the best way of arriving at a generally acceptable norm is to start from the characteristics of housing units actually in use, and the classification of these units as given in paragraph 18 of this paper. Since house-building programmes (as defined here) are restricted to the private sector of the housing market, collective housing units can be left out of the picture. For the other kinds of housing units it will be generally agreed that at least the housing units mentioned under 2.0.0., 1.1.2., 1.1.4. and also the greater part of those mentioned under 1.1.3. should be eliminated from the housing stock as being unsuitable for the purpose of housing private households. Thus desirability indicates as a norm that, generally speaking, supply is determined by the number of conventional dwellings available.

27. It should be borne in mind that the definition of a conventional dwelling as given in paragraph 19 does not guarantee the fitness of the unit for housing purposes. In fact the definition only involves the elements of privacy of the occupants and permanency of the structure. This means that in the stock of conventional dwellings (sometimes considerable) numbers of sub-standard units may be included, and consequently the norm for the housing supply as defined in paragraph 26 needs some modification. Such a modification should obviously be mainly in terms of the technical condition of dwellings, and clearly an evaluation of this technical condition on a basis that is generally acceptable is impossible. Therefore at this stage of the discussion all that can be said is that the norm stated in paragraph 26 leads to an over-optimistic view of the housing situation, as it includes only part of the replacement needs.

28. As regards housing requirements, attention is drawn to the fact that according to the definition of a conventional dwelling, such a unit should be intended for habitation by a private household. This suggests as a norm that at least each private household should have a separate conventional dwelling.

29. In this connexion it may be remarked that on a free housing market the number of households will always tend to be equal to the number of dwellings available; for when there is a shortage of dwellings on a free market, rents will go up, forcing households that cannot pay a higher rent to combine with other households until the point of balance between supply and demand is reached. On the other hand, when there is a surplus of dwellings offered, rents will go down, thus enabling households which joined with other households because they could not afford a dwelling of their own to break away and rent or buy a separate dwelling. It should, however, be borne in mind that:

- (a) In many countries the housing market is not free but regulated in one way or another;
- (b) Owing to the housing shortage one or two households may jointly occupy one dwelling, without joining together to provide themselves with food or other essentials for living, thus constituting two or more separate household in one single dwelling;

/(c) Owing

- (c) Owing to the shortage of dwellings many households may live in housing units that do not fall within the definition of conventional dwellings, thus constituting units requiring a separate dwelling;
- (d) Anticipating an increase on the number of dwellings, groups of persons break away from existing households and start forming separate units even before a separate dwelling is available.

For one or more of these reasons the number of households will practically always exceed the number of (conventional) dwellings available in practically all circumstances.

30. The factor mentioned under (d) above, in particular, indicates that the number of existing households only permits the estimation of minimum housing requirements. Households, and especially multi-family households (see paragraphs 22 and 23) may, when social and economic conditions are improving, split up into smaller units to the point where every secondary family constitutes a separate household. This would imply that a workable basis for the evaluation of the maximum housing requirements may be found by increasing the number of existing households by the number of secondary families in multi-family households.

VI. STATISTICAL EVALUATION

31. The applicability of the norms established in section V of this paper is of course greatly dependent on the statistical material available and on the definitions of the basic notions underlying this material. As has already been pointed out in paragraph 17, in practice quite substantial differences occur between countries in regard to the way in which the basic notions of dwelling, household and family are defined. It therefore seems realistic to distinguish three main possibilities and to discuss in respect of each whether, and if so to what extent and in what way, present housing requirements can be estimated.

/A. The

A. The "household-dwelling" concept.^{1/}

32. Some countries use in censuses and other inquiries a concept that might be referred to as the "household-dwelling" concept. This means that they start from the concept of the household as defined in paragraph 20 and define a "dwelling" as the space (room or rooms) occupied by a household. In this system the definition of "household" and "dwelling" are fully interrelated, which means that the number of dwellings always equals the number of households. It will be clear that when this concept is used the evaluation of present housing shortages is a difficult matter.

33. When the problem is approached from the supply side, application of the norm indicated in paragraph 26 is of course practically impossible, since a "dwelling" in this case may be a conventional dwelling as well as a part thereof (one or more rooms), an improvised or rustic housing unit or a part of such a unit, etc., so that conventional dwellings are left completely unidentified.

Hence in such cases the number of "dwellings" unfit for human habitation will have to be an estimate, and this is only possible if they are classified according to some relevant criterion such as:

- (a) Degree of permanency of the building in which the "dwellings" are located (permanent, semi-permanent, temporary);
- (b) Intended use of the building (residential, non-residential);
- (c) Type of building (single dwelling, multi-dwelling, etc.); and
- (d) Installation of the "dwelling" (cooking facilities, etc.).

If such an estimate is possible, present housing shortages as approached from the supply side could be reckoned as the number of dwellings necessary to replace the estimated number of "dwellings" unfit for human habitation.

34. An approach to the problem from the requirement side comes up against the same difficulties, insofar as the number of households equals the

^{1/} It should be noted that this is a concept used for the purpose of this paper and not to be considered as a recommendation. In connexion with the discussion of the "household-dwelling" concept the term "dwelling" refers to the space (room or rooms) occupied by a household. This is a concept which has been used by some countries and is not to be confused with "conventional (permanent) dwelling" as defined in paragraph 304 of the General Principles for a Housing Census (ST/STAT/SER.M/28).

number of "dwellings", which makes the application of the norm stated in paragraph 28 misleading. However, as the definition of household is consistent with that given in paragraph 20, it is possible to classify households according to types indicating the number of families living therein. If such a classification is available, application of the norm referred to in paragraph 30 enables the dwelling shortage emerging from the requirement side to be reckoned as the number of secondary families in multi-family households.

35. Summarizing the foregoing, when the "household-dwelling" concept is used, the housing shortage may be reckoned as the number of dwellings necessary to accommodate the households living in:

- (a) The estimated number of "dwellings" unfit for human habitation;
- (b) The estimated number of "sub-standard dwellings", plus the number of dwellings necessary to accommodate; and
- (c) The secondary families in multi-family households (potential households not having a separate dwelling at their disposal).

B. The "dwelling household" concept.^{1/}

36. The "dwelling-household" concept is the exact reverse of the concept dealt with under A. In this case the definition of dwelling as given in paragraph 19 is the starting-point, and the "household" is defined as the total number of persons occupying a dwelling. Although in this case also the number of dwellings equals the number of "households" owing to the fact that the two definitions are fully interrelated, in practice the "dwelling-household" concept is to be preferred to the "household-dwelling" concept. The main reason is that the "dwelling-household" concept at once enables an inventory to be made of the housing-units according to the type of unit, identifying clearly the type to be referred to as "conventional dwellings". It will be clear that when this concept is used the number of housing units and "households" (the latter being in fact "groups of occupants" or "single

^{1/} It should be noted that this is a concept used for the purpose of this paper and not to be considered as a recommendation. In connexion with the discussion of the "dwelling-household" concept the term "household" refers to the group of persons occupying a housing unit. This is a concept which has been used by some countries and is not to be confused with "private household" as defined in paragraph 403 of the General Principles for a Housing Census (ST/STAT/SER.M/28).

/occupants") will

occupants") will be much smaller than in the case of the "household-dwelling" concept, since

- (a) From the point of view of the "dwellings" the "household-dwelling" concept shows parts of housing units as separate "dwellings";
- (b) From the "household" point of view, in the "dwelling-household" concept separate households living together in one housing unit are enumerated jointly as a single "group of occupants". One-person households in particular will be enumerated frequently in this way as members of such a group.

37. From the supply side the calculation of the housing shortage can readily be approached using the norm established in paragraph 26 of this paper. This means that the housing shortage may be expressed from this side as the number of housing units not falling under the definition of conventional dwellings. When a more developed programme is used for the elaboration of the basic data, it may even be possible to estimate the number of sub-standard conventional dwellings (see paragraph 27) to be added to the housing shortage. It may be remarked that the total number of housing units to be replaced, as calculated according to this system, will be greater than the relevant number according to the system mentioned under A. For in the latter system it is not even sure that all non-conventional dwellings will be included in the estimate to be made.

38. From the requirement side, the application of the norm laid down in paragraph 28 is again misleading, unless the "groups of occupants" are classified according to the number of families involved. In that case the norm stated in paragraph 30 is applicable.

39. Summarizing the foregoing, when the "dwelling-household" concept is used the housing shortage may be reckoned as the number of dwellings needed to replace:

- (a) The number of private housing units not falling under the definition of conventional dwellings;
- (b) The estimated number of "sub-standard" conventional dwellings, plus the number of dwellings necessary to accommodate, and
- (c) The estimated number of secondary families enumerated in the "groups of occupants".

/C. Separate

C. Separate concepts

40. When the recommended separate concepts are used for dwelling and household, still more possibilities arise for the calculation of housing shortages, which means that more elements determining the housing shortage can be identified.

41. From the supply side the relevant norm indicates all housing units not falling under the definition of conventional dwellings as to be replaced. In the same way as under B, in this system a well developed programme may be applied for the elaboration of the basic data, making a fair estimate of the number of sub-standard conventional dwellings possible. In this case again, the number of sub-standard dwellings should be added to calculate the housing shortage.

42. From the requirement side application of the norm formulated in paragraph 28 leads in the first place to a correction of the figures as indicated in paragraph 41. Because households and dwellings are defined separately, it is possible for the number of households in "housing units not fit for human habitation" to be greater than the number of housing units in which they live; for, as already indicated in the relevant definition (see paragraph 20 (b)), a private household may equally well occupy a part or the whole of a housing unit, which implies that a housing unit may be occupied by two or more households. Therefore the housing shortage should be calculated on the basis as of the number of housing units not fit for human habitation but of the number of households living therein.

Since the same situation may occur also in conventional dwellings, the number of households living as subtenants in conventional dwellings should also be added to the housing shortage. It is, however, not realistic to include all one-person households living as lodgers, because not all of them are in the market for a separate dwelling. Lodgers generally wish to live alone but prefer to do this in the same dwelling with another household to obtain certain services from that household (cooking, cleaning, etc.). Therefore only an estimated proportion of lodgers should be included in the housing shortage. Finally, secondary families, regardless of whether they live in a conventional dwelling or not, should be added in the same way as is described under A and B, and for the same reasons.

/43. Summarizing

43. Summarizing the foregoing, when separate concepts are used the housing shortage may be calculated as the number of dwellings needed to replace:

- (a) The number of private housing units not falling under the definition of conventional dwellings;
- (b) The estimated number of "sub-standard" conventional dwellings; plus the number of dwellings necessary to accommodate;
- (c) The number of secondary families in multi-family households;
- (d) The multi-person households living as sub-tenants (regardless of the type of the housing unit in which they live as such); and
- (e) The estimated proportion of the lodgers that require a separate dwelling.

44. A comparison of the three "concepts" dealt with under A, B and C is given in annex I to this paper in diagram form. In the diagram the elements determining the housing shortage are indicated by arrows. The sections enclosed by dotted lines refer to cases in which only an estimate is possible; the ones within solid lines, to cases to be calculated on the basis of "exact" figures available. The letters to which the arrows point correspond to those used in the text of paragraphs 35, 39 and 43. For the sake of convenience the meaning of the letters is summarized at the foot of the annex. The diagram shows clearly that the concept dealt with under A is the least favourable one, since it leaves many - too many - elements of the housing shortage unidentified, and that the one dealt with under C has the greatest possibilities as regards the calculation of housing shortages.

VII. REFINING THE METHODS

45. In section V B of this paper it is pointed out that the supply side of the normative housing shortage concept is determined by the number of (standard) conventional dwellings and the requirement side by the number of private households. In practice however, not all dwellings can be taken into account in supply and not all private households can be considered as units requiring a separate dwelling.

46. As far as the supply side is concerned only those dwellings may be taken into account that are actually available for permanent private habitation. Therefore the following categories of dwellings should be excluded:

- (a) Dwellings fully in use for business purposes;^{1/}
- (b) Dwellings reserved for seasonal and/or secondary use;
- (c) Dwellings occupied by collective households.^{1/}

Dwellings reserved for seasonal and/or secondary use, whether vacant or occupied at the moment, should be eliminated as being exclusively intended by the owner for occupation during a certain period of the year only, and therefore not available for normal permanent use by a private household.

Dwellings occupied by collective households should also be eliminated, since this paper deals only with housing requirements and shortages of private households. In particular since small collective households tend to occupy large conventional dwellings which are not converted for the purpose of these households but nevertheless meet their needs, these dwellings should be deducted from the supply as not being available for normal use by private households.

47. A certain proportion of the available mobile housing units should in principle be added to the number of dwellings. This procedure would however result in a housing supply figure indicating a heterogeneous group of units. Hence in calculating housing supply mobile housing units should preferably not be taken into consideration;^{2/} thus in practice supply is limited to dwelling supply.

^{1/} Although these units are excluded from conventional dwellings by the definition quoted in paragraph 19, they are mentioned here for exclusion when calculating dwelling supply, as some countries for understandable reasons do not apply the exclusion quoted in the recommended definition.

^{2/} This implies that on the requirement side also households living in mobile housing units should be eliminated (see paragraph 48).

48. As already pointed out on the requirement side also correction of the number of households is necessary. Here the following categories of private households should be deducted from the total:

- (a) Private households voluntarily living in hotels, etc.;
- (b) Private households of personnel of institutions, etc.;
- (c) Private households voluntarily living in mobile housing units.

As to private households in hotels, boarding houses and other lodging houses, a distinction should be made between the households of the keepers and the other households permanently living there. The private households of keepers of hotels, boarding houses, etc., are not in need of a separate dwelling. They occupy premises which do not conform to the normal concept of a dwelling but which fully comply with their housing requirements. Among the other private households living permanently in hotels, etc. a certain number live there because they are compelled to do so owing to the shortage of dwellings. This number should of course be included in the number of households requiring a separate dwelling. All other private households permanently living in hotels, etc. because they do not want to live in a separate dwelling should of course be excluded.

Private households of personnel of institutions, boarding schools, camps, etc. insofar as they do not live in dwelling but in the building in which the institution is housed are not regarded as requiring a separate dwelling. The presence of this type of personnel is very often required in the institution, so that certain members, together with their families, live on the premises of the institution.

Private households living permanently in mobile housing units should in principle be eliminated from requirements. Some, however, may be living in mobile units because of shortage of conventional dwellings. It might be worth while estimating this proportion and adding it to requirements.

49. Paragraph 28 implies that the population living in non-private households should be eliminated from the requirements side. In some countries, however, considerable numbers of potential households may be hidden in non-private households, e.g. in barracones, conventillos, working camps and the like. If the number of these potential households is likely to be considerable, an attempt should be made to estimate their number for inclusion in requirements.

50. Paragraph 30 implies that ideally every secondary family should break away from the multi-family household in which it lives. It may, however, be regarded as unrealistic to assume that all secondary families in fact require a separate dwelling, especially as in many cases secondary families in farmers' households are involved. According to the number of these cases and the social and economic conditions, a proportion of the secondary families may be deducted from requirements as not requiring a separate dwelling.

51. Finally a certain reserve of vacant dwellings must be added to requirements. This is required for normal operation of the housing market and may be smaller in rural than in urban areas. It seems impossible to indicate exactly what reserve is required. An average of 1 to 3 per cent of the dwelling stock seems to be generally adopted.

52. In many countries housing shortages tend to be concentrated in certain areas or towns. It is obvious that in these countries averages would hide considerable local differences and at the same time underestimate the national housing problem. It therefore seems essential that in these cases the shortages should be established locally and that the national shortage should be found by adding these together.

VIII. FINAL REMARKS

53. The housing shortage as calculated by the methods described - even when the method described in section VI C of this paper is used with the refinements described in part VII - may still underestimate the real needs in the housing market, for two reasons: First because a situation where each private household in need of a dwelling possessed one would not necessarily mean that the housing situation was satisfactory. There might be discrepancies, e.g. between:

- (a) The size of the dwelling and the size of the household;
- (b) The rent charged for dwellings offered, compared with what is regarded as desirable; and
- (c) The equipment of dwellings offered, compared with effective demand.

Secondly, because it can be expected that as the shortage decreases, the demand for improved standards will increase with rising living standards.

/Past experience

Past experience shows that norms appropriate to one period are apt to be regarded as impossibly low only a few decades later. Thus it is of great importance to establish advanced norms even in the calculation of present housing shortages. Existing shortages should be tackled without delay, as the future will certainly bring its own additional demands.

54. As is shown in the foregoing paragraph, the methods described for calculating present housing shortages do not make it possible to find the exact level of shortage. Nevertheless they are very valuable. When they are applied periodically (e.g. every ten years on the occasion of a housing census, or each year on the basis of a housing survey) they make it possible, when the same norms are used, to follow quite clearly the improvement in the housing situation and at the same time to check whether and to what extent the aims of the house building programme have been attained.

IX. SUMMARY AND CONCLUSIONS

55. The best methods of evaluating present housing shortages are derived from a comparison between the number of dwellings available and the number of households and/or families.

56. The most practical way of approaching the problem seems to be the normative method, using as general starting-point the principle that each private household should have its own conventional dwelling.

57. The relevant norm can most effectively be used as a basis for the calculation of housing shortages when the concepts of "dwelling", "households" and "family" are defined separately, i.e. in the way recommended by the United Nations. Other definitions also offer possibilities in this connexion, but the results will be much less satisfactory, because they leave more or less significant parts of the dwelling shortage unidentified.

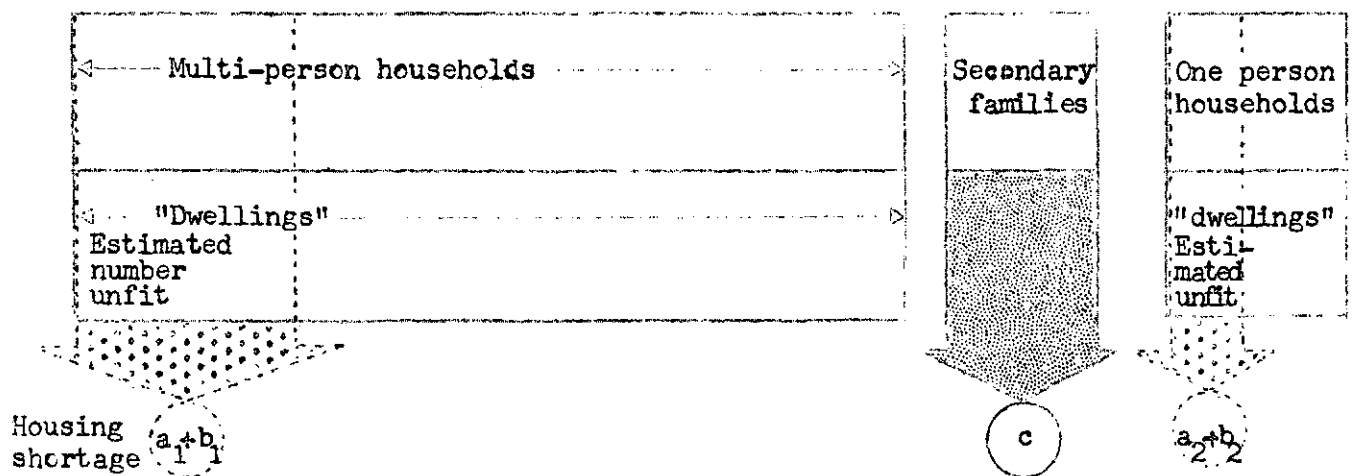
58. A housing census is no doubt the ideal basis for the calculation of housing shortages. Nevertheless when such a census is lacking housing surveys and partial censuses may also serve the purpose very well.

59. In the light of the above it may be concluded that it is of the utmost importance to improve statistics to the level recommended by the United Nations. This conclusion will be further crystallized in dealing the topics brought together under item 4.2.

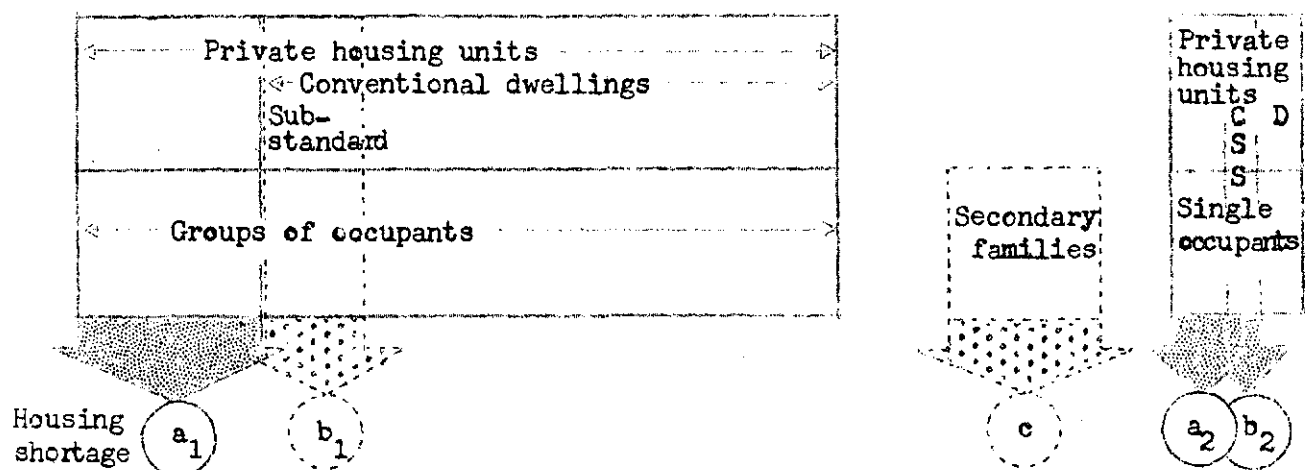
CALCULATION OF HOUSING SHORTAGES

(Using different definitions for "household" and "dwelling")

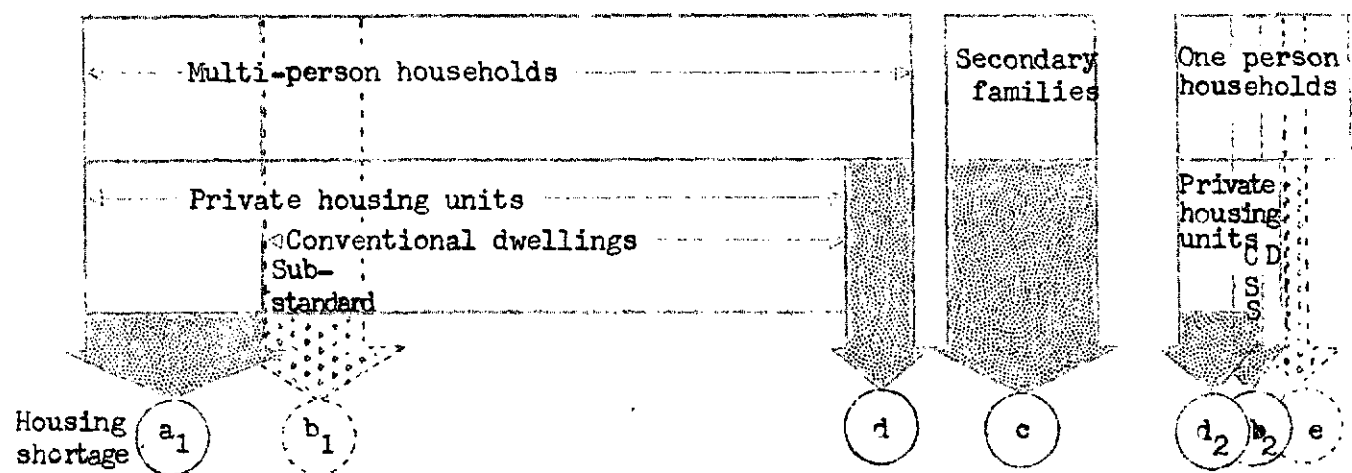
A - "HOUSEHOLD - DWELLING" CONCEPT



B - "DWELLING - HOUSEHOLD" CONCEPT



C - SEPARATE CONCEPTS



ELEMENTS DETERMINING HOUSING SHORTAGE ARE INDICATED QUANTATIVELY BY ARROWS AND QUALITATIVELY BY LETTERS

- ARROWS:**
- Figures exactly known
 - Figures to be estimated
- LETTERS:**
- The number of dwellings necessary to replace:
 - (a) The number of private housing units not falling under the definition of a conventional dwellings 1/
 - (b) The estimated number of sub-standard conventional dwellings 1/
 - The number of dwellings necessary to accommodate:
 - (c) The number of secondary families in multi-family households
 - (d) The multi-person households living additionally in private housing units
 - (e) The estimated proportion of lodgers requiring a separate dwelling

1/ 1 = Occupied by multi-person households

2 = Occupied by one-person households

NB - For a more accurate description of the significance of the letters see paras 35, 39 and 43.

