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COMMENTS OF GOVERNMENTS ON THE REPORT ON
INTERNATIONAL DEFINITION AND MEASUREMENT
OF STANDARDS AND LEVELS OF LIVING
(A summary prepared by the Secretary-General)

Table of contents

| I. Introduction                  | 1 - 2 |
| II. General comments             | 3 - 41 |
| General appraisal of the report  | 3 - 6 |
| Purpose of level of living comparisons | 7 - 12 |
| Definition of the concept "level of living" | 13 - 14 |
| General approach to a study of levels of living | 15 - 18 |
| The need for differentiated information | 19 - 20 |
| Absolute levels and rates of change | 21 |
| Principles underlying the choice of components and indicators | 22 - 26 |
| General statements concerning the indicators selected by the Experts | 27 - 32 |
| The use of monetary indicators | 33 - 35 |
| Synthetic indicators | 36 - 39 |
| Technical statistical viewpoints | 40 - 41 |
| III. Remarks concerning specific components and indicators | 42 - 108 |
| Health, including demographic conditions | 42 - 49 |
| Food and nutrition | 50 - 55 |
| Education, including literacy and skills | 56 - 67 |
| Conditions of work | 68 - 73 |
| Employment situation | 74 - 83 |
| Aggregate consumption and savings | 84 - 91 |
| Transportation | 92 - 95 |
Table of contents (cont'd)

<table>
<thead>
<tr>
<th>III. Remarks concerning specific components and indicators (cont'd)</th>
<th>Paragraphs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing</td>
<td>96</td>
</tr>
<tr>
<td>Housing</td>
<td>97 - 99</td>
</tr>
<tr>
<td>Recreation and entertainment</td>
<td>100</td>
</tr>
<tr>
<td>Social security</td>
<td>101</td>
</tr>
<tr>
<td>Human freedoms (and other non-material aspects of living)</td>
<td>102</td>
</tr>
<tr>
<td>Priority of indicators</td>
<td>103 - 108</td>
</tr>
<tr>
<td>IV. The promotion of national statistics</td>
<td>109 - 116</td>
</tr>
</tbody>
</table>

List of countries from which comments were received

Annex
I. **Introduction**

1. At its eighth session (April 1954), the Statistical Commission requested that governments be asked to examine and comment upon the proposals contained in the Experts' Report on International Definition and Measurement of Standards and Levels of Living (document E/CN.3/179). The present paper presents an analytical summary of the comments received by the Secretary-General in answer to:
   
   (a) a note verbale addressed to Member Governments in order to obtain general comments on the Experts' Report;
   
   (b) a circular letter addressed to the central statistical agencies of countries, asking for their observations concerning statistical aspects of the report.

2. Countries from which comments were received are listed in Annex A. They are 32 in all, of which 4 have answered only the note verbale and 20 only the circular letter, whereas 8 have answered both. In the latter case, the comments received directly from central statistical agencies are substantially the same as those which were communicated in response to the note verbale. Many answers from central statistical agencies contain interesting general observations concerning the problem of defining and measuring levels of living, in addition to statements of a more limited technical character. The two sets of answers are therefore of the same nature and do not need to be kept separate in the present summary. A few countries have added to their answers technical statements of competent ministries (agriculture, education, health, etc.). These have also been taken into consideration in the summary.
II. General comments

General appraisal of the report

3. Most of the answers express high appreciation of the Experts' Report. It is welcomed, for example, by India and the United States, as a first and most important step in tackling the difficult problem of international definition and measurement of levels of living. The general principles laid down in the report are considered by Guatemala and several other countries as a suitable basis for the establishment of statistical indicators by means of which certain important aspects of levels of living in different countries might be compared. These countries also consider that such measurements, if undertaken periodically, might reveal changes in levels of living that are due to the efforts of national and international organizations to improve the conditions of life and work among peoples.

4. Most of the commentators also express full agreement with the general conclusions derived from the Experts' Report by the Statistical Commission at its eighth session (E/2569, pages 10-11), namely that:

"(a) No single index of the level of living can be devised to measure as a whole differences in levels of living between countries;

"(b) No type of monetary index as a general international measure of levels of living can be recommended;

"(c) The problem of levels of living should be approached by an analysis of many 'components' representing generally recognized values (such as those in the fields of health, nutrition, education, etc.) and by the use of various 'indicators' for the many types of components;

"(d) The statistical analysis of 'indicators' and 'components' should be accompanied by background information of a descriptive nature;

"(e) In addition to current efforts in the field of economic and social statistics to improve the factual basis for various inter-country comparisons, family living studies should be undertaken for the purpose of securing more comprehensive information on the actual conditions of life and work of individuals and families;

"(f) Annual reports on levels of living, as requested by the General Assembly resolution 527 (VI) would not be feasible at present."
5. Complete agreement does not seem to exist among the countries with respect to conclusion (b) of the Commission. Certain countries, like the USSR, refer explicitly to the use of monetary indices for the particular purpose of measuring changes and differences in the level of living in individual countries (cf. paragraph 34).

6. Most countries seem to agree with Finland that the above conclusions indicate the general direction to be taken in future work in this field of study. But the commentators raise numerous questions with respect to the Experts' tentative list of components and indicators, both from a conceptual and a practical point of view. Some of them also express objections of a more general character, bearing upon the scope and purpose of level of living comparisons as outlined by the Experts. All these objections have to be carefully considered, and they have therefore been reported in some detail in the present summary, even though, in certain cases, the statements cited are derived from only one or two answers. Many of them have already been discussed in the Experts' Report, but evidently some commentators have sought to indicate more precisely their implications.

Purpose of level of living comparisons

7. Most commentators would seem to take it for granted that the interest of the United Nations in the problem of defining and measuring levels of living naturally derives from Article 55 of the United Nations Charter, which lists "higher standards of living" among the conditions necessary for achieving "peaceful and friendly relations among nations". They also seem to agree with Canada that a basic report on international definition and measurement of levels of living, like the one presented by the Experts, represents a logical step in view of the unsatisfactory material available in this field.

8. This point of view is challenged by Australia. The Australian answer contends that resolution 527 (VI), in which the General Assembly first expressed the wish for annual reports on levels of living, isolated the reference to levels of living from its full context in Article 55. Without denying the importance of better knowledge of living conditions generally, the immediate concern of governments is said to be the creation of economic stability, full employment and conditions of economic and social progress, as well as other practical measures enumerated in Article 55. It is felt that the emphasis on
levels of living in resolution 527 (VI) has diverted much of the time of national and international bodies to studies of the purely theoretical problem of defining and measuring levels of living for purposes of international comparison. The Experts' Report, coupled with the interim comments thereon by the Statistical Commission, suggests, according to this statement, that little purpose is served by such studies.

9. Some countries stress the need for an elucidation of the practical purposes of international level of living comparisons. Canada points out that the report offers an unconvincing reason for the framework of living level measurements by referring only to the utility of such measurements for the purpose of "international reporting" (cf. paragraph 199 of the Report). The Netherlands suggests that one possible purpose of international level of living comparisons might be the ranking of countries according to their need for "technical assistance". This use is considered to be of limited scope, however, as a successful development of under-developed countries does not depend primarily on a clear insight into the differences of levels of living. The possibilities of investment and the earning capacities of the population are thought to be of far greater importance.

10. An apprehension that studies of levels of living might be launched on a purely theoretical basis can be traced also in some other answers. France emphasizes that it is important, in this kind of study, to remain "extrêmement concret", i.e. extremely specific and practical. In order to achieve this, certain limitations in regard to the scope of international level of living comparisons are recommended (cf. paragraphs 31 and 32 below).

11. On the other hand, many countries express a positive opinion in regard to the usefulness of level of living measurements. This is the case, in particular, of the United States. This country commends the Experts for having recognized the need, which is thought to be common to all countries, for factual information on current economic and social status to be used in planning for improvements and in measuring the effectiveness of programmes already in operation and those newly designed. The Experts' Report is found to be both imaginative and realistic in proposing the measures which are most urgently needed for these purposes, in setting the goals which could be adopted in countries which are short of statistical resources and in including
priority ratings which may serve as guides to those who have recently begun social development programmes and require benchmarks by which they may gauge their progress. (Cf. paragraph 3 above).

12. The various statements referred to above are actually not as contradictory as would appear at first. Countries who have ventured critical opinions do not take an entirely negative view of level of living measurements and seem ready to admit their usefulness at least for national purposes. What they question is mainly the extent to which significant and useful inter-country comparisons can be carried out in numerical terms.

Definition of the concept "level of living"

13. Many answers express satisfaction with the conceptual clarification offered by the Experts in regard to the use of the terms "level of living", "standard of living" and "norm". It is thus generally accepted that the first of these terms should be employed to indicate actual conditions of life and work, whereas the second ought to be used in the meaning of living conditions which are considered adequate or desirable, the third to be understood as relating to desirable conditions as defined for specific purposes. The Netherlands points out, however, that a certain interrelation persists under all circumstances between the concepts referred to. As distinct from "standard of living", which is concerned with what ought to be, the concept "level of living" serves as a means of evaluating the adequacy of what is. It is thus more than a mere description of the way of living. Several countries have expressed similar points of view in their comments concerning the general principles underlying the choice of components and indicators, or in regard to the suitability of individual indicators.

14. Several countries, in particular India and the United States, explicitly approve the Experts' conception of "level of living" as "an organic unity embracing both material and non-material aspects of existence" (cf. paragraph 197 of the Experts Report). Opinions differ, however, in regard to the practicability of measuring the non-material components, as will be reported in some detail further on. Canada and the Netherlands contend that non-material elements fall outside the scope of statistical measurement and that the inclusion of such elements in the concept "level of living" makes it practically impossible to
answer the question how to measure and compare levels of living. The Experts are criticized for having maintained their concept of "level of living" to its fullest extent throughout the report, whereas they confine their recommendations to components and indicators which they believe are measurable. This is found to give the report a somewhat confusing character.

General approach to a study of levels of living

15. None of the answers takes exception to the general approach recommended by the Experts for a study of levels of living. It thus seems to be generally accepted that such studies should begin with an analysis of various "components" of levels of living and the establishment of statistical "indicators" relating to these components. Several answers point out the merits of this approach, particularly if it is possible to find unambiguously defined indicators which refer to clearly delimited aspects of the total life situation. In the view of the United States, for example, the Experts have taken a useful step forward by their efforts to isolate some items and set up priorities among them.

16. It also seems to be generally recognized that only partial knowledge of actual conditions of life and work can be achieved through this method. Ample background information in the form of descriptive material relating to economic and social conditions is thought to be necessary both for the interpretation of individual indicators and the evaluation of the total level of living situation within countries. The importance, in this connexion, of social and cultural analyses, is particularly emphasized in the answers from Japan, India and the United States. Many countries state that expanded family living studies, as outlined by the Experts, would provide a means to obtain a more complete and balanced picture of living and working conditions than the one provided by general statistical information relating to particular subjects.

17. Opinions differ in regard to the extent to which the "component approach" as such can be followed up. Some countries, like the United States, seem to be in favour of international comparisons that are carried out on the broadest possible basis and recommend, for this purpose, the inclusion of more diversified items. Other countries would rather confine numerical comparisons purporting to measure differences in levels of living to a limited set of statistical indicators.
18. It is pointed out by countries holding the latter view, for example the United Kingdom, that statistical indicators that are valid and useful in comparing levels of living in different countries are likely to be few; they would have to be very carefully selected and the statistics soundly based. The USSR, while recognizing that the use of any single indicator might lead to distorted and one-sided conclusions, contends that the Experts have gone to the other extreme: by introducing a great number of indicators, some of which are only indirectly related to levels of living, and some of which are scarcely amenable to quantitative treatment, they are said to have obscured the problem and rendered its solution equivocal. Greater precision would be achieved by reducing the scope of level of living comparisons so as to include only items which are susceptible of direct statistical expression.

The need for differentiated information

19. The Union of Soviet Socialist Republics also takes issue with the methodology described in the report as being devised for a study of the level of living of the entire population of countries rather than the level of living of particular socio-economic groups. Although the report incidentally refers to the need for information that is related to such groups, components and indicators described by the Experts are found to apply to the population as a whole. This is considered unsatisfactory in two respects:

(a) General averages have little significance in view of the wide differences in living conditions within a population. Moreover, the elements which determine living conditions are different for different socio-economic groups, which would make it necessary to envisage specific components and indicators for each such group.

(b) The relevance of level of living studies from the point of view of social conditions lies primarily in the knowledge they might convey in regard to the living conditions of workers. The Experts are said to have attached too little importance to this question which constitutes in itself one of the basic social and economic problems affecting the vital interests of the bulk of the population.
20. Many other countries, for example Canada, France, Egypt and India, have pointed out that general averages are insufficient for purposes of measuring levels of living. The need for data which are differentiated in regard to geographical, urban-rural, ethnic, occupational and socio-economic groupings is emphasized either in general statements or in comments concerning the suitability of various indicators recommended by the Experts.

Absolute levels and rates of change

21. The United Kingdom would have liked to find a clearer distinction made in the report between two different aspects of the problem, namely, first, as a problem of measuring changes over time in the level of living within a single country; second, as a problem of comparing the levels of living of two or more different countries at a given time. In the answer of the Union of Soviet Socialist Republics, this point of view is expanded in the following way: It would be appropriate to consider and study (a) the measurement of levels of living and of changes therein with reference to particular socio-economic groups of a given country; (b) the international comparison of the rates at which levels of living of particular socio-economic groups rise or fall; (c) the international comparison of absolute levels of living among particular socio-economic groups. Each one of these three aspects of the study of levels of living is said to involve specific requirements with regard to the selection and interpretation of statistical indicators.

Principles underlying the choice of components and indicators

22. Some commentators express their approval of the Experts' decision to select components and indicators from the point of view of internationally accepted values like those which come to the fore in the economic and social policies of the United Nations and the specialized agencies, particularly in connexion with their technical assistance activities. The Netherlands draws attention to the fact that the system of values underlying these activities largely coincides with the one which is inherent in what may be called the "western civilization". The use of this value system as a basis for comparative studies of levels of living is not found to be inappropriate, if
the aim of these studies is the rating of countries according to their need for technical assistance, although there might be some doubt as to the practical value of such ratings (cf. paragraph 9 above).

23. Countries representing the "eastern" civilization have not made a major point of this question. Japan, however, while expressing general approval of the Experts' tentative list of components and indicators, underscores the necessity of taking into account qualitative as well as quantitative differences when proceeding to a comparison of levels of living in different countries. For an adequate understanding of these differences, one should consider the particular circumstances of each country. Particularly in the case of measurement of levels of living among Asian countries, including Japan, it is desired that this consideration be fully taken into account.

24. Opinions differ in regard to the possibility of finding common denominators for the measurement of non-material components such as recreation and entertainment, social security and human freedom. While it is generally understood that the Experts have refrained from proposing indicators relating to housing and clothing, because of the many factors - topographic, climatic, social and others - which make it difficult to find a universally acceptable value basis for an appraisal of these components, the United States and the United Kingdom emphasize the desirability and possibility of comparisons that are limited to regions, and the usefulness of data on housing conditions for an evaluation of changes in national levels of living.

25. Doubts are also expressed as to the possibility of applying universal value judgements in an attempt to measure other specific components included in the Experts' tentative list. The United Kingdom states that the availability of statistical information is not the only pertinent factor. Even where statistics exist, differences in legislation and social outlook and other intangibles can make comparisons hazardous, if not actually impossible. Nor can difficulties like these be overcome by such simple devices as the use of standardized questionnaires in social surveys. After a discussion of the components and indicators proposed by the Experts, it is found that health, education and aggregate consumption hold out the greatest promise for fruitful comparison, whereas food and nutrition is subject to doubt and conditions of work, employment situation and transportation are unsuitable for international comparison at present.
26. Most countries, however, would seem to accept comparison on a wider basis than the one just referred to. Some countries, in particular the Union of Soviet Socialist Republics, attach considerable importance to working conditions and the employment situation and do not find comparisons in these fields impossible, even though certain difficulties relating to the interpretation of data may be encountered.

General statements concerning the indicators selected by the Experts

27. Several countries find, like Switzerland, that the list of components and indicators proposed by the Experts is fairly exhaustive and that a good knowledge of levels of living could be achieved if comparable statistics relating to the various items included in the list were available. Canada states that the Experts' tentative list is more clear-cut than other lists which have been proposed, and at the same time quite comprehensive, although the selected indicators may not always be the best possible.

28. However, the list is also criticized from various points of view. The Netherlands finds the collection of components and indicators rather heterogeneous, particularly as in several cases no attempt at a quantitative treatment is made. The Netherlands also draws attention to a certain ambiguity that seems difficult to avoid, in regard to the interpretation of several indicators. Finland, the Union of Soviet Socialist Republics, Portugal and other countries point out that some of the indicators have only a vague relation to the satisfaction of human needs and should properly be classified as background information.

29. It has already been reported that some countries criticize the indicators set forth by the Experts because they refer to the entire population of countries and do not easily lend themselves to a study of differences in levels of living that exist within countries, in particular differences pertaining to various socio-economic groups. (Cf. paragraphs 19 and 20 above).

30. The United Kingdom finds the indicators generally unsatisfactory for the measurement of levels of living in under-developed countries and recommends that the establishment of indicators suitable for such countries be given further consideration by the international organizations concerned. In the same line of thought, it is suggested by France that different sets of indicators be established for countries at different levels of industrial development.
31. The latter suggestion is based on the opinion that comparisons are useful when relating to countries which are similar in terms of economic development. Reference is made to the Experts’ statement in paragraph 155 of the report: “Comparison of relatively homogenous groupings of nations or territories may actually be more useful than other comparisons for certain planning, administrative and evaluative purposes of the various operating units of the United Nations and the specialized agencies; and they may be expected to be more meaningful in that they would involve fewer questions about the significance and comparability of the indicators”. Stressing this point of view, the commentator states that a comparison between the level of living of citizens of the United States of America and the level of living of a tribe in Uganda presents no real interest. It is known beforehand that the difference between the two is very important, and it would be useless to seek a common gauge for the purpose of measuring this difference. On the contrary, meaningful and practically useful comparisons can be made between levels of living in Liberia and in the Cameroons, for example, or between levels of living of the Swiss and the North Americans.

32. Because comparisons of this kind are thought to have a concrete significance, the commentator just quoted suggests that studies be undertaken with a view to establishing the most suitable indicators relating specifically to:

(a) modern industrialized countries;
(b) countries whose economy is more characteristically agricultural;
(c) under-developed countries.

The use of monetary indicators

33. Most countries explicitly agree with the Experts and the Statistical Commission, that no type of monetary index can be recommended as a general international measure of levels of living. Canada, for example, points out that monetary wages, even in two closely related economies, may give a misleading notion of comparative levels of living. The important thing is what money will buy, and this is not measured by monetary wages. Such figures are therefore subject to the same pitfalls as those which the Experts discuss in respect of national income statistics.
34. Japan, however, favours a limited use of monetary measurement, for example in expressing the value of per capita national income, per capita expenditure and the like. The Union of Soviet Socialist Republics makes a strong plea for the use of monetary indices in connexion with studies of wage levels. The Experts are said to be right in criticizing the defects of monetary indicators, but it is suggested that the function of statisticians is to correct and improve these indicators by means of suitable price index series and otherwise.

35. Referring to the Experts' recommendation that "tables of comparative prices in terms of the national currencies" should be annexed when figures for national income per capita are published, the United States recalls that it is doubtful whether available price statistics are representative of the prices paid by the population as a whole, and also whether a few basic commodities can be taken as representative of consumption, as they are consumed in such different proportion in different countries. This commentator agrees with the Experts "that the whole question of the official rates of exchange in the light of purchasing power parity differences is one that needs to be studies at the international level". (cf. paragraph 131 of the Experts' Report).

Synthetic indicators

36. Most countries seem to hold the opinion that no single index of the level of living can be devised to measure as a whole differences in levels of living between countries. The reason for this is explicitly stated in some of the answers, for example those of Belgium, Switzerland and Portugal: in addition to the more or less arbitrary choice of components, and of gauges for the evaluation of components, the combining of various features of living into one single index would require that weights be assigned to these features on the basis of a whole series of value judgements. In view of the heterogeneity of conceptions, any attempt of this kind is said to be likely to fail, in the sense that the results would not be generally accepted. It is pointed out by Portugal that the difficulty just referred to is of a fundamental nature and cannot be overcome by increasing the number and diversity of statistical indicators that are included in the computations.
37. These statements would seem to be in full accordance with the Experts' conclusion in paragraph 203 of the report that "such a single unified index of the level of living was neither possible nor desirable for purposes of international comparison under present circumstances". However, in paragraph 133 of the report, the Experts initiate a discussion of "synthetic" indicators which might be considered as generally relevant as determining levels of living or resulting from a level of living which has been achieved. The outcome of this discussion, as summarized in paragraph 204, is that certain "macro-economic" indicators related to national income, and the average expectation of life at various ages, can be taken to represent in some sense levels of living as a whole.

38. Only very few countries have had any observations to make to this point. Sweden and New Zealand seem to think that national income per capita might be used as a general indicator of the type just referred to (cf. paragraph 55 below). Norway, however, referring to the Experts' conclusion that no single index can be said to furnish a correct picture of levels of living in different countries, indicates a reservation as to the desirability of seeking to develop so-called "synthetic" indicators. According to this statement, it would at least seem doubtful whether such a procedure would prove productive. The Union of Soviet Socialist Republics, viewing the problem from a somewhat different angle, recommends that efforts be made whereby such important composite indicators of levels of living as real wages, in the case of workers, and real income, in the case of other social groups, may be internationally compared. An indicator of this type is considered in this answer to have a considerably greater value than the national income of the country as a whole.

39. Whereas Syria and China express regret that the Experts have not attempted to indicate how different measures could be combined, Argentina and New Zealand, recognizing that absolute levels of living elude measurement in the usual sense of this word, suggest that one might nevertheless speak of countries as better or worse off, without trying to establish the difference between them in quantitative terms. This would be equivalent to the ranking of countries, in the first place regarding individual indicators which are considered to be significant and for which statistical data are available.
Each country which kept fairly consistently in the top ten for all these criteria would be considered as having a high level of living, while a country which scored consistently fairly low would be regarded as having a low level of living. The commentator representing New Zealand, to whom the latter suggestion is due, does not quite see how one could get any closer than this to a measurement of levels of living as a whole.

Technical statistical viewpoints

40. Most of the remarks relating to technical statistical questions concern specific components and indicators and will be reported in section III of this summary. Speaking in general terms, Canada, Switzerland, the United Kingdom and several other countries point out that many of the indicators set forth by the experts require much more careful definition before statistics for them can be compiled and properly interpreted. Uniformity in terms and concepts is far from achieved, and standards for the collection and presentation of data, the computation of rates and the like, do not exist in many fields or have not yet been put into practice. The United Kingdom emphasizes that many of the statistical series which would be required are not being compiled in under-developed countries and, where they exist, they are very often based on rather poor primary data.

41. In view of all this, some countries indicate hesitation as to the possibility of carrying out international comparisons on such an extensive basis as outlined by the experts. Austria emphasizes the need for comprehensive explanatory information of a technical nature concerning the series furnished by individual countries. Only when a certain number of countries have displayed a sufficient amount of material, it would be possible to judge, according to the Austrian answer, what value these data might have for purposes of international comparisons. Above all, however, the national reports would have to be carefully reviewed by experts, as to their comparability, before the data are published, so as to avoid false inferences.
III. Remarks concerning specific components and indicators

Health, including demographic conditions

42. Indicators proposed by the Experts:
   (a) Expectation of life at birth;
   (b) Crude death rate;
   (c) Infant mortality rate;
   (d) Number of hospital beds in relation to the population;
   (e) Number of physicians in relation to the population.

43. Commentators would seem to agree generally that the health factor deserves special attention in comparative studies of levels of living. It is suggested by the Union of Soviet Socialist Republics, however, that certain features pertaining to health, particularly those of a demographic character, ought to be considered as the result of existing levels of living, or as background information, rather than part of actual living and working conditions. The indicators listed by the Experts, it is pointed out by Canada, have been used all along to measure health and health services. Reference is made to the Report of the Expert Committee on Health Statistics of the World Health Organization (document WHO/HS/56) where these indicators are said to have been correctly described and discussed.

44. Guatemala draws attention to the fact that a certain duplication is involved in indicators (a) and (c), as the average life expectancy at birth to a very high degree is a function of variations in infant mortality. It would therefore be better to replace indicator (a) as it stands by the average life expectancy at some higher age, for example at one year of age. This would not cause much difficulty, as pointed out by New Zealand, because the life expectancy at higher ages is given in life tables of which life expectancy at birth constitutes the first entry. The chief obstacle to the use of life expectancy figures is found by the United Kingdom in the fact that they are not available for many countries and, even where available, they are usually computed only at rare intervals as this computation requires a rather extensive use of detailed statistical information. Another shortcoming of these figures (and of other similar averages, such as average age at death, life or working years lost, etc.) is seen by Canada in the time lag between the conditions causing the mortality reflected in the figures and the period to which these refer.
45. The proposal to use crude death rates as indicating differences in levels of living is criticized by Puerto Rico and Guatemala for the reason that these rates are highly influenced by the age distribution within the populations concerned. It is pointed out for example that Sweden and Puerto Rico have approximately the same crude death rate, whereas the age specific death rates are much higher in Puerto Rico, in particular the infant mortality rate, which is many times higher. The crude death rate is found by the United Kingdom to be a rather poor indicator of trends, particularly in territories where fairly rapid changes in the age distribution can be expected to take place. Although crude death rates are more generally available, it is considered desirable that death rates adjusted for differences in age distribution be employed instead. The United Kingdom suggests that the proportion of deaths under forty-five years of age might be used as an indicator.

46. The infant mortality rate is generally found to be a good indicator. Panama and the United Kingdom indicate their support of the Experts' recommendation that a distinction be made between neo-natal mortality and total infant mortality, specially for under-developed territories, where there is a particularly high mortality in the first weeks of life. Also child mortality between one and five years of age would seem to be a useful indicator, according to Israel, and so would maternal mortality according to this country as well as Panama and Canada.

47. Many countries mention lack of registration, or under-registration, of vital events as an important factor limiting the use of the above indicators. In regard to their actual significance, it is pointed out by the United States that intensive health measures may result in a precipitous decline in mortality without any immediate change in the other components of levels of living. This indicates the need of supplementary indices not directly affected by such measures.

48. Indicators (d) and (e) relating to medical facilities and medical personnel are also generally accepted as a basis for comparison, although, as stated for example by Sweden, they may not be valid where differences are small due to the lack of uniform definition of "hospital beds" and "physicians". Statistics relating to the services performed by medical institutions (including dispensaries) and medical personnel are thought by France to be more closely related to living conditions than just the number of hospitals and doctors.
In view of the extreme shortage of qualified physicians in most of the
under-developed countries, India underscores the relevance for these countries
of data concerning auxiliary health personnel like nurses, health visitors and
midwives. Several answers, like those of Canada, Guatemala and India, stress the
need for separate data for urban and rural areas, as the latter are often
underprivileged in regard to medical facilities and medical personnel, even in
advanced countries.

49. As additional indicators, data relating to morbidity and mortality from
specific diseases like cholera, smallpox, plague, malaria and tuberculosis are
thought to be of significance. The Union of South Africa recommends the use of
the tuberculosis death rate as a priority indicator.

Food and nutrition

50. Indicators proposed by the Experts:
(a) National average food supplies in terms of calories at the "retail
level" compared with estimated calorie requirements;
(b) National average food supplies in terms of total proteins at the "retail
level";
(c) National average food supplies in terms of animal protein at the "retail
level".

51. Whereas food supplies and the nutritional status of populations is
generally considered to constitute an important element of levels of living,
several countries express critical opinions as to the value and significance
of the now available statistical data. It is recognized by the United States
that few countries possess information of sufficiently wide coverage concerning
the actual intake of food, so that the data derived from "food balance sheets"
relating to per capita food supplies in terms of calories and proteins constitute
the most feasible present basis of comparing food consumption in different
countries. But the shortcomings of these data are emphasized in many answers.

52. India points out that data on fruit, vegetables, milk and meat, etc., are
not as readily available as those on other food items, that usually it is
difficult to obtain reliable estimates for trade stocks, and that the requirements
for feed, seed and wastage, etc., are estimated on the basis of conventional
rates. Thus, as stated by Canada, the best calculations of this kind should be
considered as statistical approximations and inferences from them should not be made
without considerable knowledge of estimation procedures followed and the basic data
used.
53. France, the Netherlands and the United Kingdom emphasize that these data cannot
be given or are highly unreliable in respect of primitive areas where a large part
of the population lives upon subsistence agriculture, fishing and hunting. Guatemala
reports that recent research has given surprising results in regard to the
nutritional value of a whole series of foodstuffs which are regularly consumed by
the rural population but have not hitherto been included in statistics of the
agricultural production because they lack commercial value.
54. Data derived from "food balance sheets" are also considered to be insufficient
because they relate to countries as a whole. As stated by Argentina and the United
States, data that could be interpreted in terms of adequacy of food supplies for
various economic segments of each country's population would be more suitable for
international comparison. The United Kingdom finds available statistics on food
supplies unsatisfactory because they do not reflect special conditions, such as the
feeding of children. Data relating to conditions of the latter kind are thought to
indicate the health of the community more directly than national averages.
55. Certain critical viewpoints are expressed in regard to the actual significance
of nutritional data (supply figures as well as statistics on the intake of food).
Japan contends that the food composition is so different between rice-eating and non-
rice-eating peoples that a mere comparison in terms of calories is unsatisfactory.
The United States points out that the consumption of certain protein-rich foods is
presumed to ensure an adequate intake of mineral salts and certain vitamins but does
not necessarily indicate that diets are satisfactory in regard to their content of
vitamin C and some other elements. The United Kingdom emphasizes that generally
accepted nutritional standards, by which the adequacy of food supplies and food
consumption is to be assessed, while remaining somewhat controversial in regard to
calories, are lacking for proteins and other elements. Data relating to the supply
of animal protein are thought by the United Kingdom unsuitable as an indicator of
levels of living both because consumption may be affected by religious beliefs and
because vegetable sources may be the best means of meeting deficiencies in particular
areas. In respect of industrially advanced countries, Sweden draws attention to the
fact that increased mechanization in various fields is doing away with much of the
heavy physical labour earlier performed, resulting in a decrease of average calorie requirements. This should be taken into account both for a correct interpretation of time series and when inter-country comparisons are made.

Education, including literacy and skills

56. Indicators proposed by the Experts (as revised by UNESCO, cf. page 33 of the report):

(a) Proportion of children 5-14 years of age attending or enrolled in schools;
(b) Pupils per teacher in primary schools;
(c) Percentage of population literate, 15 years of age and over, total and by sex;
(d) Median number of years of formal schooling completed by population 25 years of age and over, total and by sex;
(e) Daily newspaper circulation per 1,000 inhabitants;
(f) Books (titles) published per year per 100,000 inhabitants.

57. The list of indicators originally set forth by the Experts included, in addition, data relating to the number of primary schools and the enrolment in "post-primary" and "technical" schools. Several commentators state that no uniform classification of schools is possible at present. So many other objections are made to the items just mentioned, that the revision proposed by UNESCO seems to be entirely justified. The following summary is limited, therefore, to remarks concerning the indicators as listed in paragraph 56 above. Most countries seem to find that these indicators are acceptable, but several of the commentators add certain qualifications, and some of them find (e) and (f) unsuitable.

58. In general terms, it is pointed out that international comparisons in the field of education are difficult because of fundamental differences in the educational system of various countries. Canada states that each aspect of a culture pattern is more significant in relation to the whole of that culture than it is to the same aspect of another culture. International comparison of school attendance figures and the like might therefore lead to wrong conclusions about the extent to which education (be it formal or informal) is meeting the needs of any particular society. The proposed criteria are valid, this commentator points out, only in so far as the educational standards of the technological societies of the "western" type are extended to the rest of the world.
59. In regard to indicator (a), several countries find it incorrect to relate
school attendance to the age group 5-14, as in some countries children enter school
at the age of 5, in others at the age of 6, and in still others at an even more
advanced age. The United Kingdom suggests that it would be sufficient to show the
proportion of children of school age actually enrolled in schools, school age being
defined according to each country's own legal requirements or current practices.
60. Indicator (a) as it stands is evidently meant to include all children under
the age of 15 enrolled in, or attending primary schools and post-primary schools,
whether the latter are designated as "technical", "vocational" or "secondary".
Some commentators find that more attention should be given to the role of secondary
and higher education. France suggests that, for this purpose, a new indicator be
added to the list to show the proportion of children and young people 15-24 years
of age enrolled in, or attending, educational institutions of any kind.
61. El Salvador draws attention to the fact that school enrolment and school
attendance are two different things which differ considerably in many under-developed
countries. Only data relating to enrolment would seem to be generally available.
62. Indicator (b) - pupils per teacher in primary schools - would seem acceptable
to most of the commentators. France and Canada point out that an average of this
kind is likely to conceal wide differences that may exist between rural areas with
small classes, particularly in sparsely populated regions, and urban areas where
classes usually are big.
63. Indicator (c) - percentage of population literate, over 15 years of age - is
subject to criticism, according to several answers, because no generally acceptable
definition of literacy exists. The Netherlands, the United Kingdom and other
countries where practically the whole population knows how to read and write seem
to be in favour of a definition reflecting the extent to which the population is
actually able to profit from serious literature. The United Kingdom suggests that
priority should not be attached to the literacy rate as an indicator of educational
levels. Other countries, for example India, in view of their present efforts to
disseminate the ability to read and write among their citizens, evidently attach
great importance to this rate.
64. Indicator (d) - median number of years of formal schooling completed by
population 25 years of age and over - was not included in the list originally
proposed by the Experts. Most countries seem to find that its introduction
constitutes an improvement, although the United Kingdom and France contend that this measure is only applicable to relatively developed countries. Guatemala thinks that this indicator would be quite useful and points out that inquiries concerning formal schooling constitutes a fairly common feature of population censuses, also in less developed countries.

65. Panama seems to fear that data concerning the educational level of the adult population would misrepresent the efforts of less developed countries to improve general education, as they would compare unfavourably with countries in which similar efforts were started much earlier. To avoid this, this commentator would prefer to include in this comparison the total population over the age of 7. Norway points out that people in the higher age groups, in advanced countries as well as in less developed countries, have had their education under entirely different social conditions, with less possibilities and less need for formal schooling than the younger generations. Therefore, differences in the age structure would influence an index of educational levels based on indicator (d) as it stands. According to the commentator just quoted, it would probably be more correct to compare the educational level of people aged 25-50 instead of, as suggested by UNESCO, all persons 25 years of age and over.

66. The significance of indicator (e) - newspaper circulation - is seriously questioned by Canada. Can the fact that metropolitan areas are served not only by papers reporting community, national and world news but also by papers of the tabloid variety be taken as a sign that levels of living are higher than in communities devoid of the latter type and with lower circulation per 1,000 inhabitants? It would seem impossible, indeed, to avoid value judgements in this respect, according to this commentator. Otherwise, very few remarks have been made in regard to this indicator. Sweden and Switzerland recommend the inclusion of weekly papers and periodicals. According to France, it would be proper to include at least for certain territories, newspapers that are published outside the territory. The United Kingdom maintains that both this indicator and the following are really only applicable in developed areas.

67. Indicator (f) - books (titles) published - has been characterized in many of the answers as being of limited significance and even likely to entail false inferences when used for inter-country comparisons. It is pointed out by the Netherlands that English-speaking countries accord more opportunities for the
publication of books than countries whose language is less extensively used. Countries like Canada and Puerto Rico where the current language is English or Spanish draw attention to the fact that a good deal of not most of the books sold in their territories are imported. Similar conditions obtain evidently in Non-Non-Self-Governing Territories, as pointed out by France. Native authors in these territories usually get their books published in the metropolitan country. A better measure of intellectual activities would be the number of books (copies) sold or actually read.

Conditions of work

68. Indicators proposed by the Experts:
   (a) Hours of work per week;
   (b) Wages per week of industrial workers;
   (c) Real wages of industrial workers;
   (d) Normal hours of work per week as laid down by law or by collective agreement for workers in industry;
   (e) Number of paid holidays per year in industry;
   (f) Minimum age of eligibility for employment.

69. As already mentioned (cf. paragraphs 19 and 38 above) the USSR regards the conditions of workers as the main objective of studies concerning levels of living and criticizes the Experts for not having paid sufficient attention to conditions of work and employment. Relevant factors to be taken into account for this purpose are said to be, for example, nominal wages, taxes and contributions, pensions, allowances, grants and free services received by the workers, the price index for goods and services purchased by workers, the number of dependents per worker, the percentage of unemployed, etc. These ought to be studied with a view to observing changes in the level of living among workers and also with a view to determining what differences exist in regard to the level of living of corresponding groups in different countries.

70. The obstacles encountered when international comparisons are attempted in this field - limited scope of available data, incomplete coverage, lack of uniformity in regard to definitions and methods of collection and the like - have been emphasized by many countries in their comments on the Experts' Report. If computed on the basis of existing statistics, it is pointed out by the United Kingdom, indicators would at best refer to employees of Governments and well-established industries.
Pertinent data from small establishments are usually difficult to obtain, particularly in the case of new industries, which very often are set up on a small scale. Statistics which the International Labour Office publishes on conditions of work suggest, according to Canada, that the difficulties of securing comparability are considerable. It is found that much of this kind of information is difficult to reduce to meaningful figures.

71. Whereas the indicators proposed by the Experts relate to industry, several countries, for example Argentina, the Netherlands and India emphasize that working conditions in trade, commerce, transportation, agriculture and sylviculture are of equal importance. Argentina draws attention to the fact that a major part of the world's population is engaged in agricultural occupations.

72. The Netherlands points out that there is a certain ambiguity involved in the interpretation of statistical data relating to hours of work, particularly when they are used for purposes of international comparison. Hours of work may be low as a result of high prosperity, or as an indication of poverty in connexion with general lack of work, and also because of climatic conditions.

73. As additional indicators under the heading "working conditions", Japan suggests the percent of labourers organized in trade unions and the rate of labour accidents.

Employment situation

74. Indicators proposed by the Experts:
(a) Proportion of "economically active population" in total population, by sex;
(b) Proportion of persons under 20 years of age in economically active population;
(c) Proportion of persons 65 years of age and over in economically active population;
(d) Proportion of economically active population unemployed;
(e) Percentage distribution of economically active population by status, i.e. employees, employers and workers on own account, and unpaid family workers.
(f) Percentage distribution of economically active population by principal industrial and occupational categories.

75. The Union of Soviet Socialist Republics emphasizes the importance of statistics relating to employment and unemployment and points out that unemployment affects not only those who are themselves afflicted thereby, but the working class as a whole. Figures that are able of showing at least prevailing trends constitute therefore an extremely important source of information in studies of levels of living.

76. Other countries seem to agree with this statement, but several of them cite the many difficulties involved both in an interpretation of available data for individual countries and in inter-country comparison.

77. Some countries recall that different practices obtain with regard to the evaluation of the "economically active" population in connexion with population censuses. The United Kingdom maintains that it is almost impossible to define, let alone evaluate, the "economically active" population in less developed territories, and France points out that similar difficulties are met with also in the more advanced countries, particularly in regard to unpaid family workers in agricultural and other occupations. Special attention should be devoted, according to the French answer, to young people in the age group 14-20, who very often hold a part-time job while following vocational courses. Norway suggests that occupational data relating to this group may indicate to what extent countries are able to provide vocational, technical and higher education to their young people.

78. France also emphasizes that in under-developed territories the distinction between employees, employers, workers on own account, and unpaid family workers, can be applied only in so far as agricultural, commercial or industrial enterprises of a European type are concerned. A similar classification is difficult to carry out for enterprises belonging to the traditional economy consisting of small trades, handicrafts and subsistence agriculture. Both France and Norway report that they have experienced difficulties in applying this classification to certain categories within their own countries. It is pointed out by France that the prevailing taxation system may determine to what extent family members are counted as unpaid or paid workers.
79. Whether data concerning the occupational structure of populations can be regarded as indicators of levels of living is explicitly doubted by New Zealand. Norway points to the value of such data as background information but emphasizes, like France, that they must be much more specified than foreseen in the Experts' proposal in order to be really useful for this purpose.

80. In regard to indicator (d) - proportion of economically active unemployed - Canada, Guatemala and several other countries point out that the status of "unemployed" cannot easily be determined in non-organized sectors of the economy and less developed areas, particularly in respect of self-employed persons and unpaid family workers. There seems to be unanimous consent that the problem of determining and measuring under-employment deserves to be thoroughly examined, as emphasized by the Experts themselves. The Indian answer points out that in countries like India there is a large measure of under-employment. Japan contends that unemployment statistics would have little value from the point of view of international comparability if no regard were to be given those not totally employed which constitute a considerably large number in Asian countries including Japan. Puerto Rico states that many of the definitions which are normally used in defining employment and unemployment in labour force statistics must be modified so as to take care of under-employment when dealing with under-developed countries and countries whose industrial and economic status is rapidly changing.

81. Belgium and Canada point out that current unemployment statistics for industrialized countries lack comparability because derived from different sources and presenting an unequal coverage. Sweden states that its own unemployment statistics, while referring to 30 per cent of all workers in mining, manufacturing and construction, covers only 33 per cent of the total labour force.

82. If it were possible to compile employment and unemployment data on a uniform basis, their interpretation would nevertheless remain ambiguous, New Zealand remarks. It is a matter for discussion whether, in industrialized countries, an unemployment figure of one, two or three percent is to be regarded as normal. The Netherlands points out that the proportion of economically active in certain age groups may be low because the general welfare
is so high that there is no need for all people, e.g. married women, to hold a job, or it may be low because there are many sick and invalids as a result of general poverty.

83. Additional indicators proposed under this heading by the United States relate to self-help activities among disabled persons, land tenure, and proportion of agricultural workers who are landless.

**Aggregate consumption and savings**

84. Indicators proposed by the Experts:
   
   (a) Proportion of national income spent on food;
   
   (b) Public expenditure spent on social services as a proportion of national income;
   
   (c) Index of, and rate of change of, "personal consumption" per capita;
   
   (d) "Personal consumption" as a proportion of national income and index of changes therein;
   
   (e) Index of, and rate of change of, investments and savings per capita;
   
   (f) Investments and savings as a proportion of national income.

85. While all these indicators are related to national income, the Experts did not include national income itself among the indicators, for reasons stated in paragraphs 131-134 of their report. Some commentators express surprise at this, as national income is commonly thought of as a measure of the aggregate resources available a country during a given period for consumption and increasing its wealth. Useful background information can be conveyed, it is believed by France, by figures giving total national income and national income per head, in terms of the national currency, as well as the distribution of national income by principal branches of economic activity. New Zealand thinks that a simple figure of total national income per head, converted to a common currency, though having its weaknesses, would be more useful than the somewhat complicated indicators set forth by the Experts. Sweden and others emphasized that inter-country comparisons of national income figures are difficult and certainly not to be recommended in respect of countries whose economy includes a large non-monetary sector, but they maintain that for individual countries the national income per capita may be used as an overall measure of economic
progress. Argentina, however, takes the view that it cannot be taken for
granted that economic progress under all circumstances is equivalent to higher
levels of living.

36. Because of the lack of uniformity in estimating depreciation, the
United Kingdom would prefer that the concept "national income" be replaced
throughout by that of "gross national product" or "gross domestic product".
Also, from a strictly technical point of view, objections are raised in regard
to certain formulations used by the Experts. Thus, public expenditures for
social services cannot be conceived as a part of national income, even though their
amount can be compared with national income. Personal consumption is usually
shown as a part of gross national expenditure or else as a part of personal
income after taxes. Although it might be suitable to establish a comparison with
national income, presenting personal consumption as a proportion of national
income is found by Canada not to be quite correct.

37. Indicator (a) - proportion of national income spent on food - would
seem to have met with approval by most of the commentators as meaningful
at least for gross comparison between countries, on the assumption, formulated
by Sweden, that in wealthier countries a lesser part of income is spent for the
essentials of life than is the case in poorer countries. Norway suggests that
information also be given concerning "food as a proportion of total personal
consumption". It is felt that this as an indicator would give a better picture
of levels of living than perhaps any other available single figure. France, the
United Kingdom, Canada and Guatemala point out, however, that estimates of this
kind are unlikely to be available in under-developed territories for many years.
Anyhow, a comparison between industrialized and commercialized countries, on the
one hand, and countries with a large subsistence production, on the other, are
said to be meaningless. Time series for individual countries where subsistence
production is diminishing might be difficult to interpret.

38. Indicator (b) - public expenditure spent on social services as a proportion
of national income - has been objected to from a formal point of view, as
reported in paragraph 36 above. For other reasons also, this indicator is
rejected by most of the commentators. According to Japan, difficulties would
be felt in separating or estimating expenditure for social services from
government consumption expenditure, specially in the case of local government.
As pointed out by the United Kingdom, social services would have to be defined
not only in general terms but also in particular to say whether the term refers
only to current expenditure on goods and services or includes, in addition,
capital expenditure and transfer payments. Private charitable institutions
and missionary societies fulfill in many areas tasks which elsewhere have been
taken over by the government. The Netherlands asks whether their expenditures
be included. Sweden maintains that this indicator is unsuitable as a measure
of levels of living: high expenditures for social welfare may in some instances
be taken as a sign that people are poor, whereas, in other instances, they
clearly are a result of measures taken by "wealthy" countries with a view to
equalizing income.

39. In regard to indicators (c) and (d), both referring to "personal
consumption", the United Kingdom and other countries reject (d), as the ratio
of "personal consumption" to national income may simply reflect the structure of
the national economy: a high value of indicator (d), it is pointed out by
New Zealand, may be indicative of a low level of living, but, at the other end
of the scale, a low value of this indicator may be incidental either to a high
level of living or to a forced rate of investment. On the contrary, indicator (c)-
index of, and rate of change of, "personal consumption" per capita1/ is considered
by most countries as relevant for studies of levels of living, although some
of them state that they do not themselves possess at present the necessary
data for an evaluation of this indicator. It is pointed out by Sweden that
certain expenditures of importance for the consumption level belong to the public
sector and should be included. (This was also the opinion of the Experts
according to paragraph 105 of their report and that is apparently why they
choose the expression "personal consumption" instead of "private consumption".)

90. Absolute figures for the private consumption per capita are sometimes used
as a measure of levels of living. As emphasized by Sweden and other countries,
this cannot be recommended in view of the extremely varying role of subsistence

1/ A better formulation would seem to be: rate of change of "personal
consumption" per capita in terms of constant prices (cf. paragraph 90).
activities, differences in price levels, etc. On the other hand, index series relating to the average "personal consumption", if computed in terms of constant prices, are thought by India, the United Kingdom and others to be able to show changes which occur in levels of living. Sweden thinks that the study of such index numbers may reveal whether the gap between wealthier countries and poorer countries is diminishing or increasing.

91. Indicators (e) and (f), which both relate to savings and investments, cannot be considered as measures of current levels of living, according to several answers, although it is admitted for example by India that they are of interest for an interpretation of the present situation in the light of activities which might bring about a higher level of living in the future. Summing up, Sweden states that only indicators (a) and (c) are of direct relevance for a study of levels of living. It would seem that this represents a fairly common opinion among the commentators.

Transportation

92. Indicators proposed by the Experts:

(a) Kilometres of railways per 100 square kilometres of area;
(b) Number of passenger-kilometres per year per 100,000 population;
(c) Freight ton-kilometres per year per 100,000 population;
(d) Kilometres of roads separately for metaled and non-metaled roads per 100 square kilometres of area;
(e) Number of vehicles, power-driven (separately for trucks and cars); and animal-driven, per 100,000 of population;
(f) Number of air passenger-kilometres per 100,000 of population.

93. Although one or two answers express the opinion that all these indicators are of interest for an appraisal of levels of living, a certain hesitation seems to prevail among commentators concerning the actual significance of "transportation" in this context. As stated by the United Kingdom, the indicators may show the development of a form of transport in a particular territory, but their value must be limited for international comparison since they must be interpreted in the light of topographic and economic conditions in each territory. Furthermore, because of the difficulty of weighting the transport indicators into a single
single index, it would seem that transportation can scarcely be looked upon as a single measurable component of levels of living. Puerto Rico after a similar discussion of the proposed indicators, recommends that a single, simple measure be used: since transportation of goods may be viewed as an intermediate input, and only passenger transportation as an end product, the latter would suggest itself as the best measure. It is also thought to be the one easier to estimate on a global basis. The fairest comparison between countries would thus be provided by total internal (including intra-urban) passenger-kilometres per 100,000 population.

94. It would seem that the indicators proposed under the heading Transportation are sufficiently concrete so that differences arising in international comparison can be clearly identified, making these indicators more open to criticism than those which have been proposed under other headings. Various remarks and suggestions made by different commentators can be summarized as follows:

(i) The need for transportation is a function of both area and population. It is therefore not sufficient to relate the mileage of railways and roads to the area of countries. These indicators should in some way also be tied to the size of the population. (France, Norway)

(ii) The number of passenger-kilometres should include travel by bus and private car. Similarly the number of freight ton-kilometres should include transport by lorries. In both cases, it would also be necessary to take into account inland water transport. (France, United Kingdom, Guatemala and others)

(iii) Instead of the number of passenger-kilometres, it might be better to aim at getting a figure of expenditure per head on inland passenger travel, possibly expressed as a percentage of all consumption per head. (United Kingdom).

(iv) The use of air passenger-kilometres is open to question because of the high proportion, in most countries, of non-resident passengers, even if it were possible to segregate flights originating and ending within the boundaries of a given country. (Canada, Japán and others)
(v) In certain under-developed countries, the working people are taking more and more to bicycles. It may be useful to include the number of bicycles per 100,000 of population as an indicator. (India)

95. New Zealand is surprised that the long list of indicators proposed under the heading Transportation does not include a section relating to amenities such as telephones and radio receivers. These are thought to be more important than some of the items selected by the Experts.

Clothing

96. Although there would seem to be a fairly general agreement among countries that the Experts rightly abstained from proposing statistical indicators for clothing, in view of the many difficulties involved in international comparison, some of the commentators seem to think that this component is too important to be entirely neglected. India recommends the use of descriptive material, having in mind the possibility of developing statistical indicators at a later stage. In this connexion, Guatemala recalls that certain questions concerning clothing and footwear were included in its recent population census. These were meant to provide a kind of measure of the extent to which the need of clothing was met within different socio-economic groups of this country. China suggests, as partial data, the following indicators for clothing: (a) average quantity of clothing used per person per year, and (b) average value of clothing used per person per year. It is thought that data of this type might be compared within climatic regions.

Housing

97. Several countries emphasize the importance of housing conditions as a component of levels of living. Until this component can be measured, it is said by the United States, any measurement of levels of living will be incomplete, in both the material and the non-material aspects. Changes in housing conditions are thought to be likely to provide a very important measure of changes which occur in the general level of living. Consequently, the omission of indicators dealing with housing is found unsatisfactory.

98. The Experts were of the opinion that nationally compiled data should be thoroughly analyzed and that suitable concepts and definitions for housing statistics should be worked out, before it would be possible to develop statistical
indicators relating to housing (cf. paragraphs 189-192 of the report). This is found to be true for example by India, and the difficulties involved in comparisons over the whole international field are also recognized. Nevertheless, some commentators point out that quantitative facts about housing can be secured much more easily and trustworthy than can data on most other phases of levels of living. The United Kingdom points out that for comparison between countries in the same region, housing data would be less difficult to use than some of the components which are in the Experts' list. The United States thinks it ought to be relatively easy to derive data for each area concerning structural characteristics and physical conditions of the dwellings, intensity of use, and availability of household facilities. Such measures would quickly reveal problem areas characterized by frequent occurrence of unfavourable conditions as, for example, overcrowding, lack of proper cooking facilities, inadequate provisions for privacy, lack of nets or screens against insects, lack of clean water and of sanitary facilities for the disposal of waste, high density of population on the land and absence of open spaces for recreational activities, etc.

99. China suggests the following tentative list of indicators for housing: (a) average indoor area (two-dimensional) per person; (b) average indoor space (three-dimensional) per person; (c) average outdoor area of garden or courtyard per person; (d) ration between the annual rate of growth of housing and the annual population growth; (e) average percentage of family income spent on rent.

Recreation and entertainment

100. Only India has made any observations concerning the chapter on recreation and entertainment, stating briefly that the forms of recreation prevalent in different countries are so different as to make it impossible to find a common basis for an evaluation of this component.

Social security

101. Several countries have emphasized the importance of social security as a component of levels of living. The United States agrees with the Experts that special international studies of a comparative character, such as those initiated by the International Labour Office, should be pursued. These studies should be based on a broad concept of social security and include social insurance, family allowances and related services. As an extension of the social security component
or as a separate component, the collection of descriptive and statistical data on specific social services, relating for example to child welfare, is recommended. China suggests that available statistics of industrial accidents and occupational diseases be used as partial data for an international study of certain aspects of social security.

Human freedoms (and other non-material aspects of living)

102. Only few countries have commented upon the Experts' statements concerning the importance of various non-material components of levels of living (cf. paragraph 121 of the report). This certainly does not mean that all the others find themselves in disagreement with the Experts on this point. Some of the for example Canada, express the opinion that these components however important are unable of statistical measurement. Speaking of human freedoms, in particular, Argentina and Austria remark that these rest on subjective conceptions and do not lend themselves to an evaluation in quantitative terms. The United States, on the other hand, considers it to be both important and possible to develop measurements of certain non-material components. As examples of possible indicators, the following items are mentioned: the availability and use of certain public and private services, including co-operatives and other self-help or self-created projects, voluntary participation in organizations for social and political advancement, free exercise of the franchise and right of assembly and of free expression of opinion. India similarly recalls that the possession of rights, with facilities for their implementation under the law, forms an important part of the non-material aspect of living. The possibility of measuring the actual application of various clauses of the Universal Declaration of Human Rights should therefore be explored. Available data on trade union membership among industrial workers are thought to provide a measure of freedom in this sector. Franchise, inheritance, status in marriage (divorce and separation) and employment are mentioned as items of interest in this connexion, particularly from the point of the equality between sexes.
Priority of indicators

103. The following items were listed by the Experts under the heading "Priority indicators":

1. Expectation of life at birth;
2. Infant mortality rate;
3. National average food supplies in terms of calories at the "retail level" compared with estimated calorie requirements;
4. Percentage of children 5-14 years of age attending or enrolled in schools;
5. Percentage of population literate, above some appropriate age, total and by sex;
6. Proportion of economically active population unemployed;
7. Percentage distribution of economically active population by principal industrial and occupational categories;
8. "Personal consumption" as a proportion of national income and index of changes therein;
9. Macro-economic items related to national income, namely:
   (i) Percentage of the national income spent on the basic needs of life, namely, food, clothing, shelter and fuel;
   (ii) Percentage of national income saved;
   (iii) Cultivated area per 100,000 population;
   (iv) Productivity per hectare of main crops;
   (v) Output of food in calories per person occupied in agriculture;
   (vi) Output of electric power per 100,000 of population;
   (vii) Output plus import of steel per 100,000 of population;
   (viii) Output plus import of coal per 100,000 of population;
10. The ratio of the index of change in national income (in constant prices) to the index of change in population;
11. Average expectation of life (at birth and) at various ages.

104. Some countries, for example Argentin, Portugal, Egypt, Finland and Sweden, express approval of the Experts' priority list as it stands or only with minor modifications. Thus, Argentina would like to add the number of students in vocational, secondary and higher educational institutions per 100,000 inhabitants.
and the number of participants in social security schemes in relation to the total population. Egypt recommends that, within the list, first priority be given the indicators dealing with national income and consumer expenditures. Sweden suggests that index numbers expressing national average food supplies at constant prices might be considered as an alternative or a supplement to priority indicator (3).

105. Other countries, referring to their criticism of individual indicators, seem to be in favour of a more or less thorough revision of the priority list. The United Kingdom and New Zealand doubt the value of (6), (7) and (8) as priority indicators. Under the caption Health, the United Kingdom would give priority to infant mortality and a new indicator showing the proportion of deaths under forty-five years of age (cf. paragraph 45 above). It is further suggested that (3) - food supplies in terms of calories - be maintained only if the objections earlier described (cf. paragraphs 53-55 above) can be overcome. The United Kingdom also would exclude (4) - the literacy rate - and would retain (5) - children enrolled in schools - provided the age range were made to conform with the "school age" as defined in each territory. In regard to (9), the index of personal consumption per capita is thought to be more worthy of priority than the Experts' suggestion of personal consumption as a proportion of national income.

106. The Union of South Africa considers that the level of living of a population should be assessed primarily in terms of: (a) the nutritional position, which should include measurements of the quantity and quality of food consumed in the various significant population groupings within a nation; (b) the health position, under which might be included items such as trends in the general death rate, tuberculosis and infant mortality rates and life expectancy; (c) economic aspects, such as items (6), (7) and (8) of the Experts' priority list, which are particularly important because mal- or under-nourishment follows very often, not from deficient food supplies, but from lack of money with which to buy food; (d) literacy and cultural factors.

107. It is pointed out by the Netherlands that the Experts have neglected to declare on what principles they based themselves when selecting the priority item. The same country suggests two practical criteria, namely (a) unambiguity of interpretation, and (b) availability of statistical data in a fairly large number of countries. It is being admitted that his would not necessarily result in the selection of the most important items.
106. Considering the list of priority indicators from the points of view just referred to, and recapitulating the observations made by countries in regard to the validity and comparability of available statistics, the following remarks would seem to be justified:

(a) Priority indicators (1) and (11) can easily be combined, as life tables are the source of both. Life expectancy at one year of age, used in connexion with data relating to infant mortality, is preferable to life expectancy at birth (cf. paragraph 44 above). Life tables have been computed for all advanced countries, and also for some of the less developed countries, and are expected to become available for several more of the latter ones within not too distant a future. In the least developed territories, data of this type are usually not available.

(b) The infant mortality rate is generally thought of as one of the best indicators of levels of living (cf., however, certain reservations reported in paragraph 47 above). In spite of lack of information for the least developed territories, and under-reporting elsewhere, it is also one of the most commonly available. There is no question about its fitness as a priority indicator.

(c) Priority indicator (3) - food supplies in terms of calories compared with estimate calorie requirements - is viewed by some commentators with much skepticism because of the inadequacy of available statistics, particularly in countries where subsistence production is important. Otherwise there would seem to be little doubt that this indicator deserves priority. One commentator attaches an equal importance to food supplies in terms of proteins, pointing out that this factor is of particular interest when studying nutritional levels among rice-eating peoples.

(d) School attendance is generally found to be one of the most important items in the list, although there is some disagreement among commentators as to what age group should be considered for purposes of comparison. Because priority indicator (4), as it stands, refers to children under fifteen years of age, it would include mainly pupils in primary schools. It is being suggested that equal attention be paid to secondary, technical and higher education. This might be achieved by inserting in the priority list
a new indicator, as proposed in one of the answers, namely the proportion of young people fifteen to twenty-four years of age attending educational institutions of any kind (cf. paragraph 60). Statistics on the number of pupils in educational institutions are available for most countries. However, for their interpretation it is important to keep in mind that they refer to enrolment and not to attendance proper.

(e) Priority indicator (5), relating to literacy, seems to be of little relevance to advanced countries (cf. paragraph 63). One of these suggests that it be removed from the priority list. Others propose that it be supplemented by the new indicator formulated by UNESCO, giving the median number of years of formal schooling completed by persons over twenty-five years of age, possibly with some modification of the age group which is to be considered (cf. paragraph 65). With or without this addition, it would seem appropriate to maintain the literacy rate as a priority indicator, in view of the great importance attached thereto by all less developed countries. Many of these possess the pertinent statistical information, which is derived from population censuses or sample surveys.

(f) Priority indicator (6) - proportion of economically active population unemployed - is regarded by many countries as unsuitable for purposes of international comparison. In the nature of things unemployment is not a clearly identifiable status as soon as one moves outside the group of wage-earners and salaried employees in organized sectors of the economy. Similar remarks apply to the concept "economically active". Consequently, unemployment figures relating to the total economically active population are highly affected by conceptions and practices obtaining in each country, and international comparison of these figures is subject to many pitfalls. To exclude indicator (6) from the priority list, as proposed by several commentators, would not mean that the importance of comparative studies of the employment situation among given socio-economic groups is being overlooked, nor that the desirability of developing adequate statistical measures for this purpose is being denied (cf. paragraphs 69 and 75 above).

(g) It would seem questionable whether priority indicator (7) - percentage distribution of economically active population by principal industrial and occupational categories - can really be considered as a measure of levels of
living. This "indicator" seems rather to belong to the background information which is needed for the interpretation of other indicators. For such purposes it can scarcely be dispensed with. From a statistical point of view, it is to some degree subject to the same weaknesses as those pointed out above in regard to indicator (6) in sub-paragraph (f) above. For example, the percentage of economically active in agricultural occupations, as computed on the basis of census data, is undoubtedly affected by the extent to which unpaid family workers are being counted as economically active. It is important to know about different practices in such respects, so that these can be taken into account when using the figures, but otherwise the information conveyed by indicator (7) would seem to be sufficient at least for general survey purposes. Statistics derived from recent population censuses are, or will shortly be, available for a great number of countries.

(h) As reported in paragraph 89 above, "personal consumption" as a proportion of national income and index of changes therein, listed by the Experts as priority indicator (8), is considered by most commentators as not being a good indicator at all because bearing a closer relation to the structure of the economy than to levels of living. The replacement of this indicator by the rate of change of "personal consumption" per capita in terms of constant prices (i.e. indicator (c) under the heading Aggregate consumption and savings, as reformulated) would probably meet with general approval. Food as a proportion of total "personal consumption" has been proposed as a valuable addition to the list (cf. paragraph 87). Estimates of these indicators are available only in countries which have been able to establish detailed national accounts and are moreover subject to all reservations which apply to such accounts, particularly in countries whose economy includes a large non-monetary sector.

(i) Practically no comments at all have been presented in regard to the "macro-economic" indicators which were included by the Experts in their priority list. This might be due to the fact that these indicators, excepting number one in the series, undoubtedly seem somewhat far-fetched as measures of levels of living. Apparently they were thought of by the Experts as providing some useful background information relating to certain selected aspects of the economic structure of countries.
(j) Priority indicator (10) - the ratio of the index of change in national income (in constant prices) to the index of change in population - or, more simply, the rate of change of national income per capita in constant prices, has been commented upon favourably by several countries as an indicator of economic progress (cf. paragraph 85). From a statistical point of view, this indicator is naturally subject to the same limitations as those mentioned above in regard to "personal consumption" per capita (cf. sub-paragraph (h) above).

(k) Cf. sub-paragraph (a) in regard to the use of life tables, which were listed by the Experts as priority indicator (11).
IV. The promotion of national statistics

109. Both the general comments reported in section II of this summary and the specific observations regarding various indicators reported in section III, bear witness that opinions differ widely as to the precise implications of the Experts' recommendations for international measurement of levels of living. Whereas only one country (Australia) rejects the whole idea as involving, at least for the present, intractable problems, most of the others express reservations in regard to the scope and content of international comparisons that would be meaningful and useful. There would seem to exist a rather wide-spread consensus among the commentators that the scheme proposed by the Experts needs to be thoroughly revised before it can serve as a logical frame for such comparisons.

110. On the other hand, most countries seem to agree with the Experts that every effort should be made to expand and improve the basic statistical material which is needed for precise and detailed studies of conditions of life and work all over the world. Particular importance is laid to family living studies, which are said to be of immediate value in describing present conditions and therefore directly related to improvement policies in countries where technical assistance programmes are being carried on. The need for better methods and techniques in studying the employment situation in various countries, particularly with regard to existing under-employment, is also emphasized. Consequently, the general recommendations formulated by the Experts in regard to the activities of the United Nations and the specialized agencies in the field of social and economic statistics (cf. paragraph 229, sub-paragraphs (1)-(13), and paragraph 217 of the Experts' Report) would seem to meet with practically unanimous approval.

111. Some countries have included in their answers detailed information concerning the statistics they have available pertaining to the indicators set forth by the Experts in their tentative list. Statistically advanced countries seem to be in a position to provide practically all the data which are required. Some of the less developed countries would seem to be able to furnish at least approximate information concerning most of the indicators, but, in many cases, it is admitted that the available data are more or less inadequate. If studies of levels of living were to be pursued with a view to picturing differences relating to various socio-economic groups, there is little doubt that also many of the advanced countries would experience considerable difficulties in providing the necessary statistical material.
112. Whether Governments ought to attach highest priority to statistical work which is aimed at measurements of levels of living, and, in particular, whether the Experts' scheme of components and indicators can be taken as a guide in this work, is subject to quite different judgements on the part of different countries. Whereas the United States, in a statement already cited (cf. paragraph 11 above), commends the Experts for having outlined such priorities, Australia - while convinced that more and better statistics are needed in the social and economic field - considers that Governments should not attach highest priority in their statistical work to the broad but imprecise subject of levels of living.

113. This is possibly a more or less academic question at present. Turkey points out that the elements that are of primary importance in the development of national statistical systems are the following:

(1) Requests for statistical data by those who will make use of them, i.e. government and parliament, professional and scientific organizations, universities and interested undertakings and individuals;
(2) Financial resources;
(3) Qualified statistical personnel;
(4) Accurate and honest replies on the part of undertakings and individuals furnishing data, reflecting an understanding of the need for and the importance of the work and confidence in the State.

114. As witness by the commentator quoted above, as well as others, conditions are far from ideal in these respects in many countries. Australia suggests that the most urgent need at present is for under-developed countries to be encouraged to collect and publish data relating to levels of living similar to those which are available in more advanced countries otherwise the former would have to be excluded for a long time to come from most of the comparisons described in the Experts' Report.

115. The United States, discussing the long-range implications of international reporting on levels of living, assumes that personnel of many professional backgrounds would have to orient themselves or to be specifically trained in countries which undertake to provide periodic reports to the United Nations concerning levels of living within their countries. Canada, referring to the Experts' conclusion that a satisfactory analysis of levels of living can be
achieved only after considerable progress has been made in developing the requisite data, thinks that it would be sufficient at this time to suggest fields of development which might receive priority.

116. The United Kingdom and India concur in stating that the immediate need is not so much for international comparison as for the construction and improvement of measures of changes in levels of living over a period of time in individual countries and territories. In the course of development of these measures, according to the United Kingdom, special attention could be given to those few indicators which are capable of international comparison and from which a system of internationally comparable indicators could eventually be developed.
**ANNEX**

List of countries from which comments were received

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Ninth session
STATISTICAL COMMISSION
Item 16 (a) of the provisional agenda

COMMENTS OF THE INTERNATIONAL LABOUR OFFICE ON THE
REPORT ON INTERNATIONAL DEFINITION AND MEASUREMENT
OF STANDARDS AND LEVELS OF LIVING

(Memorandum prepared by the International Labour Office)

1. The International Labour Office has reviewed with interest and gratification
the report on "International Definition and Measurement of Standards and Levels
of Living" prepared by the Committee of Experts convened by the United Nations,
the ILO and United Nations Educational, Scientific and Cultural Organization in
collaboration with the Food and Agriculture Organization and the World Health
Organization.

2. In the view of the ILO this report represents an important step forward
in the utilization of diverse statistical materials for the specific purpose of
level of living measurement, and permits a clear appreciation of the many
difficulties involved.

3. We note with satisfaction that the Committee has accepted and emphasized
an earlier ILO distinction between "levels of living", "standards of living"
and "norms of living". We consider that the Committee has properly construed
its assignment to be primarily concerned with the definition and measurement
of "levels of living". As pointed out by the Committee, however, the content
of the level of living can hardly be defined, nor changes or differences in
the level of living evaluated, without reference to a previously established
set of values described as "standards" or "norms". Certain elements of living
conditions, to be sure, such as life expectancy, literacy, access to medical,
educational and transportation services, etc. represent almost universally
accepted values or "standards".

* Document E/CN.3/213, which will contain the views of governments on the
Report on International Definition and Measurement of Standards and
Levels of Living, will be issued in early 1956.

55-31070
4. The Committee gave considerable attention to the possibility of developing a comprehensive measurement of the level of living through the use of a single unified or synthetic index of the level of living but arrived at the conclusion that such a measure could not be developed without considerable further research. The ILO concurs in this view, and considers the so-called "component approach", which permits a classification of the various elements of living conditions and the development of partial measurements of the level of living, as a promising alternative.

5. The ILO considers the list of components adopted by the Committee as comprehensive and reasonably satisfactory. Attempts to develop a superior list reveal immediately the great difficulties involved, and disclose a wide variety of views among those who undertake such task. It is apparent, however, that the selection of components and the order in which they are arranged were influenced by the consideration of availability of data, with some sacrifice of logic and consistency. The various components are not of co-ordinate importance, and there is a certain amount of overlapping among them. Thus the sixth component, "aggregate consumption and savings", is generally susceptible of expression in monetary or other economic terms, while such components as "health", "education" and "human freedoms" are not. Generally speaking, the other components can be evaluated in economic terms only by overlapping with aggregate consumption and savings. The ILO Working Group on Family Living Studies helped to clarify the relationship of the components to each other by dealing with consumption and savings as representative of the resources of households, to the extent that they are susceptible of expression in economic terms, and with the other components as relating to the utilization of these resources and to other characteristics of family living.

6. We have reviewed the proposed indicators primarily with respect to the fields which come within the ILO's immediate competence, namely conditions of work, employment situation and social security. We are aware of the thoughtful care which went into the selection of indicators and feel that a good beginning has been made; nevertheless, we feel that better indicators can soon be developed. Due perhaps to the heavy weight given to the question
of availability, important areas are left uncovered; e.g. non-industrial wages and social benefits (other than holidays) related to employment. Some of the indicators might well be more specific with respect to the economic sector covered; e.g. does hours of work per week refer to legal minimum hours, scheduled hours, or actual hours, and does it apply to all employment or only industrial? In another paper the ILO is commenting more fully on certain practical difficulties to be encountered in obtaining the data called for.

7. Further study will be needed in order to reveal the inter-relationship between the various indicators considered and to establish a final list of priority indicators. It would seem advisable to compare the changes and differences shown by a considerably larger number of indicators with reference to each component. We believe, moreover, that it may be possible to devise usable indicators for one or more of the components, housing, clothing, recreation and entertainment, social security and human freedoms, with regard to which the Committee was not in position to make a selection of indicators. The results of continuing study may reveal the necessity of adopting different sets of indicators for the determination of changes over time on the one hand and of differences from area to area at a given date on the other. We note that most of the indicators proposed by the Committee have reference to the entire population of the countries. There are only a limited number of indicators which permit the evaluation of differential information with regard to specific groups of the population.

8. In view of the considerable difficulties which exist in developing international comparisons of levels of living, owing to differences in value assessments by various peoples as well as to differences in statistical definitions and classifications, we consider that particular emphasis should be given for the time being to the study of rates of change, to differences between various sectors of the population within national boundaries, and to regional comparisons among countries with somewhat similar social and economic characteristics. It is hardly likely that interest in broad international comparisons alone will induce many countries to make available the necessary funds and personnel to establish or improve critical statistical series. Every
effort must be made, however, to attain international comparability in statistics developed primarily for national purposes.

9. We note with satisfaction the Committee's recommendations with respect to further work by the United Nations and the specialized agencies and are prepared to press forward in a number of areas within this agency's competence. Following the recommendations of the Seventh International Conference of Labour Statisticians, and in line with the recommendations of the "Levels of Living Committee", a Working Group of Experts on Family Living Studies was recently convened by the Director-General of the ILO to consider the objectives, scope and methods of such studies. The Working Group gave considerable attention to the usefulness of family living studies for the appreciation of levels of living in connexion with programmes of national development, and supported the view of the Committee of Experts that family living studies are a useful instrument for this purpose.
MEASUREMENT OF THE EDUCATIONAL COMPONENT IN RELATION TO COMPARATIVE LEVELS OF LIVING

(Memorandum prepared by the Statistical Division of United Nations Educational, Scientific and Cultural Organization)

1. The Committee of Experts recommended a list of eight indicators for the component "Education, including literacy and skills". The UNESCO secretariat has suggested a revised list of six indicators, as follows:
   (a) Proportion of children 5-14 years of age attending or enrolled in schools;
   (b) Pupils per teacher in primary schools;
   (c) Percentage of population literate, 15 years of age and over, total and by sex;
   (d) Median number of years of formal schooling completed by population 25 years old and over, total and by sex;
   (e) Daily newspaper circulation per 1,000 population;
   (f) Books (titles) published per year per 100,000 inhabitants.

2. From the summary of comments by governments on the Experts' report, it appears that most of these indicators have been found acceptable by the countries, some of which have suggested various modifications of the list or of specific indicators.

3. In regard to indicator (a) Proportion of children 5-14 years of age attending or enrolled in schools, it is important to bear in mind that "School-age population" is not easily definable, either according to a country's legal

1/ Document E/CN.3/213, which will contain the views of governments on the Report on International Definition and Measurement of Standards and Levels of Living, will be issued early in 1956.

55-31270
requirements or its current practices. Even if it were not so, a population base
which varies from country to country and from time to time cannot serve as a
useful yardstick for measuring the level or progress of educational development.
It is preferable to adopt an arbitrary age span, such as 5-14 years, 6-12 years,
or 7-15 years, which could be used as the denominator of a school attendance or
enrolment ratio. For practical reasons we believe in adopting the age span of
5-14 years inclusive, since current population estimates are more widely
available in five-year age groups, 5-9, 10-14, etc.
4. It is recognized that school attendance and school enrolment data are not
the same, particularly in countries where compulsory education does not exist or
is not fully enforced. It would be preferable to have statistics on number of
pupils in average daily attendance. However, in the absence of such data for
most countries, we have to use enrolment figures (whether reported as gross, net
or average enrolment) in lieu of attendance figures. Eventually it may be
possible to reach some international agreement on the adoption of certain uniform
concepts and methods of pupil accounting, which would improve the comparability
of statistics relating both to enrolment and to attendance.
5. This indicator, as it stands, requires the tabulation of enrolment data by
age, which is not currently available for many countries. As a compromise,
therefore, we have to take the total enrolment relating to all types of schools
(primary, secondary, vocational, etc.) below the level of higher education, as the
numerator of the desired ratio. Since the age span of pupils in these schools is
generally longer than the 10-year interval between 5 and 15 years of age, the
resulting ratio can take on values above unity, or 100 per cent. This happens,
however, only in the case of countries with well-developed school systems, and
creates no serious problems in inter-temporal comparisons within the countries.
For inter-country comparisons, it would always be necessary to take into
consideration the structure of the school system in each country - the duration
of each level of education, the ages of admission and of school-leaving, and the
integration or mutual relationship between the various types of schools. In order
to improve the comparability of such enrolment ratios, it is recommended that, as
far as possible, pre-school enrolment (kindergartens, nursery schools, etc.) should
be excluded, as well as enrolment of pupils in part-time courses, evening
classes, etc.
6. A useful extension of this measure would be to separate the total enrolment into two parts, relating respectively to primary and post-primary schools (below the university or college level). Thus it would be possible to obtain, from the same set of enrolment and population data:

(a) the total enrolment ratio - referring to full-time enrolment in all schools below the higher education level;
(b) the primary enrolment ratio - referring only to the enrolment in primary schools;
(c) the percentage of post-primary enrolment in total enrolment - the former referring only to enrolment above the primary school, and the latter to all enrolment, below the level of higher education.

7. If it is desired to take into account the development of higher education (including universities and post-secondary technical schools), it would be necessary to construct a separate ratio between total enrolment in higher education and the total population of the country. Since the age-span of university students can hardly be delimited, it would be difficult, and indeed unnecessary, to adopt a population base other than the total population.

8. In regard to the indicator: "pupils per teacher in primary schools" it is recognized that such an average figure does in fact conceal wide differences within a country, especially between rural and urban areas. It would be desirable to have this indicator separately for rural and urban schools, provided some agreement can be reached as to the definition of rural and urban areas. The inclusion of other than primary schools would only bring in further complications due to the larger number of part-time teachers involved (especially in vocational subjects, art, music, etc.).

9. As to the indicator: "literacy of the population, 15 years old and over", it is recognized that there is not yet general agreement on the definition of literacy, particularly in view of the emphasis which educators place on "functional literacy" beyond the minimum level usually envisaged in census statistics. However, there is sufficient agreement, on the basis of current international recommendations, to provide both inter-temporal and inter-country
comparisons on this question, at least among those countries where a substantial portion of the population are still illiterate. For the other countries, a more appropriate measure is found in the next indicator proposed by the UNESCO secretariat, namely "median number of years of formal schooling completed by population 25 years old and over".

10. The latter proposal is an attempt to put in precise form a measure of the average educational level reached by the adult population beyond the age at which formal education is usually completed. It would thus not be feasible to lower the age level below, say, 20 years of age. Neither would there be justification, in the long run, to introduce an upper age limit to the population considered. Differences in the age structure of populations would admittedly affect this average measure, as it would other average measures relating to the over-all population.

11. Difficulties of another order are involved in the notion of a quantitative evaluation of the educational level - in terms of number of years of formal schooling completed. On the one hand, a statement on the highest type or level of education completed - or the highest certificate or diploma received - would be inadequate to distinguish between those who have partially completed and those who have not received at all a certain type or level of education. For example, a person having completed secondary school and two years of university education would be classed in the same group with those who have not gone beyond the completion of secondary school. On the other hand, merely counting the number of years one has spent in going to school - without considering the highest level eventually completed - may give an incorrect status to those persons who have received their education at an accelerated or retarded pace. Thus a person having attended school for 12 years, for example, may have completed the equivalent of 13 or 14 years at the normal rate of progress, or may have only reached the level of completing the tenth year of the regular school system.

12. In order to develop a useful measure of the average level of education reached by a population, it is recommended that the level be expressed in terms of the number of years which a person would have spent in reaching the specified level,
without being accelerated or retarded as the case may be. It is also recommended that all types of non-formal education, such as literacy courses, adult education classes, etc., which cannot be evaluated in terms of normal progression in the regular school system, be excluded from consideration.

13. With regard to the last two proposed indicators - newspaper circulation and book production - it must be admitted that they are, at best, applicable only to countries with a highly literate population. Even so, the circulation of newspapers would have to include others than dailies. For practical reasons, it would be difficult to include the circulation of periodicals other than general purpose newspapers, or to take into account the size and contents of newspapers.

14. The number of books (titles) published can indeed vary a great deal according to the prevailing language or languages of a country and other conditions of the publishing trade. Ideally, the number of copies of books sold in a country (whether produced within the country or imported) would be a more appropriate measure, but statistics are sadly lacking in this respect. Perhaps a reasonable substitute could be found in the total number of books circulated through the public libraries, provided statistics on this subject can be more fully developed in all countries.

15. Under normal conditions, the per capita consumption of newsprint and other printing paper might be considered as an appropriate substitute for both of the above indicators. But conditions as to the availability of newsprint and other printing paper in many countries are far from normal; hence this measure is not suitable, at least for the time being.

16. Perhaps under the topic of recreation and entertainment, but certainly related to the educational and cultural level of a population, are such questions as the availability and utilization of facilities in the field of cultural activities (other than books and newspapers). Such measures as the number of cinema seats, theatre performances, radio sets, etc., and the frequentation of museums, art galleries, etc. could be developed eventually, taking into consideration the patterns of living in different countries and the gradual extension of modern forms of recreation and entertainment.
17. An important measure of the development of education and culture in a country is relevant to the suggestions of the Committee regarding certain macro-economic data related to national income. A preliminary study by the secretariat of UNESCO has shown the feasibility of deriving a measure based on the total public expenditure of a country devoted to education, expressed as a percentage of the national income. Further studies are planned to extend this concept to include household and other private expenditures for educational and cultural purposes. It is hoped thus to arrive at a quantitative measure, in monetary terms, of the total national effort directed toward educational and cultural improvement. By relating this measure to national income, it would be possible to overcome the difficulties of comparison due to exchange rates and purchasing power parities. However, much depends on the prospects of improvement in national income estimates as well as in obtaining global estimates of educational and cultural expenditures.

18. In the light of the Committee report, the comments from various countries, and the above observations, we would suggest the following list of priority and supplementary indicators in respect of the educational and cultural aspects of living:

I. Priority indicators
   (a) Ratio of total enrolment in all schools below the level of higher education to the population 5-14 years of age;
   (b) Percentage of population literate, 15 years old and over, total and by sex; or alternatively;
   (c) Median number of years of formal schooling completed by population 25 years old and over, total and by sex.

II. Supplementary indicators
   (d) Pupils per teacher in primary schools, total and by urban-rural classification;
   (e) Ratio of total enrolment in all primary schools to the population 5-14 years of age;
   (f) Percentage of post-primary enrolment in total enrolment below the level of higher education;
   (g) Total enrolment in institutions of higher education per 100,000 inhabitants;
(h) Circulation of general purpose newspapers (daily and other) per 1,000 inhabitants;
(i) Circulation of books through public libraries per 1,000 inhabitants;
(j) Total public expenditure on education as per cent of national income.

19. It is our hope that the continuing work of the UNESCO secretariat, with the cooperation of governments, towards improvement of educational and cultural statistics will have as one of its results the possibility of contributing to the eventual success of the international efforts to define and to measure the levels of living and their changes among all countries.
NOTE ON THE NUTRITIONAL COMPONENT IN INTERNATIONAL MEASUREMENTS OF LEVELS OF LIVING

(Note prepared by the Food and Agricultural Organization)

1. The compilation of accurate food balance sheets is in general a difficult task. Nevertheless, the margin of error in the calorie figures obtained from food balance sheets is not likely to be appreciably greater than the errors affecting figures that are currently available for assessing many of the other components proposed by the Committee of Experts. Indeed, in the case of statistically advanced countries, the calorie level ascertained from food balance sheets is usually a fairly reliable figure. For less developed countries only a few such sheets have been compiled. They certainly need much more work before they can be considered acceptable.

2. Calorie levels in relation to estimated calorie requirements should be regarded as only one type of priority indicator relating to food and nutrition. Taken alone, this indicator is certainly inadequate because it does not reflect the nutritional quality of the diet. Supplementary information is, therefore, needed concerning the level of total protein as well as animal protein since most protein-rich foods, especially those of animal origin, are also comparatively good sources of many vitamins and minerals. Higher priority has not been suggested hitherto in regard to indicators involving total protein or animal protein because satisfactory standards for protein requirements have been lacking. However, the Report of the FAO Committee on Protein Requirements, which is being prepared for publication in 1956, is expected to make it possible to establish those requirements and to estimate the quantities of various foods.

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necessary to cover them. It would then be possible to develop "protein levels compared with protein requirements" as a priority indicator of greater significance in assessing the component "food and nutrition".

3. National average levels of calorie and protein supplies, although presenting a great deal of interest both for inter-country comparisons and comparisons over time, are often inadequate as a basis for policies. In order to be really useful for practical purposes, such indicators should refer to specific regional, occupational and income groups within countries. It is hoped that the availability of such figures will be considerably advanced through household studies of levels of living. Such studies would also make possible nutritional analysis of the diets actually consumed by different groups of the population.
1. This Study Group was convened by the World Health Organization in Geneva from 24 to 28 October 1955 in pursuance of the ECOSOC Resolution Nos. 585(XX)B and 585(XX)F inviting specialized agencies to collaborate with the United Nations in the work of international definition and measurement of standards and levels of living. The report prepared on this subject by the United Nations Experts on "International Definition and Measurement of Standards and Levels of Living", together with the comments of the Statistical Commission and the Social Commission, as well as the views of the WHO Expert Committee on Health Statistics and the ILO Group of Experts on Family Living Studies (a meeting held in Geneva in September 1955 in which WHO participated), were before this Study Group. A WHO consultant had earlier prepared a preliminary study entitled "Levels of Living - the Health Component" which had been circulated to members of the WHO Expert Panels on Health Statistics and on Public Health Administration. The comments of the Panel Members were also available to the Study Group.

2. The Study Group reviewed broadly the experience and knowledge on the various indices and measures for assessment of health and discussed the broad concept of health and factors affecting health including basic elements of health. The Group felt that the WHO definition of health, which embraces the concepts of physical, mental and social well-being, does not lend itself easily to objective measurement. Nevertheless, the use of available national
statistical data for the purpose of developing indicators of health, as well as the need for additional statistical information for developing more and better indicators, was recognized. According to this Study Group health indicators might be classified into three groups:

(a) Those associated with health status of persons and populations belonging to a given area (vital statistics, nutrition, etc.);

(b) Those related to physical environmental conditions having a more or less direct bearing on the health status of the area under review; and

(c) Those concerned with health services and activities directed to the improvement of health conditions (availability and use of hospitals, physicians and other health personnel).

5. A second way of classifying health indicators was from the point of view of the unit of reference. The enquiry may, for example, be directed to a single individual (which is the basic example of what may be called the micro-approach); or to a family, a household, or a community or different occupational, social or economic categories belonging to given areas or regions; and to the population of a country as a whole which would be the macro-approach.

4. The Group noted that most of the indicators in current use were of the macro type. It would also be of great value if health enquiries could be made and appropriate indicators constructed which would have reference to individual persons, or households or communities, that is, at different levels of a micro type. The method of sample surveys was considered particularly suitable for such enquiries.

5. On the basis of available statistics the Group examined the usefulness of designing two types of health indicators, namely comprehensive and specific. The Group agreed in principle that comprehensive indicators would be of great value both for international comparison and for assessment of changes from time to time within the given area, supplemented by appropriate specific indicators of various types and levels of aggregation. On the available evidence it was found impracticable to recommend categorically any particular comprehensive indicator but the Study Group felt that a "proportional mortality indicator" which
had been suggested (defined as: the number of deaths over 50 years as a percentage of total deaths) looked promising. Further critical studies on the validity and range of applicability of the proportional mortality indicator would have to be carried out before it could be definitely accepted as a comprehensive indicator. The Group also felt that the "expectation of life" has a comprehensive character as an indicator and also recommended, notwithstanding certain limitations, the use of the crude death rate per 1000 population as an indicator in the same category. As specific indicators, that is, when an enquiry is directed to a single aspect or a particular factor of interest, the Group suggested the use of "infant mortality rate" and of the "deaths per 1000 population from communicable diseases".

6. Further, in respect of health services and activities, the Group felt that, with the existing information, it was difficult to design indicators for worldwide application. Nevertheless, it would be useful, especially in the less-developed countries, to have information on the number of physicians and other health personnel with their geographical distribution. In collecting such information it would be desirable to specify the nature of the technical training and qualifications of the personnel. The Group also noted that it was not only the number and geographical distribution which were important, but also the extent to which their services were actually used.

7. Also, information on the number of hospital beds and such facilities, their geographical distribution and the extent to which these facilities are being used, was considered of special value in less developed areas. The Group realized, however, that the numerical data on physicians and hospital beds had only a potential significance as regards "treatments" given to the population.

8. The Group further suggested that the search for new indicators might profitably be pursued in such fields as morbidity, nutrition, mental health, environmental sanitation, health services and socio-economic conditions. In stressing the point that the search for new indicators, direct and indirect, should be strenuously pursued, the Group felt it desirable to outline at some
length methods of doing so, especially by means of sample surveys emphasising
the importance of the household as the unit for investigation. The Group
took note of the fact that WHO has already initiated local health studies,
in which one of the objectives is to study the measurement of health and factors
affecting community, family and individual health.

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OBSERVATIONS MADE BY A STUDY GROUP ON MEASUREMENT OF LEVELS OF HEALTH, IN CONNEXION WITH INTERNATIONAL DEFINITION AND MEASUREMENT OF STANDARDS AND LEVELS OF LIVING

CORRIGENDUM

The sub-title should read as follows:

(Summary account prepared by the World Health Organization)