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STATISTICS OF THE DISTRIBUTION OF PERSONAL INCOME

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STATISTICS OF THE DISTRIBUTION OF PERSONAL INCOME

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INTRODUCTION

1. At its ninth session (1956), the Statistical Commission of the United Nations examined the principal methods by which countries compile statistics of the distribution of income by size and by socio-economic groups on the basis of a memorandum prepared by the Secretary-General (E/CN.3/208). After reviewing the memorandum, the Commission requested that it be circulated to Governments of Member States for comments. This report is in compliance with this request. Although it is based on the original memorandum, the study also takes into account the suggestions made by the Commission and includes data relating to recent country studies which were not available when the original report was prepared.

2. The importance and need for statistics on the distribution of income have often been stressed by international bodies. The International Labour Office has called attention to the importance of statistics on individual and family income in connexion with its studies of workers' levels of living.^{1/} In 1950 the General Assembly in resolution 403 (V) stated, "... it is desirable that the under-developed countries should have knowledge of their national income and its distribution". In 1951 the Economic and Social Council adopted resolution 369 (XIII), in which it requested the Secretary-General to encourage the preparation of basic statistics in both developed and under-developed countries which would, "... take into account the existing differences in the economic and social structure of the countries concerned". In the Preliminary Report on the World Social Situation^{2/} the relation of income statistics to various social statistics was stressed, and the inadequate and scanty nature of the existing data was noted. In the Survey of Social Statistics^{3/} the use of income-size distribution statistics relating to the incomes of individuals and families was noted as being important for social as well as economic studies. It was indicated that the usefulness of these statistics may be increased by their cross-classification according to social and economic groups.

1/ International Labour Office, The Workers' Standard of Living, Studies and Reports, Series B, No. 30, pp. 23-31, Geneva 1938.

2/ United Nations, E/CN.5/267/Rev.1, pp. 129-136, New York 1952.

3/ United Nations, Statistical Papers, Series K, No. 1, pp. 15-16, New York, 1954.

I. SCOPE AND OBJECTIVES

3. The principal purpose of this paper is to provide a review of country practices in the preparation of basic statistics of income distribution, including a brief reference to the stated uses of the statistics and consideration of the sources, concepts and methods used in developing the data. Attention is directed largely to the collection of primary data by such methods as censuses, sample surveys of the population and the tabulation of income, wage or social insurance tax returns. The paper is not concerned with the development of more comprehensive measures of income distribution through the analysis and integration of primary statistics, for example, the preparation of coefficients of inequality such as that illustrated by the Lorenz curve. While major emphasis is given to distributions of income by size, attention has also been paid to statistics of the distribution of income and income receivers in terms of other socio-economic characteristics.

4. It is not considered advisable at this stage in the development of the subject to formulate recommendations for the establishment of international standards concerning definitions and methods. However, the paper does comment very briefly on the need for comprehensive descriptions of the concepts underlying the statistics and the methods used in their compilation, as well as for the presentation of income distribution statistics under a sufficient number of sub-classifications to permit their use in various alternative forms. The emphasis is therefore placed on classification and detail, with a view to improved usefulness and significance, rather than upon standardization. Despite differences in the social and economic structure of countries, and in the purposes for which size distribution studies are undertaken it should be possible to move fairly rapidly towards an increased degree of comparability in at least some aspects of this work. For example, modifications which might be made to the prevailing cross-classifications of income distribution statistics by employment status and industrial sector and possibly by urban - rural and farm - non-farm classifications in some countries could lead to direct gains in the comparability and general usefulness of the figures.

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5. The term "income distribution statistics" has often been used to refer to distributions of (a) functional shares or types of income, (b) income by industry of origin, (c) the number and amount of incomes of individuals or families by size of income, and (d) income and the number of receivers by other socio-economic characteristics. The distributions of income by functional shares and industry of origin represent integral parts of the statistics presented within a national accounting framework and have been examined in detail in other reports including the United Nations study A System of National Accounts and Supporting Tables.^{4/} The present study is therefore limited to statistics of income classified by size and other socio-economic characteristics of the recipients. While the distribution of income by size is interesting and important in itself, other characteristics which have been found useful in classifying income receivers include age, sex, geographical area, marital and employment status, family or household composition, occupation and industrial attachment.

Uses of Income Distribution Statistics

6. A number of the statements concerning the uses of income distribution data which have prefaced recent official studies of this subject have tended to emphasize the immediate social and economic purposes - frequently of very broad scope - which have inspired the study. These statements have been amplified in recent semi-official and private reports where the review and classification of uses have been undertaken in a search for broad principles to govern the definition of income recipient units, the income period and other concepts which vitally affect the preparation of the statistics. Both official and other categories of study have emphasized the wide variety of economic and social purposes in which income size distribution statistics may be employed, especially when supported by appropriate cross-classifications by socio-economic groups.

7. In some countries, periodical statements of income distribution are compared to reveal the effects of economic development and institutional or structural change upon the relative size of the income shares, and thereby the extent of the

^{4/} United Nations Studies in Methods, Series F, No. 2, New York, 1953.

social changes which are taking place. The data are employed in certain studies to measure income inequality and to show the relative importance of different sources of income. Income distribution estimates are regarded by some countries as essential in analysing and framing economic policies. In this context the usefulness of the data in studies designed to throw light on the processes of income distribution and the spending habits of consumers has been stressed. The assessment of tax yields and the evaluation of income redistribution programmes by fiscal policy and other methods are also greatly assisted by this material. The value of these data for studies on savings and capital formation is also recognized in the literature. Sample studies of income and expenditure have been undertaken to facilitate the establishment of minimum wages for certain sectors of the economy and to provide some part of the statistical basis for estimates of import requirements in certain classes of commodities. The number of these general and special purpose uses of the data is almost without limit.

8. Recent studies have tended to emphasize the use of income distribution statistics in analyses concerned with (a) the distribution of payments for economic activity, and (b) the distribution of purchasing power available for consumption spending or personal saving. The first group of studies is concerned with examination of the forces affecting the income structure of an economy. Certain of these forces originate in economic expansion, in cyclical movements in output, and in institutional change within a country. For this purpose size distribution statistics classified by appropriate socio-economic characteristics such as employment status and occupational status have been used to supplement the information provided by statistics of income distribution by factor shares and by industry of origin. The second group of studies is primarily concerned with the relationship between the distribution of incomes and the spending and saving decisions of the household sector. The data are therefore valuable for purposes of market analysis, the forecasting of consumer demand and analysis of the saving habits of persons.

9. These approaches to the question of the uses of income distribution statistics have clarified some of the problems of concept and definition. It has been indicated in a number of country studies that the design of a single general purpose form is difficult to realize. The clear and detailed formulation

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of ends to be served is needed as a pre-requisite to the definition of such concepts as income and recipient unit, and presumably to the preparation of classifications by socio-economic characteristics. On the other hand it is not suggested that a multitude of concepts is required. For consumption and saving studies, and for a wide range of other studies in which the same material would be useful, perhaps only one set of definitions is needed. While, for analyses of the distribution of incomes and related social and policy-making studies, it is suggested that some modifications in the concepts of income and the recipient unit, and possibly in the classifications by socio-economic qualities would be of material assistance. It may of course be necessary to adjust these basic definitions in some degree to meet the requirements of special studies, provided that the available statistics are shown in sufficient detail to permit such changes. In this context countries have noted the flexibility of definition which is possible in using data provided by detailed sample survey methods.

The Present Status of Statistics of Income Distribution

10. As already noted, income distribution statistics are regarded in many countries as a valuable tool in the analysis of consumer demand, personal savings, tax yields, the distribution of income shares and other macro-economic studies, as well as for such social studies as the public provision of welfare services and benefits. The use in this work of aggregates derived from national accounts estimates is also of course of major importance. Up to the present time the development of national income statistics has been principally in terms of two types of income distribution: by functional shares and by industrial origin. Except for a few countries little attention has been paid to the preparation of estimates of the distribution of personal income or some related concept by income size classes. However, progress in the subject is tending to emphasize the usefulness of statistics of income distribution by size and to bring them into close relationship with national accounts estimates, specifically with certain components of the current account for the household sector. For example, it has been pointed out recently by countries concerned with the use of size distribution material and national accounts data in planning for economic development that planning requires more detailed information on the distribution of incomes than

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the per capita estimates obtainable from the entries of the household account of the national accounts.

11. It is therefore appropriate here to consider this relationship further by reviewing the entries in the current account of households and private non-profit institutions defined in the United Nations report, A System of National Accounts and Supporting Tables.^{5/} This account appears as follows:

Households and private non-profit institutions

Current Account

1. Consumption expenditure	5. Compensation of employees
2. Direct taxes	6. Income from farms, professions and other unincorporated enterprises
3. Other current transfers to general government	7. Income from property
4. Saving	8. Less interest on consumers' debt
	9. Current transfers from general government

Disposal of income

Income of households and private non-profit institutions.

The entries in this account and the relationship of this account to the remaining accounts of the system are examined at length in the United Nations report. The sum of the entries 1 and 4 represents disposable income after taxes which is the aggregate relevant for studies of consumer behaviour, economic welfare and associated investigations. It approximates what has been termed the concept of "consumer income" in size distribution studies. The aggregates on each side of the foregoing account represent personal income which is the total of earned income and transfer payments accruing to the sector. Entries 5, 6 and 7 include income in kind and other forms of imputed income as well as actual

^{5/} United Nations Studies in Methods, Series F, No. 2, New York, 1953.

receipts; it is the sum of these three entries which approximates to the concept of "economic income" put forward in size distribution studies as an estimate of factor earnings appropriate for studies of income structure. Items 8, 9, 2 and 3 then represent the entries by which earned income is translated into disposable income after taxes. The effects of transfer receipts and direct tax payments are sometimes shown separately in income distribution studies.

12. In reviewing this relationship between size distribution statistics and national income estimates it is well to note that certain points of difference exist in the definitions of income. A number of these differences arise from the need to derive size distribution estimates from statistics initially collected for some other purpose, for example, income-tax data. The differences relate to both the concepts and coverage of the data. From the institutional viewpoint, size distribution data usually exclude the income of non-profit institutions and of life insurance companies, superannuation and private pension funds etc. which are included in national accounts estimates as part of personal income.

Furthermore, imputed items, accrued interest on bonds and employers' contributions to social security which are by definition included as part of income in national accounts estimates are sometimes omitted from size distribution statistics.

Income concepts employed for tax purposes in particular may reveal other significant differences, and often omit entirely the incomes of persons below a specified level. On the other hand, the size distribution data may in some cases include capital gains, annuity receipts and similar items which are excluded from the national accounts estimates. The matter of income definition is of critical importance in a study of this subject and is therefore examined in some detail by reference to country practices in following chapters.

Sources of Income Distribution Data by Size

13. Virtually the only sources of data on the distribution of income of all classes of income recipients by size classes are statistics of personal income taxes, population censuses and sample surveys. Limited data on distributions by size have been derived from statistics of weekly earnings, wage taxes, social insurance contributions, etc. In a few countries more than one of these sources have been combined. In the Netherlands and Sweden, for example, the population

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census data have been used as a frame for drawing a sample of the personal income-tax statistics from which estimates of family income by size groups were then derived and in Belgium and Western Germany separate distributions based on personal income taxes and wage taxes have been combined to provide a size distribution with a broad coverage.

II. ASSESSMENT OF PERSONS FOR INCOME TAX
AS A SOURCE OF INCOME DATA

14. Personal income tax returns, despite certain shortcomings, are an important source of information on the size and socio-economic characteristics of income receivers. The increasing reliance on direct taxes in some countries as a means of financing government activities and the consequent extensions in the coverage of the tax statistics seem likely to lead to an increase in this type of information and to augment its usefulness. In some countries tax statistics are the only available information on the distribution of income by size while in several others, including Canada, Denmark and the United States, they have been effectively used together with data from sample surveys or censuses of population to develop size distributions for the whole range of incomes.

15. The main drawbacks of tax data as a source of information on income size distribution are the omission of low income groups and the fact that the definitions of income and income recipient unit are determined by the tax laws rather than by the needs of the user of the statistics. To a considerable extent the problem of income definition can be overcome by the preparation of separate distributions for the several types of incomes and deductions shown on the tax return. Separate distributions for such items as transfers, income from personal exertion, property income, personal exemptions, etc., would permit the compilation of the data in a more satisfactory fashion for the purpose at hand. As an example, personal income tax statistics of the United States are classified to provide separate distributions by income-size class of the number of returns and the amount of income for eleven items of income, e.g., salaries and wages; dividends, interest; income from annuities and pensions; rents and royalties; net profit or loss from business and profession; net profit or loss from partnership; net gain or loss from sales of capital assets; net gain or loss from sales of property other than capital assets; income from estates and trusts; and miscellaneous income. The same information is provided for six types of deductions for those returns on which the individual deductions are itemized.

16. The problem of incomplete coverage due to the omission from distributions based on tax returns of low income categories has been partially overcome in several countries by reducing the level of the minimum returnable income to be filed.

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This factor, coupled with the effects on income of the war and post-war inflation, has considerably expanded the proportion of income receivers filing tax returns. Another development which may lead to an increase in the coverage of income tax data is the coupling of social security taxes with taxes on wages or total incomes. As the social security taxes frequently have a lower minimum exemption limit than incomes taxes this development may become an important factor in expanding the coverage of data on income distributions based on personal income tax returns.

17. In addition, the use of sample survey data as an adjunct to data derived from income tax returns permits the extension of the distribution to the very low income levels not usually covered by the tax returns. This practice has been followed in the United States, where income size-distributions in terms of family income units have been prepared by combining income tax statistics with sample survey data. The resulting distribution of incomes was adjusted to the relevant totals of the national income estimates. The problems of (a) separating the incomes of husbands and wives reporting jointly on one return, and (b) combining the individual income distributions into family income units were solved by the use of special tabulations of tax and survey data.

18. In Table 1, the extent of coverage of personal income tax statistics in eleven countries is illustrated in two ways. First, the total income of the broadest size distribution obtained from income tax returns is related to the estimate of the country's personal income shown in the national income estimates for the same year. Second, the total number of tax returns (taxable and non-taxable) plus the number of dependents claimed on the tax returns are compared with the total population for the same year.^{6/} It is evident from the table that for a majority of the countries shown, all of which have attained a relatively high degree of economic development, the tax returns provide a fairly extensive coverage of total personal income - ranging between 60 and 80 per cent. The coverage appears to be even higher in terms of population.

^{6/} A comparison could also be made between the number of tax returns and the size of the labour force. It was not done here since labour force statistics were not available for all the countries listed. Moreover, the labour force would exclude by definition persons not actively engaged. These same persons would be included in the tax returns if they received pensions and/or income from investments.

TABLE 1. COMPARATIVE DATA ON THE COVERAGE OF PERSONAL
INCOME TAX STATISTICS

Country	Income year	Tax return population				Total population	Income reported on tax returns	Personal income estimated from national accounts	Tax return population as per cent of total population	Income reported as per cent of personal income
		Tax returns		Dependents	Total					
		Total	of which taxable							
Thousands						Millions of currency units		Per cent		
Australia	1951/52	3,420	3,420	3,293 ^{c/}	6,713 ^{c/}	8,431	£ 2,157 ^{a/}	£ 3,191	80 ^{c/}	68
Canada	1951	4,102	2,778	3,539 ^{c/}	6,317 ^{c/}	14,009	\$ 10,469 ^{b/}	\$ 16,022	45 ^{c/}	65
Denmark	1952	2,111	n.a.	n.a.	n.a.	4,304	Kr 13,232 ^{a/}	Kr 21,855 ^{d/}	n.a.	61
Finland	1952	1,864	947	1,783	3,647	4,122	Mk 460,500 ^{b/}	Mk 552,900 ^{e/}	88	83
Western Germany	1950	20,100	13,200	19,346	39,400	47,519	Dm 52,000 ^{a/}	Dm 70,300 ^{e/}	83	73
Netherlands	1950	3,994	n.a.	5,853	9,847	10,114	F1 12,102 ^{a/}	F1 15,650	97	77
New Zealand	1951/52	585	520	n.a.	n.a.	1,947	£ 455 ^{b/}	£ 605 ^{df/}	n.a.	75
Norway	1950/51	987	987	1,106	2,093	3,264	Kr 6,514 ^{a/}	Kr 8,869 ^{df/}	64	73
Sweden	1952	3,735	n.a.	n.a.	n.a.	7,125	Kr 26,035 ^{a/}	Kr 32,457	n.a.	80
United Kingdom	1952/53	19,800	n.a.	25,796	45,596	50,857	£ 10,150 ^{a/}	£ 12,643 ^{g/}	90	80
United States	1950	53,060	38,187	80,679	133,739	150,697	\$ 179,148 ^{b/}	\$ 232,000	89	77

Note: These data have been assembled from the official publications of the respective countries. The personal income estimates have been based on official national accounts data. The number of children and dependents as well as the total tax returns population in most cases represent estimates based on a limited amount of official data.

a/ Taxable income only.

b/ Includes non-taxable as well as taxable income.

c/ Based on dependency data for taxable returns only which indicates 1.27 dependent per taxpayer. If this ratio is applied to all individuals filing returns the tax population is 9.3 million or 66 per cent of the total population in 1951. In 1952 the total number of personal income tax returns represented over 80 per cent of the civilian labour force.

d/ Excluding current transfers from general government.

e/ Net of small amount of fees, fines, etc. paid to general government.

f/ Data for calendar year 1950.

g/ Data for calendar year 1952.

19. In countries with relatively under-developed economies income tax statistics in most cases cover only the upper end of the income distribution. Examples are Ceylon and Cyprus for which personal income tax statistics cover approximately 12 and 13 per cent of the national income and 3 and 7 per cent of the population, respectively.

Definition of Income in Tax Statistics

20. It has not been found practicable to attempt a detailed review of the definitions of income which are used in the size distributions of tax data. In general such definitions are to be found in the tax laws and in their interpretation by the courts, and in the complex of economic and social institutions prevailing in a particular country. Aside from these factors, there is a problem of language, often rooted in a country's commercial practices, which may attach different meanings to a given term in different countries. The following notes are accordingly of a general nature.

21. The income tax regulations of most countries distinguish two basic types of income. First, there is a relatively broad concept embracing all income items net of the expenses incurred in acquiring this income, which must be reported in the return. Various terms are applied to this concept such as "gross adjusted income", "true income", "actual income", "reported income". For the sake of simplicity, these various concepts are identified in this report as "reported income". The second major definition concerns the income on which the tax is to be paid. This is often referred to as "assessed", "taxable" or "net income". This concept is usually defined by noting the types of deductions from the reported income which are legally permissible in arriving at the net taxable income; net taxable income is calculated in some countries before deduction of the personal and dependency exemptions, in other countries after such deductions. In general it is "reported income" which is tabulated in the size distribution statistics. Some countries also publish statistics of the size distribution of "reported incomes after income taxes".

22. Most statistics of the size distribution of reported income distinguish between wages and salaries, and other income. Frequently the latter is divided between income from capital such as dividends, interest and rents and income from self-employment which is generally a mixture of labour and property income. Earnings from employment are generally stated gross of the employee's contribution to social

security schemes but net of the employer's contribution. Earnings from self-employment which includes proprietorships, partnerships and the liberal professions are usually defined in terms of the accounting concept of net income customarily used in the country. The earnings of the taxpayer's capital are generally included on a net basis, as for instance in the case of rents and royalties. Differences in treatment among the various countries lie primarily with such items as inventory valuation, imputed incomes (for example, imputed rents of owner-occupied dwellings, consumption of own produce), capital gains and losses, the carrying forward of past losses, and depreciation. Practices also differ on the treatment of such items as interest on government bonds. In Western Germany and the Netherlands this interest is included whereas Finland excludes interest on state bonds and on savings deposits. Imputed net rent on owner-occupied houses is specifically included in the Netherlands and excluded in Australia.

23. Income in kind, aside from imputed rent, is included in Denmark, Western Germany, Netherlands and Norway, although there is some tendency to impute a fairly nominal figure for this item. The treatment of capital gains and losses differs sharply: Australia, the Netherlands and New Zealand specifically exclude such gains and losses while for the most part they are included in Western Germany and the United States.

24. Certain types of transfer income are exempt from taxation in most countries, and in such cases are usually omitted from the reported income. Most of the countries studied exempt military pensions and family allowances. Australia, New Zealand and Norway exclude old-age pensions, and Belgium exempts grants to the disabled. The treatment of private pensions and annuities varies considerably, however. The principle most commonly followed is to treat private annuity and pension receipts as taxable income where the contributions are permitted as deductions; in other cases they are treated as a return of capital. A number of the principal differences in the definitions of income used by countries in preparing income-size distribution studies from tax statistics are given in Table 2.

25. In discussing in earlier paragraphs the uses and present status of income distribution statistics, a broad comparison was made between the entries of the household account in a system of national accounts and the definitions governing income-size distribution studies. Further, a distinction was drawn between size-distribution studies related in concept to (a) disposable income of households after

TABLE 2. COUNTRY PRACTICES IN DEFINING REPORTED INCOME

("Reported income" refers to the income concept used in income-size distributions prepared from tax statistics; it includes all income reported in the tax return, net of the expenses of acquiring this income)

I - item included with reported income
 E - item excluded from reported income
 D - item deducted to arrive at reported income
 ND - item not deducted to arrive at reported income
 n.a. - data not available

	Australia	Belgium	Denmark	Western Germany	Netherlands	New Zealand	Norway	United States
Income in kind	I	I	I	I	I	I	I	E
Imputed rent from owner-occupied dwellings	E	n.a.	I	n.a.	I	E	I	E
Capital gains and losses (current)	E	n.a.	I	I	E	E	I ^{1/}	I
Military pensions, etc.	E	E	n.a.	E ^{2/}	I	E	n.a.	E
Old-age benefits and relief	E	E	I	E	I	E ^{3/}	E	E ^{4/}
Losses of previous years	D	D	ND	ND	D	D	ND	D
Expenses in acquiring income	D	D	D	D	ND	D	D	D
Life insurance premiums	D	D	D	ND	D	D	D	ND
Employee contributions to social security	D	D	D	ND	ND	ND	D	ND

^{1/} Excluded if from securities.
^{2/} Disability pensions only.
^{3/} Private pensions and annuities included.
^{4/} Public benefits.

taxes and (b) personal income of households, before and after the inclusion of transfer payments. The concept of income governing the tax statistics tends to approximate most closely to the accounting concept of personal income, and it is therefore particularly useful in analyses concerned with the mechanics of income distribution. The income unit of tax statistics is the individual or husband and wife, which is also appropriate for such studies. In some instances as shown in Table 2 reported income includes transfer payments such as pensions and relief payments; these transfers should be omitted in preparing the size distribution statistics when the data are required for studies of income structure. In a few cases examined the concepts of the tax statistics were best adapted to other purposes. For example, the exclusion of direct taxes from the size distribution data yielded by tax statistics, as in Denmark, results in a closer measure of the purchasing power of consumers than of the income distribution. And in all cases there are marginal differences in the concepts of the national accounts and those of the tax data, especially in the treatment of such items as income in kind, the deduction of previous losses, and employers' contributions to social security.

Income Concepts Used in Defining Size Classes

26. Most countries preparing income-size distributions from tax data define the size classes in terms of the broadest income concept used in the distribution. Thus, for example, the Canadian data are classified according to "total income declared", that of the United States by "adjusted gross income", and that of Denmark by "taxed income". Several countries including the United Kingdom provide distributions by income-size classes of "net income" which is reported income less certain deductions including national insurance and superannuation contributions and interest payable. In the Australian statistics incomes are distributed by size of the "actual income" whereas the amounts of income distributed refer to taxable income only which excludes exempt income, deductions and personal and dependency exemptions. Since the amounts of the deductions and personal and dependency exemptions are similarly distributed it is possible by addition to obtain a distribution of the actual income less certain exempt income such as pensions and social security benefits.

27. The New Zealand statistics are distributed according to classes of returnable, assessable and taxable income. Briefly, returnable income is defined as total income less the expenses of acquiring such income, war pensions and some types of social security benefits; assessable income equals returnable income less income on which the tax has been collected at the source such as dividends and proprietary income and taxable income is assessable income less personal and dependency deductions. Considerable flexibility is provided by this method since for each definition of income intervals the amount of income matching each definition is distributed.

Income Unit in Tax Statistics

28. The individual tax return is the primary statistical unit in distributions based on tax data. Except for those countries in which joint-reporting of married couples is permitted or required by the tax regulations, the income unit is the physical individual. In general joint returns for married couples are tabulated as a single income unit, whether only one or both are income earners. The effect of this is to obscure such statistics as measures of the distribution of individual incomes or distributions of productive contributions of individuals. A number of countries including Canada, the Netherlands and the United States, which permit or require joint-reporting of the income of married couples, compile separate distributions for taxpayers by marital status. Even where joint-reporting is not permitted it is not unlikely that some distortion in the income distribution occurs from the practice of transferring earning assets between husband and wife to minimize the total tax burden.

29. In a few instances the income unit has been converted from the individual tax return to the family or household by grouping the returns of individual taxpayers according to family or household membership. For this purpose sample survey data or population census records have usually been employed to provide the supplementary information required on family membership. In Denmark, comprehensive family income statistics have been computed by combining income statistics of individuals obtained from tax records with the census records of families. In the Netherlands and Sweden a sample of the tax returns has been collated for all members of a family filing returns by obtaining the individual

family membership data from the population census for a random sample of the population. In the United States income tax statistics have been combined with sample survey statistics by means of special tabulations to achieve the same end.

Intervals Used in Income-Size Distributions

30. In general income-size distributions based on personal income tax statistics are presented within a greater number of income intervals than distributions derived from other sources. This is especially true of the upper end of the distribution which is generally much compressed in distributions based on sample surveys and censuses. Accordingly tax data have been of especial value as a measure of the distribution of the middle and upper incomes. Until recently the exemption levels in most countries were so high relative to a substantial proportion of the incomes that the distributions omitted a considerable fraction of all income recipients. Today, however, tax statistics in many economically developed countries cover a substantial proportion of the population, and in most cases a sizeable but somewhat smaller proportion of the total personal income, as is indicated in Table 1. The number and size of the class intervals into which the tax returns are classified is of considerable importance in the usefulness of these data. It is customary to use narrower brackets for the lower than for the rest of the income scale to avoid the use of income class intervals which include a substantial fraction of the income units. Any shortcomings in this respect tend to reduce considerably the value of such data in economic analysis.

31. Table 3 shows the number of size classes and the percentages of income units and income covered by the largest size classes in a number of countries. This information does not of course constitute a full appraisal of the situation, but where an extreme concentration of incomes or income units within a single size class is revealed it should call attention to the need for a review of the size intervals in use.

32. In a number of countries the published distributions have been confined to income data derived from returns on which taxes are payable. In most cases this results in the omission of a substantial number of returns with incomes above the minimum for reporting purposes but below the taxable minimum owing to dependency or other exemptions. In Norway, for example, the lowest income bracket shown for the distribution of tax returns begins at 2,000 Kr. In the distribution

TABLE 3. COMPARISON OF INCOME INTERVALS USED IN INCOME-SIZE DISTRIBUTIONS PREPARED FROM INCOME TAX RETURNS

Country	Income year	Number of size classes ^{a/}	Largest percentage of income units in one size class	Largest percentage of income in one size class	Number of income size classes with over 10 per cent of:	
					Number of income units	Amount of income
Australia	1951/52	24	8.6	7.7	-	-
Canada	1949	44	10.9	12.2	1	1
Denmark	1952/53	30 ^{b/}	11.1	26.3	1	3
Finland	1952	15	24.0	20.8	4	4
Netherlands	1950	41	13.8	12.2	3	2
New Zealand	1951/52	23	19.3	13.7	5	3
Norway	1952/53	42	9.7	9.1	-	-
Sweden	1952	20	15.6	20.0	1	2
United Kingdom	1949/50	32	15.4	10.7	5	2
United States	1950	49	10.2	9.7	1	-

^{a/} These figures are taken from the distributions having the largest number of income-size classes. Most of the countries included in this table publish income-size distributions in terms of fewer size classes for some of the cross-classifications by socio-economic characteristics.

^{b/} The distribution of the amount of income is limited to 13 size classes.

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examined, 40 per cent of all taxpayers had declared income of less than 5,000 Kr. while the total personal exemption for a taxpayer with four dependents was 5,500 Kr. It follows that the income of such a taxpayer would be omitted from the size distribution study unless his income exceeded this amount. Apart from a minimum filing requirement there does not appear to be a satisfactory solution to the problem of an unambiguous cut-off point for low incomes. Given this requirement, which is already met in some countries, the co-operation of the taxation authorities might be sought in producing size distribution statistics which include the essential non-taxable as well as taxable returns. The practice of leaving out small exempt incomes above the minimum for reporting purposes tends to destroy the usefulness of the information given for the lower income brackets, and to obscure the income level above which the tax statistics are relatively complete. It may be surmised that a comprehensive statement on the lines indicated, produced at intervals of years, would be of considerable value for both the taxation authorities and economic statisticians.

33. Some countries, including Canada, New Zealand and the United States, publish separate size distribution data relating to incomes shown in returns exempt from tax. This practice enhances the general usefulness of tax data as a measure of the size distribution of incomes at the lower end of the income scale, especially when the dependency exemptions are relatively large and more particularly when the marginal allowance increases with the number of dependents as in Norway.

Distributions of Income by Socio-Economic Characteristics

34. Besides preparing frequency distributions of the number of tax returns and the amount of income by income-size classes, a number of countries prepare distributions of the income unit and income cross-classified by various socio-economic characteristics. An examination of these distributions indicates that a rather wide range of socio-economic characteristics is employed in the classifications. These variations arise in part from differences in the tax regulations, as for instance in the classification by type of income, and partly from differences in the extent to which the tax return requests information on the social and economic characteristics of the taxpayer.

35. It appears that much of this information has been collected to assist tax officials in checking the returns and in deriving useful statistics for estimating future tax yields. There is some evidence in the considerable range of data provided by a few countries that the needs of the economist for statistics on income distribution have been taken into account. This is particularly true of the personal income tax statistics issued by the Scandinavian countries and the United States

36. Table 4 illustrates the types of cross-tabulations of socio-economic characteristics and income-size classes that are used in a number of countries with developed personal income tax systems. Owing to the wide variations in the degree of detail and organization of the statistics, the table provides only a limited indication of the material available in each of the countries included.

37. Some tabulations are in terms of the number of income receivers or taxpayers only, others give statistics of the number and amount of the declared or taxable income in each cell. In some instances, the pertinent cross-tabulation is not shown directly but can readily be derived from the data published. In addition to the items noted in the table a number of countries provide data on the distribution of taxpayers and income by a number of characteristics without cross-classification by income-size distribution. The fact, however, that most characteristics are cross-classified by income size attests to the interest and importance attached to it. Frequently fewer size classes are used when cross-classification is employed than in the basic income-size distribution since otherwise the cell populations would become too small.

38. The most common socio-economic characteristics used in classifying tax returns data are: age, sex, employment status, industrial source of income, geographical location and marital and dependency status of the income recipient. Countries levying taxes on wealth, such as Finland, Norway and Sweden, cross-classify income receivers by size of income and property. Sweden appears to be unique in the publication of tables for married couples in which both husband and wife are income earners. These show the number of such couples according to the income-size class of each as well as the industry and type of employment.

TABLE 4. COUNTRY PRACTICES IN CLASSIFYING INCOME SIZE-DISTRIBUTIONS
(DERIVED FROM TAX RETURNS) BY SOCIO-ECONOMIC CHARACTERISTICS
OF THE TAXPAYERS

(x designates the inclusion of an income-size distribution
classified by the designated characteristics in the official
publication of tax statistics)

	Aus- tral- ia	Bel- gium	Can- ada	Den- mark	Fin- land	Neth- er- lands	New Zee- land	Nor- way	Swe- den	United King- dom	United States
Marital and dependency status											
Single persons	..	..	X	..	..	X	X	..	X	X	X
Married couples (joint returns)	X	..	X	..	..	X	X	..	..	X	..
Married couples (separate returns)	..	..	X	..	..	..	..	..	X	..	X
Number of children and other dependents											
Number of children and other dependents	X	X	X	..	..	X	X	X	..	X	X
Geographical location											
Industrial attachment	..	..	..	X	X	X	X	..	X	..	..
Employment status ^{a/}	..	..	X	X	X	..	X	X	X	..	..
Occupational status ^{a/}	..	..	X	X	X	..	X	..	..	..	..
Age	..	..	..	..	X	X	..	..	X	..	..
Sex	X	..	X	X	X	X	X	..	X	..	X
Type of income											
Wages and salaries	X	X	..	..	X	X	X	X	..	X	X
Other income	..	X	..	..	X	..	X	..	..	X	X
Earned income	X	..	X	..	..	..	..	..	..	X	..
Property income	X	..	X	..	..	..	X	..	..	X	..
Personal exemptions	X	..	X	..	..	X	X	X	..	X	X

^{a/} In several instances the employment and occupational status of the taxpayer are combined in one table.
Employment status is used here to designate, in general, the following classifications: wage and salaried employees, self-employed and those not actively engaged. Frequently the self-employed are divided among farmers, members of liberal professions and others.

39. Most countries compiling personal income tax returns classify income receivers by employment status, occupation or industrial attachment, but the types of classifications used and the degree of detail shown vary so much between countries that it is not possible to generalize. The statistics of New Zealand, for example, classify the self-employed into most of the two and three-digit industries of the International Standard Industrial Classification, showing the number of assessable incomes by fourteen income-size classes. Individuals filing tax returns whose principal source of income was from wages or salaries are classified by approximately 170 occupations. Persons not actively engaged in the labour force are classified according to their principal source of income, such as pensions, interest, rents, etc.

40. Classification by employment status generally distinguishes self-employed, wage and salary workers and those deriving their income from farming. Frequently those engaged in the liberal professions are distinguished from the other self-employed. The Canadian statistics distinguish among (a) those engaged in primary production, (b) liberal professions, (c) all employees, (d) salesmen and (e) business proprietors. Employees are separated as to agriculture, business, institutions, government and the armed forces. The liberal professions are subdivided into eight categories, and some of the others are also divided into sub-groups. Taxpayers whose main source of income is from investments or pensions are shown separately. The tax statistics of Denmark show separate data for about forty socio-occupational groups amongst which are (a) farmers by three farm-size groups, (b) directors, (c) factory owners, (d) master craftsmen, (e) technical employees, (f) shop personnel, (g) wage earners, (h) public servants, (i) apprentices and students, (j) persons without employment, etc. In the tax statistics of Sweden the employment status-industry classification consists of employers, employees and persons not in the labour force for each of nine industrial groups. It is of interest to note that while the statistics of the Scandinavian countries include a good deal of detail on occupational-industrial status these classifications are entirely omitted from the statistics of the United Kingdom and the United States. Tax statistics of the Netherlands are distributed by major industrial attachment while those for Austria and Western Germany distinguish taxpayers among agriculture, self-employed, employees and those persons deriving the major portion of their income from interest, dividends and rents.

41. An important limitation of the usefulness of income statistics classified by occupational-industrial status arises from the fact that certain individuals have more than one occupation or receive substantial proportions of their income from different sources. Thus if a taxpayer is employed and receives a major portion of his income from property he will probably be classed as a rentier if the major source of income is the criterion used.

42. To account fully for the tax population it is necessary to include those taxpayers not actively engaged in the labour force, as several countries are now doing. The division of this group between those for whom pensions, as opposed to property income, constitute the chief source of income is a useful distinction. Additional classifications, such as a sub-division of this group by types of property income, would seem to have little significance.

43. Many countries compiling income distributions from tax statistics prepare separate distributions by type of income. The most common distinction is between income from labour and income from property. Where the distinction is limited to these groups the allocation of the incomes of the self-employed is necessarily arbitrary. In the Canadian statistics the distinction is made between earned income and investment income. The latter is composed of interest and dividends and rents while earned income includes all other types of income including that of proprietors. A similar practice is followed in the Australian statistics where the distinction is made in terms of income from personal exertion and income from property. The latter is composed of dividends, interest and rents. Income from personal exertion is divided between salaries and wages and other income which is mainly composed of earnings of the self-employed including professions. In each of these countries the amount of each type of income is shown distributed according to the size class of actual income. No attempt is made to allocate the number of returns according to the chief source of income. The New Zealand statistics provide complete size distributions including the numbers of returns and the amounts of income for persons whose chief source of income is (a) salaries and wages, (b) investments and the like and (c) farming, private trading, professional, etc. In addition a distinction is made between earned and unearned income, in which all income from personal exertion including pensions and annuities is included in the former. Thus,

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unearned income is mainly composed of interest, rents and dividends. In the United States statistics the number of returns reporting each type of income and the amount of each type are distributed according to the size class of the total income; no attempt is made to distribute the number of individual income earners according to the chief type of income. Distributions are also prepared for each type of income cross-classified by size of total income and of the particular income type. The Belgian statistics distinguish between agricultural and industrial profits, earnings of professions, receipts of pensioners, directors and managers, wage and salary receivers and those who receive both wages and profits.

44. Nearly all countries publish some type of information on the marital and dependency status of the income recipient by income-size class. This often takes the form of frequency distributions of returns according to the number of dependents claimed for tax exemptions. In the statistics of several countries the amount of dependency deductions is distributed by income-size class. It would appear that in compiling these data some countries have measured dependency status in terms of the number of dependency credits rather than number and status of dependents. This makes the analysis of the total number and status of dependents somewhat inconclusive.

45. The information on marital and dependency status appears to have two main uses. First, the usefulness of income size distributions in studies concerned with the relative well-being of the population is increased by the addition of information on the distribution of family size and composition relative to income. The publication of income size distributions of taxpayers according to the number and major age groups of dependents claimed provides information which is of considerable value for studies of consumption spending. Given the dependency status and age group of dependents, rough values can be assigned to these characteristics to express the relative importance of the dependents as consumers; the income statistics can then be adjusted to correct for the size of the consumption unit, and a further income distribution estimate can be prepared on this basis. While the assumptions that each family has but one income earner and that the dependents claimed for the income earner represent his economic responsibilities would appear unrealistic in most countries, they

may permit an approximate estimate of the breadwinner's responsibility and hence income need where other data on a family basis are lacking. The relatively common practice of the joint-reporting of the income of husband and wife lends validity to this assumption.

46. Secondly, the information regarding dependents permits the total population of taxpayers and their dependents to be calculated, and from this coverage of the total distribution can be determined. In this respect the United States income tax statistics provide quite complete information. For each of the main types of returns such as joint returns of husbands and wives, individual returns of husbands and wives and returns of single individuals an income size distribution is provided showing for each income class the number of returns by number of individual exemptions. While returns claiming six or more exemptions are grouped into one category the number of exemptions in this group is also shown. The Canadian tax statistics provide size distributions separately for marriage status claimed for tax purposes and an indication of the number of dependents in summary form. The taxation statistics of Australia provide distribution of all dependents according to the numerical dependency status.

47. The statistics of most countries include a geographical classification, normally according to the statutory residence of the taxpayer. Commonly used areas are administrative subdivisions or tax districts. In general the statistics of the Scandinavian countries are distributed on a rural-urban basis as well as for each of the larger cities. In Australia, Belgium, Canada, United Kingdom and the United States the state, province or county is the basic geographical unit. Separate data are published for fifty-eight cities and towns in Canada and for ninety-four in Denmark. Except for the Netherlands no geographic classification was found based primarily on considerations of regional economic units which of course do not necessarily coincide with administrative boundaries.

III. POPULATION CENSUSES AS A SOURCE OF INCOME DATA

48. Population censuses are being used in a number of countries to obtain data on income or earnings of individuals or families. The inclusion of questions on income has been a fairly recent development in the census work of most of these countries. Between 1948 and 1953, questions on income or earnings were included in the population censuses of approximately twelve countries. In Colombia, the Dominican Republic, Mexico, Panama, Venezuela, Ceylon, Pakistan and the Philippines it represented a first attempt to collect such data; a full appraisal of the results of this initial experiment is not yet available for most of these countries. For the most part the results indicated below have been drawn from the experience of Canada, Denmark, New Zealand, the Union of South Africa and the United States which have well developed censuses and have several times included income questions.

49. The main advantage of the census of population as a vehicle for obtaining data on income lies in its universal coverage; it is especially useful in that the low-income recipients often omitted from other studies are taken into account. Another advantage is that it provides information which permits the data and income size distributions to be cross-classified by various demographic, social and economic characteristics of the population. In addition, it represents a ready means of obtaining income or earnings data for units other than the individual, such as families or households. By virtue of its coverage it can be made to yield income size distributions by very small geographical areas where small size sampling is not efficient. The universal coverage of population censuses also permits their efficient use as a frame for sampling. In the 1950 Population Census of the United States the income questions were limited to a 20 per cent sample. The Netherlands and Sweden have used population censuses as a means of drawing a sample of the income tax returns to obtain data on family incomes.

50. The drawbacks of population censuses as a means of obtaining data on income lie largely in the response errors and in the relative infrequency with which such censuses are taken. The response errors arise because people do not want to divulge their income to the enumerators and because information is often

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collected concerning incomes of members of the family not present when the census enumeration is carried out. These members are frequently the chief income earners. The informant (often the housewife) may not know the incomes of earning members of the household and the ability to apply given definitions of income is often seriously compromised. This is especially true when, owing to the large size of the enumeration and the relatively small number of enumerators the training and interviewing time of the enumerators is limited.

51. The fact that relatively few countries have attempted to include questions on income in their population census questionnaires is indicative of certain actual or anticipated difficulties. At least one country, Australia, which included income questions in previous censuses, has omitted them from the more recent enumerations of the population. On the other hand Canada, the United States and New Zealand among others have included questions on income in several of their population censuses with results which are apparently regarded as satisfactory. There is in some countries at least a danger that the inclusion of a question on income might weaken the co-operation of the respondents and hence the accuracy of the census generally. It is likely also that such a question would substantially increase the total cost of the census, since it would require better trained enumerators and would lengthen the time for individual enumeration. In 1930 and on preceding occasions Denmark dealt with this problem by obtaining particulars of the previous year's income of every person registered in the census from the taxation authorities and compiling family income statistics for the whole population on that basis.

Definition of Income in Population Censuses

52. The various definitions of income used in census inquiries may be divided into two main types: (a) labour income which includes wages, salaries, commissions, piece-rate earnings, tips, etc., and (b) total earned income from capital and personal services plus pensions, social security benefits and other regular receipts from past savings or public transfers. In general, single-time receipts such as inheritances and lump-sum insurance payments are excluded. Income from self-employment is included in (b); this income is usually defined as net receipts, arrived at after deducting from gross receipts all expenses of acquiring the income. Net losses are also included. The income questions in

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the Canadian Population Census of 1951 and that of Panama for 1950 were restricted to questions concerning labour incomes described in (a) above. Marginal differences in the definition of income may be noted in the remaining inquiries for example, the recent censuses of Mexico, New Zealand and South Africa include income in kind which is omitted from the income definition used in the United States.

Income Unit in Population Censuses

53. One advantage of the population census is that it permits the collection of income data for such groups as families or households, as well as individuals. Cross-classification of income size distributions of family incomes by socio-economic characteristics however is limited in most cases to the characteristics of the head of the household. Most distributions of income size and other characteristics in the statistics of the United States are for the incomes of individuals; family incomes are distributed primarily by geographical area.

54. In the Canadian and South African statistics, the definition of family is limited to husband and wife, with or without children, or parent with an unmarried child (children) living in the same housekeeping arrangements. Family membership is thus virtually restricted to persons having a husband-wife or child-parent relationship. The definition used in the United States is broader in that it includes any combination of two or more persons related by blood, marriage or adoption living together.

55. Although earlier censuses in Canada used the family as the income unit, the most recent census, which restricted the definition of income to money earnings from wages and salaries, was prepared in terms of individuals only. The wage data collected in the 1950 population census of Panama was also tabulated by income size class for individual employees only. New Zealand statistics have always been compiled in terms of individual income recipients. Those for South Africa have been collected and published for families.

Income Size Distributions

56. In obtaining income data by personal interview various techniques have been developed to maintain the co-operation of the respondent in the hope that this would ensure accurate answers to the income inquiry and other questions. One widely used technique for collecting income data has been to present the

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respondent with a set of income brackets for checking; the use of this method has yielded mixed results. In its last two population censuses the Union of South Africa has used the bracket type of question. Canada, which had called for the actual income amount in previous censuses, experimented with the bracket question on its latest population census. Indications are that this has not resulted in any substantial improvement in the accuracy of the income data. New Zealand took the opposite course and altered the form of the income question in its last census to require the reporting of income to the nearest £10. In the 1950 population census of the United States, as in the previous one, the exact amount of income was requested separately for each individual.

57. Both New Zealand and the United States set upper limits to the size of incomes to be reported at the actual figure, the former at £750 and the latter at \$10,000. The number of income brackets used in South Africa was expanded from nine to seventeen in its latest census and the highest level from £400 to £5,000 for family incomes. The highest Canadian bracket is \$6,000 and over for individual earnings from personal services. The establishment of maximum amounts of income to be reported is a recognition of the increased difficulties of obtaining accurate income figures and adequate response at high income levels. The use of "range of income" in lieu of actual income as well as the establishment of maximum reporting amounts obviously limits the data compiled to numbers of individuals or families and thus prevents the derivation of income totals.

Distribution of Income by Socio-Economic Characteristics

58. As noted above population censuses provide the possibility of cross-classification of income size distributions by the various socio-economic characteristics included in the census. In fact only a limited use has been made of this possibility in most countries. Cross-classification by personal characteristics such as age, sex, occupation are limited to income units in terms of physical individuals, though they could be prepared by families on the basis of the characteristics of the head of the family. In general cross-classifications are prepared by size of income and age, sex, marital status, employment status, occupation, industrial attachment, and regional and urban-rural location. In Canada and the United States income distributions are also classified by number of weeks of employment.

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IV. INCOME STATISTICS DERIVED FROM SAMPLE SURVEYS^{7/}

59. In recent years sample surveys have been used increasingly to collect information on various socio-economic characteristics of the population, both in countries with well-established statistical systems and in those countries where statistical activities are of very recent origin. In the latter countries sample surveys are frequently the most important and often the only source of data on many characteristics of the population. Many such countries are seeking rapid economic development through some means of economic and social planning by public authorities, and much of the demand for data on the population characteristics of these countries arises from these efforts.

60. In the inquiries conducted by under-developed countries, quantitative data is frequently sought on such questions as: what do people do for a living, what is the structure of the family or household and, perhaps most important, what and how much do they consume? The emphasis on consumption arises from an interest in the analysis of welfare. Information on income is often sought primarily as a check on the total reported expenditures. But it may also be used in many economic studies including those concerned with the savings of the family or other income unit and the extent of agricultural indebtedness. The same information is used, often in conjunction with other data, to classify consuming units by economic and social status. For this purpose relatively few income classes would be sufficient to divide the population into the relevant economic groups based on their income. Other important socio-economic characteristics used for purposes of classification are the geographical location, the urban-rural location, employment status and the composition of the family or other income unit.

61. While the collection of income statistics by sample survey methods is usually undertaken in conjunction with family expenditure surveys, a few countries have

^{7/} Most of the sample surveys referred to here are described and the sources given in Sample Surveys of Current Interest, United Nations, Statistical Office, Statistical Papers, Series C, Nos. 5, 6 and 7, New York, 1952-1955.

linked the collection of income statistics with surveys designed to gather other information on consumer finances such as savings, changes in liquid assets, and income and expenditure expectations. Such surveys have been undertaken in Ceylon and the United Kingdom in 1952 and have been made annually by the Federal Reserve Board of the United States since World War II. On the other hand, the annual survey of the incomes of families and unrelated individuals taken in the United States by the Bureau of the Census and the sample survey of personal incomes taken in Schleswig-Holstein in Western Germany in 1949 have been limited entirely to questions on income.

Definition of Income in Sample Surveys

62. The definitions of income used in sample surveys have generally been very broad and normally include all money earnings, income in kind and most types of transfer payments received by the family or spending unit. All money earnings are generally defined to include salaries, wages, income from property and self-employment, stated gross of taxes and social insurance contributions but net of expenses incurred in acquiring the income. In most surveys, income in kind is included, though it is specifically excluded in the 1952 Canadian Survey, the Sample Census Survey in the United States and, except for food produced by farmers for their own use, from the United Kingdom survey. The Netherlands survey excludes production for own use though other income in kind is included. In the 1952 Survey in Puerto Rico income in kind is limited to the value of food produced for own use; while in the 1952 Budget Inquiry in Ireland income in kind is limited to the imputed value of home-produced food and meals supplied by an employer. The imputed value of owner-occupied dwellings is generally excluded though it is specifically included in the surveys in Brazil, Panama City, Guatemala City and Colombia.

63. In many countries money receipts from other than earnings, such as receipts from pensions, annuities, gifts, and government relief, and other transfer payments are included in income if on a regular basis while single-time receipts such as inheritances, and lump-sum insurance proceeds are often excluded, as for example in surveys conducted in Canada, the Netherlands, Ireland, Panama City and the sample

census survey in the United States. Exceptions are the sample surveys taken in Norway, Ceylon and Puerto Rico which include single-time gifts and inheritances. In the Puerto Rico survey, single-time gifts and inheritances are treated as part of total income but not current income.

64. The treatment of receipts from boarders and lodgers, which are generally included in family income, may present special problems. In the 1952 survey of British incomes and savings two-thirds of the gross payments for lodging are included as net family income from this source, while receipts from boarders, if not more than three per unit, are entirely excluded on the ground that it is difficult to estimate the net earnings in such a case. If there are more than three boarders the offering of board is treated as a business and only the net receipts are included. In the United States Federal Reserve's survey of consumer finances gross receipts from less than four lodgers are included while all receipts from boarders are included on a net basis.

65. Several of the sample surveys reviewed provided separate tabulations of income before and after the deduction of personal income taxes and social security taxes. In the household expenditure surveys in which income is recorded before the deduction of taxes such taxes are usually included as expenditure items. In the British sample survey which focussed interest on the factors influencing personal saving, the concept of net income (gross income less direct taxes on income including national insurance contributions) was used.

66. The main distinction between the concept of income used in the sample surveys for family budget studies and that found in the income tax statistics is that the latter generally excludes most types of income in kind and various public transfers which are part of income available for consumption and as such included in the surveys of household budgets.

Income Unit in Sample Surveys

67. Unlike income statistics compiled from tax returns which for the most part represent the income of individual persons, the income unit in most sample surveys is the family or group which carries on consumption in common and unattached individuals living alone. This is due to the fact that most sample surveys by which

income data are collected are primarily designed to furnish data on consumption habits. For this purpose some countries have adopted a relatively narrow definition of the family, but in most studies the concept of the spending unit has been broadened to refer to a group whose members pool all or part of their income for food, shelter and other common needs. The composition of this group depends in large part on the social and economic organization of the individual society. Where it is common practice for the family group to extend beyond the husband, wife and children to include parents and other relations, whether dependent or not, the definition of the spending and income unit has in general been made to reflect this situation.

68. In the 1952 survey of British income and savings, income units were defined as follows:

- (a) Married couples and their children under eighteen years of age;
- (b) All single persons of eighteen or over. However, persons of eighteen or over who had incomes of less than £50 a year and were living with relatives were assumed to be dependents of their relations and were treated as forming part of their income unit.

Defined in this fashion the income unit is narrower than what is commonly meant by family. Its choice has been explained as the desire to define "groups of people of such a type that each was governed by a single will in the allocation of its resources".^{8/}

69. In most studies the "family" or spending unit includes everyone who lives in one dwelling and shares the main household expenses or eats at a common table, with the usual and principal exception of paying boarders. In the Canadian survey of 1947-48 the income unit was defined as a "group of persons who meet expenses from a common income, or one person who is financially independent". Operationally this appears to be very close to the income unit as defined in the United States annual census survey which includes all persons related by blood, marriage or adoption who live together and pool their incomes. Unrelated individuals, that is

8/ H.F. Lydall, British Incomes and Savings, p. 196, Blackwell, Oxford, 1955.

persons not living with relatives, are treated as separate income units and are distinguished in the statistics. Very much the same definition was used in Ceylon which, however, like the definition used in Canada, requires a common pooling of at least one half of the earnings of income receivers to have them counted as members of the unit.

70. In a number of countries sample surveys have been limited to certain groups in the population. The Puerto Rico survey of 1952-53 included only wage-earners' families. These were defined in terms of employment and economic status. Thus families having members in certain clerical or salaried positions were excluded as well as families of the self-employed who engaged one full or two part-time workers. Farmers were excluded if owning ten or more acres of land.

Enumeration Methods used in Sample Surveys

71. In contrast with the usual procedures of income tax reporting, the collection of information on personal and family incomes by means of sample surveys is normally carried out by a personal interview with the head of the household, one or the other spouse, or in some cases, of each income recipient in the family or household. Sample surveys are usually limited to a relatively small number of persons or income units and provide a much better opportunity to use trained interviewers and to allow them sufficient time to carry out the interview than is usually available in general censuses of population. In addition, it is generally possible to include a rather large number of questions in order to probe somewhat deeper into the characteristics called for in the survey and to aid in generating responses by a predetermined set of "lead" or reminder questions.

72. Several surveys of family expenditure have made use of account books which were left with the respondent during the period covered by the income and expenditure survey. Among the latter have been surveys of family expenditures in Brazil, Canada, Guatemala, Ireland and the Netherlands. In the Brazilian survey the use of an account book was limited to families in urban areas. In all of the countries mentioned the use of an account book was coupled with one or more personal interviews. In several surveys the forms were either filled out during the interview or left after the interview so that other members of the family not present during the interview could assist in providing the information requested. A number of forms or schedules used called for a great deal of information on a

wide range of socio-economic characteristics in addition to the information on income and expenditures. In the Canadian survey of 1952 the basic schedule contained over four hundred questions.

73. In size the samples ranged from about 25,000 households used by the United States Bureau of Census to seventy-four families in the 1952-53 survey of the Central Bureau of Statistics in Norway. The 1952 Canadian sample survey covered 5,600 non-farm families, the surveys in the Netherlands and Ireland each included about 3,000 non-farm families, the 1952 Survey of British incomes and savings 2,600 income units and Ceylon, 970 households. Nearly all the other surveys reviewed dealt with less than 1,000 family or household units.

74. About one half of the surveys reviewed obtained income data for a period of one year, the remainder varied from one month in each of four quarters in a sample survey in Northern Rhodesia to the earnings of working-class families in a mining district of Peru for a single week. A sample survey of the province of Schleswig-Holstein in Western Germany requested income data for the latest week, month and year. In those countries in which annual data were requested, several timed the surveys to coincide approximately with the date for the filing of income tax returns so that the respondent would have the necessary information in mind. This was true for Canada, the United Kingdom and the United States. Several surveys requested data on income for a recent period such as a day, week, month or agricultural season. In Ceylon and Panama City where this approach was tried the data were then converted into monthly averages.

75. The collection of information on incomes by means of sample surveys of household budgets has also served as a means of classifying expenditure budgets by income size. For the latter purpose there is generally no need to classify the income statistics by detailed size classes. Accordingly fewer income size classes are generally compiled on the basis of sample surveys than is the case when the primary object of the tabulation has been to provide income size distributions. In a few surveys for which the income distribution data have been presented in a fairly large number of size classes, as for example in the 1952 survey of consumer finances for Ceylon and the survey of British incomes and savings, the number of income size brackets used to classify various socio-economic

characteristics or spending patterns of the families is much fewer than in the most detailed compilations of income data. For instance, the survey in Ceylon which provides an income distribution table using twenty income size classes uses but eight for classifying consumption by family income size. Most of the data in the British survey on family characteristics including spending, saving, liquid asset holding, etc., is classified according to five family income size classes although income distribution data is provided for twelve income size classes. Several family budget surveys in countries lacking other sources of income size data have provided a rather large number of size brackets for their income size distributions. This practice appears of dubious value for rather small samples as it may result in very low cell populations.

Distributions of Income by Socio-Economic Characteristics

76. It has already been mentioned that most sample surveys for the collection of data on the incomes of individuals, families or other units have had as their primary purpose the measurement of expenditures or consumption. The extent and type of data on other socio-economic characteristics collected in these surveys vary considerably. Demographic information regarding individuals, income units and heads of families has been widely sought, mainly in response to two needs: first to ascertain the extent to which the sample is representative on the basis of known demographic statistics, and second to analyse the information on expenditures or consumption in terms of the factors affecting needs, such as the size, composition and location of the income unit, etc. The first factor is undoubtedly important in the case of surveys designed to provide information on income size distribution such as that of the United States Census Bureau or to provide data on the volume of savings as well as income such as those of the United Kingdom and Ceylon. In Ireland the demographic data for heads of households in the sample was adjusted by reference to the corresponding data from the 1951 Population Census for the purpose of computing properly weighted sample averages.

77. In the published results of most surveys, information collected on the characteristics of the family or other income or consumption unit used, as well as that collected on individuals not members of families or on the head of the

family, is shown cross-classified according to the income size or to the average or median income of the income unit possessing the same characteristics. The exact attributes dealt with and the manner of classification used vary widely so that it is seldom possible to make valid generalizations. In general the classification of families or other income or consumption groups is limited to the number of members, geographical location, and such characteristics of the family head as age, sex, occupation, employment status, etc. The sample survey of family budgets for Barranquilla, Colombia, classifies the family membership according to the relationship to the head of the family. Detailed classification of family members is usually in terms of individuals for such characteristics as age, sex, literacy, education, etc., though this is frequently cross-classified according to the size of the total family income. A number of surveys treat income receivers separately and some distinguish between those receiving wage and salary income only, and those with other types of income. In the survey of British incomes and savings income units are classified according to the type of income and by income size class for that income type.

TABLE 5. SOME SOCIO-ECONOMIC CHARACTERISTICS OF FAMILIES AND INDIVIDUALS OBTAINED FROM SAMPLE SURVEYS

(X denotes characteristics cross-classified by income size class,
0 denotes characteristic not cross-classified by income size class)

	Brazil	Canada	Ceylon	Colombia, City of Barranquilla	Gold Coast, Kumasi	Guatemala City	India, Poona	Ireland	Japan	Netherlands	Portugal, Lisbon and Oporto	Puerto Rico	United Kingdom	United States
Number of persons in income unit	x	x	x	x	x	0	x	x	x	x	x	..	x	x
Number of children in income unit	0	..	..	0	..	0	..	x	..	x	0	..	..	x
Number of income earners in income unit	..	x	..	..	x	..	x	x	x	x	x	x	x	x
Geographic location of income unit	..	x	..	0	x	..	0	x	x	x	..	x	x	..
Industrial attachment of income receivers	..	..	x	..	0	..	x	..	..	..	0	..	..	X
Head of household - Age	..	x	..	..	..	0	x	..	0	..	..	..	x	x
- Occupation	..	..	..	0	..	..	x	..	..	x	0	..	x	x
- Employment status	..	x	..	..	..	x	0	x	..	x	x	..	x	x
Individual family members or families - Age	0	x	..	0	0	0	..	..	..	x	0	0	0	x
- Sex	0	x	x	x	0	0	x	..	..	..	0	..	0	x
- Race or colour	..	..	x	..	..	..	x	..	..	..	..	..	..	x
- Schooling	..	..	x	0	..	..	0	..	..	x	..	x	..	..
Relation of family members to head	0	x	..	x	..	0	..	..	x	..	0	..	X	x
Source or type of income	0	x	..	..	0	x	x	..	x	x	x	..	..	x
Expenditures by major type	0	..	x	x	0	x	..	x	x	x	x	x	..	..

78. Table 5 indicates for a few sample surveys some of the socio-economic characteristics more commonly used for classifying families or income receivers. Age, sex, and number of family members and children appear to be the most usual characteristics employed. While the employment status of the head of the household is frequently requested this concept differs considerably from one survey to another. This may be seen from the following tabulations:

Groups Distinguished under Concept of
Employment Status

Canada	United Kingdom
not in labour force	self-employed
employee	managers, etc.
employer or own account	clerical and sales
	skilled manual
Guatemala	unskilled manual
labourers	retired, etc.
commercial employees	
government employees	United States
workers on own account	professional, technical and
	kindred (self-employed, salaried
India	separately)
salaried workers	farmers and farm managers
casual workers	managers, officials and
self-employed persons	proprietors (self-employed,
employers	salaried separately)
	clerical and kindred workers
Ireland	sales workers
professional, employer or manager	craftsmen, foremen and kindred
salaried employee	private household workers
skilled wage earner	service workers except private
semi-skilled or unskilled wage earner	household
retired or not gainfully employed	farm labourers and foremen
	labourers except farm and mine
Portugal	armed forces and not employed
professional, executive and higher	
officials	
salaried employees	
wage earners	

Factors Affecting the Accuracy of Income Data from Sample Surveys

79. The problem of accuracy in the reporting of data on individual or family income is present in the several methods used to collect such information. Income statistics based on personal income tax returns are subject to an unknown degree of avoidance and evasion. This appears to be relatively low for countries with well developed tax systems especially when coupled with relatively low exemption levels and the practice of tax withholding by employers. In a number of countries where such provisions are not the case the extent of tax evasion as judged from alternative measures of income appears to be significant.

80. Sample surveys lack the compulsion and penalties for inaccurate reporting included in tax regulations; in addition to sampling errors the surveys would seem therefore to be subject to errors of non-response and inaccurate or incomplete reporting. The last two considerations are particularly important in sample surveys designed to obtain data on individual or family income size. Except where account books are used over relatively long periods the data tend to be derived from memory rather than records. The timing of surveys to coincide with the filing of income tax returns is intended to reduce errors from this source; but this procedure is of little value in countries where personal income taxes are levied on relatively few income receivers. Another procedure intended to minimize error is to ask for the income of the latest period such as day, week or month, and to check the information given in response to this question against the data furnished for a longer period such as a year. This procedure appears to work fairly well in the case of incomes from wages and salaries but is less useful for other types of income. Accurate information concerning income from property, agriculture and other self-employment is especially difficult to obtain and should be sought by reference to a lengthy period such as a year or several shorter periods such as one month out of each quarter. The schedule used for the survey in Ceylon provides a detailed table to be used for the estimation of annual income from agriculture, trade and fishing.

81. Most of the schedules examined provide separate questions for different types of income which encourage the full reporting of small amounts of property or other non-wage income which might otherwise be omitted. A comparison between the results

of the sample survey and the tax statistics in the United Kingdom suggests that while the survey estimates exceed those from the tax statistics for wage and salary incomes and profits of individuals and firms, they notably understate the amount of rent, interest and dividends received by persons. In the United States the estimate of net money farm income from the Census Bureau's sample survey amounted to about 80 per cent of the comparable income concept estimated from marketing and other data; the amount of property income derived by combing data from the sample survey and tax statistics (the survey data does not show actual income for incomes over \$10,000) equalled about 60 per cent of the same aggregate in the national income estimate. Another example of the undercoverage of income data obtained from sample surveys is found in the study of household budgets in Ireland where reported expenditures exceeded income-size groups by nearly 25 per cent on the average.

82. The lack of other income totals makes it difficult to assess the undercoverage of income data derived from sample surveys in some of the statistically under-developed countries. It would seem prudent to anticipate some under-reporting of income from property and self-employment. On the other hand, it would often be possible to correct the personal reporting of incomes from small farm holdings by reference to the size of holding, the nature of the cultivation and the terms of land tenure. Similarly, information gathered in surveys limited to working-class families, where wages constitute almost the entire family income, would tend to be fairly accurate. The practice of comparing reported expenditures and reported income in search of apparent discrepancies has been found useful in improving the accuracy of the income data.

83. The extent of errors due to non-reporting is difficult to assess. Several techniques have been used to reduce the extent of non-reporting, but their respective contributions to the accuracy of these studies cannot be fully assessed. One technique is to pay families who co-operate a small sum as was done in the survey of 1952 in Ceylon.^{9/} The West German income survey taken in

^{9/} In general, experience has shown that the offering of rewards to families who co-operate does not always increase the accuracy of the results.

Schleswig-Holstein in 1949, entirely by mail, carried a note to the effect that at the conclusion of the survey a lottery would be held for those returning completed forms and several substantial prizes awarded. Some notion of the extent of non-reporting and incomplete or otherwise unusable schedules may be gained from Table 6.

84. When income data are collected as part of a household budget inquiry they are generally accorded only a subordinate role. Usually household incomes are required for a broad classification of households to display the different patterns of expenditure of the different income groups; and, for this purpose, total expenditures are almost as useful as incomes. In general far more attention must be given in the future than in the past to obtaining more accurate particulars of income at sample inquiries, if the ascertainment of these particulars are regarded by countries as an important objective of the inquiries. Perhaps such inquiries should be divorced from detailed expenditures and confined to incomes, gross expenditures and personal saving.

TABLE 6. COUNTRY EXPERIENCE WITH NON-REPORTING OR UNUSABLE
 SCHEDULES IN SAMPLE SURVEYS

Country	Date of survey	Unit	Number of units selected	Number of units used in survey
Canada	1952	Families	9,000	5,600 ^{a/}
Ceylon	1952	Households	1,100	970
Guatemala	1946	Families	495	179
Ireland	1951-52	Households	6,300	3,700 ^{b/}
Puerto Rico	1941-42	Families	4,999 ^{c/}	2,000 ^{d/}
" "	1941-42	"		2,999 ^{e/}
United Kingdom	1952	Rateable units ^{f/}	100%	75%
" "	1952	Income units	100%	69%

a/ Non-farm families only. In addition, partial returns were received for 750 non-farm families and 1,150 farm families.

b/ Towns and villages only.

c/ Number of families visited.

d/ Complete schedule obtained on first visit.

e/ Condensed schedules obtained on first visit.

f/ Dwellings.

V. CONCLUDING REMARKS

85. The collection of statistics on the distribution of income by size and by other socio-economic characteristics of individuals and families is receiving increasing attention in a number of countries. These statistics complement the various national income aggregates and are directly useful for the analysis of many economic and social problems. Considerable research is being carried out at present into methods of collection and compilation and the usefulness of different concepts and definitions. But, as noted in earlier sections, work in this field is still in its formative stage and present practices and purposes vary widely. In these circumstances, it is considered inadvisable at this time to seek uniformity in the preparation of size distribution statistics by the formulation of positive recommendations. Various suggestions for the improvement of these statistics have however been included in the text. In the absence of standard practices in the presentation of income-size distribution statistics, it would be helpful if countries would support their statistical tables with a full statement of the technical information required for the proper interpretation of the statistics. It is noted with interest that the subject of income size distribution statistics has been among the topics considered at the 1955 and 1957 meetings of the International Association for Research in Income and Wealth.

Appendix I

Specimens of Country Tables Showing Income Size Distributions
Cross-classified by Socio-economic Characteristics

The box-headings and the stubs of selected tables contained in national studies of income distribution are reproduced in the following pages. This information is intended to illustrate the form and detail in which income distribution statistics, cross-classified by socio-economic characteristics of the income unit, are published. These data represent an extension of the information given in Tables 4 and 5 of the report.

Tax statistics: United Kingdom

Source: Inland Revenue, Ninety-fourth Report of the Commissioners for the year ended 31 March, 1951, Cmd. 8436, H.M.S.O., London, 1952.

Table heading: Classification of incomes (before tax) by type of income 1949-50. United Kingdom - all persons

<u>Rows</u>		<u>Column headings</u>	
Range of net income		1. Earned income	
£	£	(a) Profits and professional earnings	No. of cases Amount
135 -	149	(b) Wages, salaries, etc.:	
150 -	199	i. Principal source	" "
200 -	249	ii. Wife's earnings	" "
250 -	299	iii. Other	" "
300 -	349		
350 -	399	(c) Family allowances	" "
400 -	449	(d) Total	" "
450 -	499	2. Investment income:	
500 -	599	(a) Property	" "
600 -	699	(b) Interest and dividends	" "
700 -	799	(c) Total	" "
800 -	899	3. Total gross income	" "
900 -	999	4. Deductions	
1,000 -	1,499	(a) Expenses	
1,500 -	1,999	(b) Interest payable and other charges	" "
2,000 -	2,499	5. Total net income	" "
2,500 -	2,999		
3,000 -	3,999		
4,000 -	4,999		
5,000 -	5,999		
6,000 -	7,999		
8,000 -	9,999		
10,000	11,999		
12,000	14,999		
15,000	19,999		
20,000	24,999		
25,000	29,999		
30,000	39,999		
40,000	49,999		
50,000	74,999		
75,000	99,999		
100,000 and over			

All ranges

Note: Identical tables are also presented for:

- (a) United Kingdom - single males and widowers
- (b) " " - single females and widows
- (c) " " - married persons.

The same four tables are also presented separately for:

- (a) England
- (b) Wales
- (c) Scotland
- (d) Northern Ireland

Tax statistics: Canada

Source: Taxation Statistics, 1953, Department of National Revenue,
 The King's Printer, Ottawa.

Table heading: Table 6; 1951 Taxation Year - Canada; Income Distribution
 of Taxable Persons by Marital Status, Dependents and Sex

<u>Rows</u>		<u>Column headings</u>
Under	\$1,000	1. Taxed as Single - With no dependents.
\$1,000 -	1,100	(a) Males
1,100 -	1,200	i. No. of taxpayers
1,200 -	1,300	ii. Total income
1,300 -	1,400	iii. Total tax
1,400 -	1,500	(b) Females
1,500 -	1,600	i. No. of taxpayers
1,600 -	1,700	ii. Total income
1,700 -	1,800	iii. Total tax
1,800 -	1,900	(c) Total
1,900 -	2,000	i. No. of taxpayers
2,000 -	2,100	ii. Total income
2,100 -	2,200	iii. Total tax
2,200 -	2,300	
2,300 -	2,400	
2,400 -	2,500	
2,500 -	2,600	
2,600 -	2,700	
2,700 -	2,800	
2,800 -	2,900	
2,900 -	3,000	
3,000 -	4,000	
4,000 -	5,000	
5,000 -	6,000	
6,000 -	7,000	
7,000 -	8,000	
8,000 -	9,000	
9,000 -	10,000	
Over 10,000		
Total		

Note: In this table separate distributions are presented for:

- (a) Taxed as single - with no dependents
- (b) " " " - with one or more dependents
- (c) " as married - with no dependents
- (d) " " " - with one dependent
- (e) " " " - with two dependents
- (f) " " " - with three dependents
- (g) " " " - with four dependents
- (h) " " " - with five or more dependents

/...

Tax statistics: Canada

Source: Taxation Statistics, 1953, op. cit.

Table 10, section II, shows separate income distributions for 31 occupational classes^{1/} in the following detail:

<u>Rows</u>	<u>Column heading</u>
Under \$1,000	1. Occupational class
\$1,000 - 1,500	(a) Number
1,500 - 2,000	(b) Income
2,000 - 2,500	(c) Tax
2,500 - 3,000	
3,000 - 3,500	
3,500 - 4,000	
4,000 - 4,500	
4,500 - 5,000	
5,000 - 6,000	
6,000 - 7,000	
7,000 - 8,000	
8,000 - 9,000	
9,000 - 10,000	
10,000 - 15,000	
Over 15,000	
Total	

Footnote 1/ on following page.

Footnote 1/ to preceding page.

1/ The occupational classes being:

(a) Total primary producers:

Farmers, Forestry Operators, Fishermen.

(b) Total professionals:

Accountants, Medical Doctors and Surgeons, Dentists, Lawyers, Consulting Engineers and Architects, Entertainers, Osteopaths, Chiropractors, etc., Nurses, Other Professionals.

(c) Total employees:

Employees of Agricultural Enterprises, Employees of Business Enterprises, Employees of Institutions, Employees of Educational Institutions, Employees of Dominion Government, Employees of Provincial Governments, Employees of Municipal and Smaller Governments, Employees of Private Individuals, Employees of Armed Services, Unclassified Employees.

(d) Salesman:

(e) Total business proprietors:

Sole Proprietors without Employees, Sole Proprietors with Employees, Partners in Business.

(f) Total Financial:

Investment Income Predominates, Pension Income Predominates

(g) Estates

(h) Deceased

(i) Unclassified.

Population census data: Panama

Source: Quinto Censo Nacional de Población y Vivienda, Algunas Características Importantes de la Población de la República, Dirección de Estadística y Censo, Panamá, 1953.

Table heading: Employees of 10 years or more by branch of economic activity and level of monthly salary in the Republic, Census of 1950.

<u>Rows</u>	<u>Column headings</u>
Monthly level of salary: (in Balboas)	Branch of economic activity:
	Total
Republic, total	Agriculture, etc.
Less than 25	Mining, etc.
25 - 49	Manufacturing
50 - 74	Construction
75 - 99	Electricity, gas, etc.
100 -124	Trade
125 -149	Transport, etc.
150 -199	Services
200 -299	Canal zone
300 -499	Activities not well specified.
500 and more	

Population census data: Union of South Africa

Source: Census of Europeans, 6 May, 1941, Report on Structure and
 Income of Families, The Government Printer, Pretoria, 1945.

Table heading: Table 7, Urban Families According to Size and Annual
 Income.

<u>Rows</u>	<u>Column headings</u>
Income per annum	Persons per family
Under £50	2
£ 50 - £ 99	3
£100 - £149	4
£150 - £199	5
£200 - £249	6
£250 - £299	7
£300 - £349	8
£350 - £399	9
£400 +	10
Unknown	11 +
Total	Total

The above data were published separately for the following regions:

- (a) Cape Province
- (b) Natal
- (c) Transvaal
- (d) Orange Free State
- (e) Union

Sample Surveys: Ceylon

Source: Report on the Sample Survey of Ceylon's Consumer Finances,
 Central Bank of Ceylon, Colombo, 1954.

Table heading: Table 19 - Income Receivers - Income Distribution
by Sex, Race and Education.

<u>Rows</u>	<u>Column headings</u>
Income Group of Income-Receiver	1. Sex
Rs. per month	(a) Male
	(b) Female
0 - 25	2. Race
25 - 50	(a) Sinhalese
50 - 75	(i) Kandyan Sinhalese
75 - 100	(ii) Low Country Sinhalese
100 - 125	(b) Tamil
125 - 150	(i) Ceylon Tamil
150 - 175	(ii) Indian Tamil
175 - 200	(c) Others
200 - 250	(i) Moors, Malays
250 - 300	(ii) Others
300 - 350	3. Education
350 - 400	(a) No education
400 - 450	(b) Primary
450 - 500	(c) Secondary
500 - 600	(d) Passed Senior School Certificate
600 - 700	(e) Higher
700 - 800	
800 - 1,000	
1,000 - 1,500	
1,500 and over	
Total	
Median Incomes, Rs.	

Sample Surveys: Norway

Source: Husholdningsregnskaper For Høyere Funksjonaerer,

(Family budget studies for salaried employees in the higher income groups), April 1952-March 1953, Norges Offisielle Statistikk XI. 157, Statistisk Sentralbyra, Oslo, 1954.

Table heading: Incomes and Expenditures per Household, by Size of Family and Income.

<u>Rows</u>	<u>Column headings</u>
Number of households	1. Size of family
Number of consumption units <u>1/</u>	(a) Man and wife
Number of consumption units <u>2/</u>	(b) Man, wife, 1 child
TOTAL INCOME / REDUCTION OF ASSETS	(c) Man, wife, 2 children
TOTAL INCOME	(d) Man, wife, 3 or more children
I Total income from work	2. Total
(a) Husband's fixed earnings	3. Income in kroner per consumption unit
(b) Wife's fixed earnings	(a) 3,560 - 4,999
(c) Etc.	(b) 5,000 - 6,999
II Other income	(c) 7,000 - 9,799
(a) Renting of rooms or apartment	(d) 9,800 and over
(b) Consumption of own products	
(c) Etc.	
III Reduction of assets	
TOTAL EXPENDITURE / INCREASE IN ASSETS	

1/ Converted to adults.

2/ Corrected with regard to visitors and absences.

TOTAL EXPENDITURE

- I Food, total
(137 sub-items)
- II Beverages, total
(18 sub-items)
- III Tobacco
(4 sub-items)
- IV Housing
- V Lighting and fuel
(7 sub-items)
- VI Furniture and other household equipment
(10 sub-items)
- VII House cleaning
(8 sub-items)
- VIII Domestic help
- IX Clothing and footwear
(25 sub-items)
- X to XXV etc., etc., with sub-items for most items.

APPENDIX II

BIBLIOGRAPHY

The following publications have been used in the review of country practices in the preparation of statistics of income distribution. The list is divided into three groups, taxation statistics, population censuses and sample surveys, corresponding to the three types of data collection reviewed.

A. TAX STATISTICS

AUSTRALIA

Finance 1952-53, Bulletin No. 44, Commonwealth Bureau of Census and Statistics, Government Printing Office, Canberra, 1955.

AUSTRIA

Monatsberichte des Osterreichischen, Institutes fur Wirtschaftsforschung, Vienna, 1953.

Statistische Nachrichten, No. 11, November 1954, Osterreichischen Statistischen Zentralamt, Vienna.

BELGIUM

Bulletin de Statistique, (Issues No. 3, March 1955, and No. 1, January 1957), Institut National de Statistique, Brussels.

CANADA

Taxation Statistics, 1951, Department of National Revenue, The King's Printer, Ottawa, Ibidem, 1953, Ottawa.

CEYLON

Statistical Abstract of Ceylon 1954, Department of Census and Statistics, Government Publications Bureau, Colombo, 1954. Ibidem, 1956, Colombo.

CYPRUS

The Incomes of Taxpayers 1950, Statistics Section, Secretariat, Nicosia, 1951.

/...

DENMARK

Ejendoms - og Personbeskatningen I Skattearet 1953/54, (Taxes on Real Property and Persons in the Fiscal Year 1953/54) Statistiske Meddelelser, Copenhagen, 1954. Ibidem, 1955/56, Copenhagen, 1956.

FINLAND

Inkomst - och Förmögenhetsstatistik 19 för år 1952 (Statistics of Income and Property in 1952), Official statistics of Finland, Helsinki, 1955.

Suomen Tilastollinen Vuosikirja, Statistisk Årsbok för Finland, Statistical Yearbook of Finland 1954), Central Statistical Office, Helsinki, 1955.

GERMANY, WESTERN

Wirtschaft und Statistik, Statistisches Bundesamt, Stuttgart, (issues of December 1953, May 1954).

NETHERLANDS

Distribution of Personal Income 1950, Central Bureau of Statistics, The Hague.

NEW ZEALAND

Report on the Income and Income-Tax Statistics of New Zealand, Income Year 1951-52, Census and Statistics Department, Wellington, 1955, Ibidem, 1952-53, Wellington, 1956.

NORWAY

Skattestatistikk for Budsjettaret 1953/54, (Tax Statistics), Norges Offisielle Statistikk XI. 199, Central Bureau of Statistics of Norway, Oslo, 1955. Ibidem 1954/55, Norges Offisielle Statistikk XI 230, Oslo, 1956.

SWEDEN

Statistisk Årsbok för Sverige 1954, (Statistical Abstract of Sweden) No. 41, Central Bureau of Statistics, Stockholm, 1954.

Skattetaxeringarna samt Fördelningen av Inkomst och Förmögenhet Taxeringsaret 1952, Statistiska Centralbyran, Stockholm, 1953. Ibidem, 1954, Stockholm, 1955.

Folkräkningen den 31 December 1945, Statistiska Centralbyran, III:1, Stockholm 1949; VIII:1, Stockholm 1951.

Folkräkningen den 31 December 1950, VII, Stockholm 1956.

UNITED KINGDOM

Inland Revenue, Ninety-fourth Report of the Commissioners, for the year ended 31st March 1951, Cmd. 8436, H.M.S.O., London, January 1952. Ibidem, Ninety-fifth Report, for the year ended 31st March 1952, Cmd. 8726, London, January 1953; Ibidem, Ninety-eighth Report, for the year ended 31st March 1955, Cmd. 9667, London, January 1956.

UNITED STATES

Statistics of Income for 1950, Part 1, United States Treasury Department, Washington D.C., 1954.

Statistics of Income for 1953, Part 1, United States Treasury Department, Washington, D.C., 1956.

B. POPULATION CENSUSES

CANADA

Eighth Census of Canada, 1941, Volume VI, Earnings, Employment and Unemployment of Wage-Earners, Dominion Bureau of Statistics, Ottawa, 1946.

Ninth Census of Canada 1951, Volume V, Labour Force, Earnings and Employment of Wage-Earners, Dominion Bureau of Statistics, Ottawa, 1953.

NEW ZEALAND

Population Census, 1945, Incomes, Volume X, Census and Statistics Department, Wellington, 1952.

PANAMA

Quinto Censo Nacional de Población y Vivienda, 1950, Procedimiento para Cuatro Tabulaciones Básicas de Población, Dirección de Estadística y Censo, Panama, 1951.

Quinto Censo Nacional de Población y Vivienda, Algunas Características Importantes de la Población de la República, Dirección de Estadística y Censo, Panama, 1953.

UNION OF SOUTH AFRICA

Census of Europeans 6th May, 1941, Report on Structure and Income of Families, The Government Printer, Pretoria, 1945.

UNITED STATES

Census of Population 1950, Volume II, Characteristics of the Population, Part I, United States Summary, United States Bureau of the Census, Washington, D.C., 1953.

C. SAMPLE SURVEYS

AUSTRIA

Statistische Nachrichten, 1954, Osterreichischen Statistischen Zentralamt, Vienna.

BRAZIL

Pequisa de Padrao-de-Vida, Sinopse preliminar de resultados, Ministério de Trabalho, Industria e Comércio, Comissao Nacional de Bem-Estar Social, Rio de Janeiro, 1953.

BRITISH WEST INDIES

JAMAICA

Household Expenditure Survey 1953-54, Department of Statistics, Jamaica, B.W.I., 1955.

CANADA

Distribution of Non-farm Incomes in Canada by Size, 1951, Reference Paper No. 52, Dominion Bureau of Statistics, Ottawa, 1954.

CEYLON

Report of the Director of Census and Statistics on the Middle Class Family Budget Inquiry, Sessional paper XVI. - 1950, Department of Census and Statistics, Colombo, August 1950.

Preliminary Report on the Economic Survey of Rural Ceylon, 1950, Department of Census and Statistics, Sessional paper XI-1951, Colombo, July 1951.

Report on the Sample Survey of Ceylon's Consumer Finances, 1953, Central Bank of Ceylon, Colombo, 1954.

COLOMBIA

Las Condiciones Económico-sociales y el Costo de la Vida de la Clase Obrera en la Ciudad de Barranquilla, Suplemento a los números 40 a 42 de Anales de Economía y Estadística, Dirección Nacional de Estadística, Bogotá, 1948.

DENMARK

Family Expenditure Survey, Statistical Department, Copenhagen, March 1956.

ECUADOR

El Ingreso Familiar, su Distribución en las Clases: Obrera, Empleada y Jornalera de la Ciudad de Quito, Instituto de Investigaciones Económicas de la Facultad de Ciencias Económicas de la Universidad Central, August 1955.

GERMANY, WESTERN

Communication from the Statistisches Bundesamt, Wiesbaden-Biebrich, dated 31 July 1952. (Concerns sample survey of personal incomes in Schleswig-Holstein in 1949).

GOLD COAST

Ashanti Household Budget Survey, Office of the Government Statistician, Accra, March 1956.

1954 Akuse Survey of Household Budgets, Statistical and Economic Papers, No. 3, Office of the Government Statistician, Accra, March 1956.

Kumasi Survey of Population and Household Budgets, Statistical and Economic Papers, No. 5, Office of the Government Statistician, March 1956.

Sekondi Takoradi Survey of Population and Household Budgets, 1955, Statistical and Economic Papers, No. 4, Office of the Government Statistician, March 1956.

GUATEMALA

Estudio sobre las Condiciones de Vida de 179 Familias en la Ciudad de Guatemala, Publicaciones de la Dirección General de Estadística, Guatemala, C.A., 1948.

INDIA

N.V. Sovani, D.P. Apte and R.G. Pendse, Poona: A Resurvey, The Changing Pattern of Employment and Earnings, Gokhale Institute of Politics and Economics, Poona, 1956.

IRAQ

Report on the Household Budget Enquiry in the City of Baghdad and its Environs, Ministry of Economics, Principal Bureau of Statistics, Baghdad, 1954.

IRELAND

Household Budget Inquiry 1951-52, Central Statistics Office, Dublin 1954.

JAPAN

Annual Report on the Family Income and Expenditure Survey, 1954, Bureau of Statistics, Tokyo, 1955. Ibidem, 1956, Tokyo, 1957.

/...

KENYA

Report on the European Family Budget Survey, March and June, 1952,
East African Statistical Department, Nairobi, April, 1953.

Earnings of African Labour in November 1947, East African Statistical
Department, Nairobi, May 1948.

Reported Employment and Wages in Kenya, 1954, East African Statistical
Department, Nairobi, October 1955.

NETHERLANDS

National Family Expenditure Investigation, 1950, Central Bureau of
Statistics, The Hague.

De Vordeling van de Gezinsinkomens in Nederland in de Jaren 1949 en 1954,
(The Distribution of Family Incomes in the Netherlands in 1949 and 1954),
Statistische en Econometrische Onderzoekingen, 4e kw. 1956, Central Bureau
of Statistics, The Hague, 1956.

NORWAY

Husholdningsregnskaper (Family Budgets), October 1951 - September 1952,
Norges Offisielle Statistikk XI.128, Statistisk Sentralbyrå, Oslo, 1953.

Husholdningsregnskaper for Høyere Funksjonaerer (Family budget studies for
salaried employees in the higher income groups) April 1952 - March 1953,
Norges Offisielle Statistikk XI.157, Statistisk Sentralbyrå, Oslo, 1954.

PANAMA

Estudio de los Ingresos, Gastos y Costo de la Vida, Ciudad de Panamá -
1952-1953, Dirección de Estadística y Censo, Panamá, 1954.

PERU

Anuario Estadístico del Perú, 1950, Ministerio de Hacienda y Comercio,
Dirección Nacional de Estadística, Lima, 1953.

PHILIPPINES

Survey of Expenditures and Incomes of Low and Middle Class Income Households
in Metropolitan Manila Area, Central Bank of the Philippines, Manila,
November 1953.

The Philippine Statistical Survey of Households, Bulletin, May 1956,
National Economic Council, Manila, January 1957.

PORTUGAL

Inquérito ao Custo de Vida na Cidade do Porto, 1950-51, "Estudos" No. 27, Instituto Nacional de Estatística, Lisbon 1954.

Inquérito ao Custo de Vida na Cidade de Lisboa, 1948-49, "Estudos" No. 23, Instituto Nacional de Estatística, Lisbon, 1953.

PUERTO RICO

Incomes and Expenditures of Wage Earners in Puerto Rico, Bulletin No. 1, Government of Puerto Rico, Department of Labor, 1947.

Survey of Incomes and Expenditures of Wage Earners' Families in Puerto Rico in 1952, Preliminary Releases Nos. 2, 3 and 4, Release No. 6, and Special Releases Nos. 1 and 2, Puerto Rico Department of Labor, San Juan, 1954.
Ibidem, 1953, Preliminary Release No. 5, Puerto Rico Department of Labor, San Juan, 1955.

TURKEY

C.C. Sarc, A Household Budget Enquiry Along Sampling Lines in Istanbul, Institute of Statistics, Istanbul University, Istanbul.

UNION OF SOUTH AFRICA

Survey of Family Expenditures, Department of Census and Statistics, Pretoria, 1955.

UNITED KINGDOM

H.F. Lydall, British Incomes and Savings, Oxford Blackwell, 1955.

Dorothy Cole, "Field Work in Sample Surveys of Household Income and Expenditure" Applied Statistics, Vol. V. No. 1, Royal Statistical Society, London, March 1956.

UNITED STATES

Current Population Reports, Series P-60, No. 9, "Income of Families and Persons in the United States: 1950", United States Department of Commerce, Government Printing Office, Washington.

Federal Reserve Bulletin, August 1950 and subsequent issues, Board of Governors of the Federal Reserve System, Washington.
