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STATISTICS OF INCOME DISTRIBUTION

(Memorandum prepared by the Secretary-General)

I. Introduction

1. The Statistical Commission at earlier sessions had requested the Secretary-General to study the distribution of income by size among other subjects related to national income. Interest in this subject had also been expressed by the General Assembly in resolution 403(V) of 20 November 1950, which requested the Secretary-General to prepare and submit to the Economic and Social Council a report "on the volume and distribution of national income in under-developed countries". The report prepared in response to this resolution by the Statistical Office, in consultation with the Division of Economic Stability and Development, was considered by the Economic and Social Council at its thirteenth session.^{1/} As a result, the Economic and Social Council requested "that the Secretary-General and the International Monetary Fund, in co-operation with other specialized agencies concerned, continue to give attention to these subjects in the course of regular work on problems of economic development and on the development of adequate and reliable national income statistics and balance of payments statistics, giving particular attention to encouraging the preparation of basic statistical series in both developed and under-developed countries in a manner which would take into account the existing differences in the economic

^{1/} The report was later published as Statistical Papers, Series E, No. 3
(National Income and its Distribution in Under-developed Countries).

and social structures of the countries concerned". At its seventh session, the Commission requested a report on the analysis made by countries of income distribution and the present report is intended to bring the Commission up to date on developments in this area, particularly in respect of the nature of the information currently available and its limitations.

2. In the development of national income statistics up to the present time, interest has centred mainly on the development of national totals built up by industrial origin, by type of income payment, and by category of final expenditure. Relatively little consideration has been given to the question of how the total of income received by individuals or households is distributed by size of income payment or by significant economic classes of the population. At least to a large extent, this choice of emphasis in many countries is the result of the kind of source materials available for this purpose. Where reliance has to be placed principally on agricultural and industrial censuses, study of the distribution of income by size and economic groups may be impossible without developing new sources of information. This is one reason why, even in countries which publish income distribution data, the official national income or accounts publications often fail to cover this aspect of the subject.

3. Attention may also be drawn to the shift in emphasis in the use to which income distribution statistics are put. The principal application of such statistics has been in area of investigations relating to the degree of inequality of income distribution and its changes over time. More recently, however, the increasing interest in the aggregative approach to the analysis of economic problems has led to new applications of income distribution statistics in broad fields of economic analysis. Such statistics, often used in conjunction with related data, are now employed for forecasting changes in the level of demand for various consumers' goods and services, for gauging the effect on total effective demand of changes in monetary and fiscal policies, for the study of sources of saving, for the establishment of social security goals, low-cost public housing programmes, and other social or public welfare measures, for the study of alternative taxation programmes

to raise revenue, and the like. Accordingly, the compilation of statistics of income distribution can be expected to assume increasing importance in national statistical programmes.

II. The distribution of income by size

5. In a number of countries, notably the British Commonwealth countries, information on size-distribution is now included in their national income studies. New Zealand and the United Kingdom show these statistics in their current national accounts publications; Australia, Canada and Ireland have in the past shown statistics of distribution by size of income for selected years (in the case of Canada and Ireland only non-agricultural income was so classified). These statistics are based on income tax returns, but in some cases supplementary data have been used to fill in gaps or to carry out required adjustments. Other countries which utilize taxation sources for the construction of size-distributions but which do not publish the results together with their statistics of national income include Ceylon, Denmark, France, Western Germany, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, the Union of South Africa and the United States.^{2/} Unofficial estimates based largely on this source are also available for certain countries for one or more years, e.g. Brazil and Puerto Rico.

6. A second important source for procuring income distribution statistics is the sample survey. The United States in particular has made extensive use of surveys for this as well as for related purposes (obtaining information on the distribution of liquid asset holdings and savings, expenditures, incomes of particular groups of the population, etc.). For example, the consumer finances surveys carried out on behalf of the Board of Governors of the Federal Reserve System provide comparable data in this area for the years 1945 to the present time. In addition, various sampling studies have been carried out in the past by the Bureau of the Census, the Bureau of Labor

^{2/} The new official series on the size-distribution of personal income published by the United States for the first time at the close of 1953 and based on individual income tax returns and sample field surveys of family income are, however, prepared in the National Income Division of the Department of Commerce and are being integrated into the national income and product accounts issued by this Division. The distribution statistics appear in Income Distribution in the United States by Size, 1944-1950.

Statistics, and other federal agencies which provide information for one or more years on a national or regional basis. Statistical sampling is being employed for this purpose in a number of other countries as well. Examples are the official survey of 1948 carried out by Doxa (a private statistical institute) for the Italian government, the 1952 national survey of personal incomes and savings in the United Kingdom carried out by the Oxford Institute of Statistics, and the annual surveys of income in Finland and Sweden. Other surveys now in progress or being planned also hold out prospects of providing useful statistics of income distribution; thus, the Indian National Sample Survey may well become the basis for obtaining such data on a periodic basis.

7. A third major source of information relating to the distribution of incomes is the population census. Several countries collect data on incomes, as well as on other economic and social characteristics of the population, as a regular part of their censuses of population. This course has been followed in one or more recent censuses in Canada, the Union of South Africa (for Europeans only), Cuba, New Zealand, Sweden, the Philippines and the United States. The economic data are sometimes collected from all households and sometimes from a pre-determined percentage of households. In either case, the opportunities for securing cross-classifications of incomes and other characteristics (occupation, industry, age, size of family, geographical region, etc.) by this method are clearly excellent.

8. Each of the sources described, unfortunately, has certain rather important shortcomings. In the case of taxation statistics, the defects of the data are fairly evident. The incompleteness of tax records owing to the exemption limit, evasion and under-reporting immediately rules out the possibility of dependence on this source exclusively. As a minimum, the lower tail of any distribution based on income tax reports must be filled in from other sources and adjustments must be made for significant under-reporting and evasion. Aside from these difficulties, the concept of income employed as a basis for tax assessment differs in various important respects from the notion of personal income as used in national income accounting. Among the most common differences are the treatment of income in kind, the rental value of owner occupied dwellings, insurance and pension

premiums and benefits, inheritances, gifts, capital gains and losses, miscellaneous forms of non-taxable income, etc. Furthermore, definition of the income unit for tax purposes presents difficulties in using data for other purposes; income tax units may represent neither individuals nor families defined in the economic sense. From the standpoint of analyzing changes in the distribution of income over time, taxation statistics are deficient in yet another respect: the tax laws are subject to change. Without introducing complicated adjustments to overcome modifications in the character of the taxation records resulting from revisions in the tax structure, comparability will frequently not be preserved.

9. The use of sample surveys to obtain statistics of income-size distribution is free of most of these disadvantages. The concepts of income and the income receiving unit can be specified in advance and all income groups including the lowest can be covered. In practice, however, various difficulties arise. In the economically under-developed countries the importance of subsistence activities is a serious obstacle to the collection of comprehensive income data. Not only does the nature of the economic activities carried on outside the market economy but falling within the purview of the income concept have to be carefully defined, but the basis of valuation must be specified. Limited experience in applying statistical sampling techniques in the income field has also to be borne in mind. Comparisons of the income data collected from households by sample surveys in the less well-developed countries with expenditure data and other relevant information suggests a tendency for the income figures to be understated. To avoid distortion due to the partial exclusion of income in kind, a number of surveys have been confined to money incomes only.

10. Statistics of income-size distribution based on population censuses are also free of many of the defects common to statistics based on taxation sources. This method has the advantage of wide coverage and allows the income data to be co-ordinated with other relevant information collected as part of the census. On the other hand, as in the case of sample surveys, it is difficult to ensure the inclusion of the various forms of income in kind

for which values should be imputed; indeed, this problem is magnified since it is difficult to exercise the same careful controls over the quality of the data collected as may be done in a sample survey. There may be reluctance to give the required information, or there may be bias in the replies. Finally, the relatively high costs involved and the fact that information can be collected by this means only at infrequent intervals are disadvantages.

11. The difficulties in the way of obtaining reliable data for the study of the distribution of income by size in individual countries are multiplied when attention is directed to comparisons among countries. Despite the intense interest in international comparisons of the degree of inequality in the distribution of income, the direction and rate of change, and the like, surprisingly little incontrovertible evidence has been amassed. The margins of error of the available statistics (which in some cases preclude even the drawing of inferences in respect to individual countries) combined with differences in the underlying definitions of income and the income receiving unit, the coverage of the population, etc. make it extremely hazardous to draw conclusions involving any but possibly a very few countries. Considering that for the most part the statistics generally available now are by-products of administrative or fiscal records, it would appear that until such time as sample surveys designed for the purpose, or other techniques, are more widely adopted, progress in this area of income statistics will remain difficult.

III. The distribution by socio-economic groups

12. The breakdown of national income by distributive shares shows the customary forms in which income is distributed and received. While this type of distribution often throws light on the relative income positions of such broad groups as employees and entrepreneurs, the divisions normally shown cannot be used to indicate how income is actually divided among the various fairly distinct economic or social groups of the population. For this purpose it is necessary to know how large a share of the total wage and salary payments goes, say, to farm labourers, to other unskilled workers, to semi-skilled and skilled wage earners, to

clerical and salaried professional groups, and to salaried managers and executives; how much of total entrepreneurial income is received by landless peasants or share croppers, by small, middle-size and large-scale farmers, and by "little" and "big" independent businesses and professional men; and how much income from property and from transfer payments goes to each of these types of earners and to the rentier and pensioner groups. Obviously, the precise form that such a distribution can most usefully take will depend on the industrial and social structure of a country, but in general the basis will be some combination in condensed form of the classifications by occupation and industry and the classification by status (as employer, employee, etc.). In certain countries with a recent colonial background where the population consists of two or more numerically important distinct racial groups and for which figures on a national basis might be misleading, a further division into indigenous and foreign groups may be useful.

13. Unfortunately, distributions of income according to socio-economic categories are rarely if ever included in official national accounts publications. However, such distributions can sometimes be constructed from information given in these publications in conjunction with other data from population censuses, labour force surveys, occupational statistics, etc. Estimates of total earnings and relative earnings per worker by socio-economic groups were prepared in this way by the Statistical Office for Chile, Cuba, Italy, Japan, Puerto Rico, Peru and Venezuela. ^{3/} In other countries, including Canada, Denmark, Norway and Sweden, the detailed breakdowns published by the taxation authorities can be used for this purpose. The most recent population censuses of the Philippines and the United States, and sample surveys carried out in Italy, the United Kingdom and the United States are other sources.

14. As in the case of income-size distributions, international comparisons of the distribution by social or economic groups are subject to serious qualifications. Differences in classifications, in the definitions used, in coverage and in the dates to which available figures refer are some factors which stand in the way of valid country to country comparisons at the present time.

^{3/} Statistical Papers, Series E, No. 3, Ch. IV.

IV. Conclusion

15. In view of the limitations of the available data, especially from the point of view of their comparability over time and from country to country, the Statistical Office has not so far published this material on a regular basis. With the greater volume of income-size distribution statistics now becoming available, however, it may for the first time be feasible for selected materials to be published periodically, say, once a year. In order to minimize the danger that figures will be misconstrued, it would be necessary to include rather detailed notes explaining the figures.

16. Previous resolutions of the Statistical Commission and the Economic and Social Council have laid the general basis for continued attention to this general subject as an important aspect of national income statistics broadly viewed. It will be recalled that the report A System of National Accounts and Supporting Tables makes no provision for an extension of the system to include distribution by size or by socio-economic groups. The Commission may therefore wish to consider whether attention should be given to the possibility of evolving suitable categories and classifications which would tend to improve the international comparability of these statistics.
