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Developments in British Official Statistics

A publication of the Government Statistical Service

Note by the Editor

The aim of *Statistical News* is to provide a comprehensive account of current developments in British official statistics and to help all those who use or would like to use official statistics.

It appears quarterly and every issue contains two or more articles each dealing with a subject in depth. Shorter notes give news of the latest developments in many fields, including international statistics. Some reference is made to other work which, though not carried on by government organisations, is closely related to official statistics. Appointments and other changes in the Government Statistical Service are also given.

A cumulative index provides a permanent and comprehensive guide to developments in all areas of official statistics.

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NOTES ON CURRENT DEVELOPMENTS

Statistics and Economic Theory in the USSR

L. Volodarsky, *First Deputy Chief, Central Statistical Board of the USSR*

We are pleased to include in this issue a summarised translation of an article which first appeared in full in the Soviet journal 'Questions of Economics' No. 6, 1974. A translation of the full article which describes in some detail the development of the Soviet statistical system is available on request from the Central Statistical Office.

The development of Soviet economic science is closely bound up with scientific and practical activities in the field of state statistics. The question implies not only the elaboration of general theoretical propositions but the necessity of quantitative expression of processes and phenomena in the national economy of the country as well. This is required for two important reasons. On the one hand, many theoretical propositions which are set forward in certain fields of economic science should find their concrete confirmation in quantitative measurement of phenomena and processes which take place in the economic and social life of the Soviet society. On the other hand, quantitative expression of processes and phenomena or actual data which characterize the progressive movement of our country are a necessary condition for the development of theory and scientific thought.

Statistical science and practice play an important role in the system of economic sciences. This is determined not only by the fact that statistics give actual data which enable concrete sociological, economic and other conclusions to be drawn, but also by the fact that in the field of statistics it is impossible to do without serious economic developments and conclusions. The theoretical basis for these or other propositions greatly influences the construction of the system of indicators itself, which characterizes different aspects of our activities and their quantitative expression.

It is well known how important for the USSR State Planning Committee is the question of a quantitative expression of the scales, rates and proportions of social production development for a planned period. In state statistics a specially important role is played by the scientifically based quantitative expression of phenomena and processes on the basis of data reported for a definite period of time and which characterize achieved scales, rates and proportions of the development of the country's economics and social life of the Soviet society.

The basic principles of the organization, methodology and methods of collecting, processing and analysing statistical information were comprehensively elaborated by V. I. Lenin during the early years of the Soviet State. These principles preserve their significance to a considerable extent. The major task of the Soviet State statistics is to embrace, by means of its specific system of indicators, the process of large-scale socialist reproduction in all its variety, the links between all branches of social production and the non-productive sphere, and the major developments taking place in the economic and social life of the country.

Actual and planned balances of the national economy are drawn up annually in the USSR. The planned balance of the national economy is designed to link major indicators and targets of the national economy plan to determine optimal proportions in the development of economics which ensure the rise in the efficiency of social production, high rates of economic development and steady growth of the living standards of Soviet people. The actual balance of the national economy is intended to characterize concretely the process and results of the extended socialist reproduction, reveal economic proportions, interrelations and growth rates of social production formed in a given period, as well as their correspondence to the rates and proportions envisaged by the State plan.

The indicators of the actual balance of the national economy are being elaborated not only for the USSR as a whole but for the Union Republics as well. They give detailed and valid information needed for economic analysis of the social production, for the study of trends and regularities of the Soviet economic development.

The important direction in the analysis of the data relating to the balance of the national economy is the study of the processes of distribution and redistribution of social product and national income. The process of the social product reproduction is being studied in two aspects – both as a process of production, distribution and utilization of material wealth and as a process of formation, distribution and utilization of incomes. These two aspects of the social reproduction

process are reflected in two main sections of the balance of national economy – in the balance of production, consumption and accumulation of social product (aggregate material balance) and in the balance of production, distribution and redistribution of social product and national income and their final utilization (aggregate financial balance).

Of great importance are the works on the compilation of the balance of labour resources which characterizes the availability, composition and utilization of labour resources in the country; of the balance of fixed assets comprising the most important part of the productive forces of the country; of the balance of money incomes and expenditures of the population which shows the volume, composition and sources of money incomes of the population, the size and structure of expenditures, and the correspondence of the purchasing fund of the population to the provision of commodities.

An important role in the analysis of social production and the study of inter-branch and inter-regional links is played by the reported inter-branch balance of the production and distribution of products in the national economy of the USSR. Being a component of the balance of the national economy, the reported inter-branch balance makes it possible to get the characteristics of reproduction of social product by material and value composition in a detailed branch breakdown. The reported inter-branch balance for 1972, being elaborated at present, is compiled according to a more extensive programme and on the basis of broader statistical information than two previous inter-branch balances. Its data will be of great importance for studying the process of large-scale reproduction in the Ninth Five-Year Plan and for drawing up the project of the Tenth Five-Year Plan.

In elaborating the inter-branch balance there arise many methodological problems and practical difficulties. Such, for example, are the determination of indicators of import and export of products by Union Republics and economic regions, distribution of trade and transport expenditures by branches of the inter-branch balance, determination of the compensation amount and extent of wear and capital repair of fixed assets by individual branches, etc. The task of scientific and practical workers is further improvement of the methods of elaboration and analysis of the national economy balance and inter-branch balances, and fuller utilization of the available data for more profound study of social production, revealing its efficiency and drawing up measures for further improvement of planned guidance and management of the national economy.

Complicated methodological problems and practical difficulties arise in calculating indicators of the national wealth of the country. In the broad sense national wealth is the whole complex of material resources which are available to the society at a definite moment. It consists of the accumulated products of labour (buildings, installations, machinery and equipment, stocks of raw and other materials, consumer goods, etc.) and natural resources (stocks of agricultural land, forests, reserves of minerals, etc.). But how to determine the value of the total volume of national wealth of the country in the conditions of socialist society where land, forest and other natural resources are the State property and are not the subjects of sale and purchase, or to evaluate in money terms all those natural resources involved in the production process – economic science has not yet given a definitive answer to these questions.

Statistical bodies face great targets in improving demographic projections. Since the change in the number and composition of the population takes place under the influence of birth, mortality and migration, it is necessary to determine the trends of these indicators more exactly in the future. Birth-rate, mortality-rate and migration indicators themselves are, first of all, closely linked with a number of economic, sociological, medical and other factors. Therefore, the solution of the demographic projections improvement problem will depend on how completely and properly these links are determined.

In statistics, combined with the reporting which is the basic form of getting various economic and statistical information about the national economy and living standards of the population, a method of sample surveys is applied on a large scale. Resting upon the theory of probability, this method under its correct way of utilization enables representative information about the phenomena under investigation to be received in a shorter period of time than that of full reporting and with less material expenditure. In this connection it is widely used when it is necessary to have more detailed and urgent information to be utilised in effective tackling of many national economy problems.

The sampling method is applied in studies of demographic, economic and social processes. It is applied also to analyse the utilization of the equipment, the quality of the produce, the reproduction of population and its migration, the consumers' demand, the employment of population, income formation in a family, its time budget and leisure hours arrangement, living conditions, cultural and everyday services, public opinion of a number of social problems and so on. Especially wide application of this method is found in family budget statistics, being one of the components of statistics of the material and cultural living standard of the population. By means of systematic

sampling, out of the total number of families in the country selected for a continuous survey, there are 62 thousand families of wage earners, salaried employees and collective farmers. Apart from that, in order to investigate more thoroughly the living standards once in every five years large scale single-time sample surveys are conducted of the families' composition, living conditions and incomes of the population with a sample of about 0·5 per cent of the total number of families in the country. In 1972 such a survey covered 310 thousand families of wage earners, salaried employees and collective farmers. Due to this, the results of the surveys reflect the formation of family living standard depending on the natural and climatic, national and economic conditions of certain regions.

At present the problem of whether commodity-money relations are in force in socialist economics or not does not exist. However, for the compilation of the balance of national economy and inter-branch balances, for the analysis of the data obtained on their basis and for the construction of the system of indicators necessary to give a comprehensive view of the extended socialist reproduction process, it is not general statements on this question which are important but scientific solution of a number of questions concerning the concrete forms of utilization of commodity-money relations and the action of the law of value to provide for proportions and balances in the development of national economy, improvement of the branch structure and increase in the efficiency of social production.

The case is somewhat similar to the problem of valuation. It is known that the results obtained depend on the valuation of output and on the quantitative expression of this or other phenomena. This, in fact, is essentially important in international comparisons. Thus, in making comparative calculations on a rouble basis there turn out ratios which differ from those calculated on the basis of currencies of other countries. Also important is the question of prices applied for quantitative expression of scales and proportions of social production, for analysis of the branch structure of the national economy. All this demands a scientific solution of the question on the role of price as a factor of redistribution of national income, and on the expression in current prices of socially necessary labour input.

At present in the world there exist two systems of calculations of national income. In capitalist countries the system of national accounts (SNA) is used, according to which national income includes not only incomes arising from the production, transport and distribution of material goods but also those arising from the rendering of services (passenger transport, banking, insurance, education, health, public administration, etc.). In the USSR and other socialist countries (in particular, in the CMEA countries) there operates quite a different system – a system of balance of national economy, constructed in conformity with Marxist-Leninist reproduction theory, according to which the social product and national income are created in the material sphere. The major methodological principles of the compilation of statistical balance of national economy are approved by the Permanent Commission of CMEA on Statistics and are recommended to all CMEA countries for practical application. They are also adopted by the United Nations Statistical Commission and recognised as equal in rights with the SNA system. At present within the bounds of the United Nations Organization there operate already not only the system of national accounts as it was before but two documents – both the system of national accounts and the system of balance of national economy (according to the terminology adopted by the UN Statistical Commission – material product system (MPS)).

Of great importance at the present stage are the problems of population and labour resources. The estimates show that in the Tenth and Eleventh Five-Year Plan periods there will arise considerable difficulties in the field of labour resources both in general and territorial aspects, which is associated with those demographic processes that take place in our country, with the consequences of the war and other phenomena. Hence, the necessity for a profound study of this problem.

For practical activities which are undoubtedly important for the development of science as well, the latter should give clear, though debatable, but precise answers to the major theoretical problems of the development of our socialist economics. Only in this case science is able to ensure the receipt of the required practical effect.

The developing wider use of the input-output approach to economic monitoring and forecasting

Owen Nankivell, *Assistant Director, Central Statistical Office*

This article is based on an address presented under a similar title in February 1975. The address is to appear in full in: Input-Output Research Association, *Medium-Term Dynamic Forecasting: The 1975 London Conference*[1]

History

The use of input-output analysis in official forecasting can be traced back to at least 1962/63, when the National Economic Development Office was adapting the University of Cambridge Applied Economics Department's Social Accounting Matrix (SAM) and using it for its growth studies. The Treasury also were then tentatively using input-output analysis in assessing medium-term trends in public and private income and expenditure. The creation, in 1964, of the Department of Economic Affairs (DEA) with its industrial forecasting and medium-term assessment teams brought these two strands together. After the days of the DEA, input-output based medium-term forecasting initially went to the Ministry of Technology but in 1970 was placed once more alongside macro-economic modelling in the Economic Assessment Divisions of the Treasury. Although active use of that input-output forecasting model ceased in 1972 the continuing development of the Cambridge (SAM) model is being supported financially by the Government and it is likely that, at some date in the future, an updated version will be put to official use.

There were several reasons why only limited practical use could be made of the earlier input-output forecasting model. Given the United Kingdom tradition of macro-economic analysis and demand management, it was not obvious how to incorporate into these the industrially disaggregated results provided by a free-standing input-output model. So the sums of the results for individual industries were always constrained to agree with pre-determined macro-economic inputs into the model. Furthermore, since Whitehall medium-term work concentrated on demand analysis there was less emphasis on the associated basic supply problems – even in work on resource use and availability. The input-output model was therefore never used for the sort of disaggregated analysis of problems which it can do particularly well. In a sense, all this happened because there was no analogous disaggregated model in use to explain the present in terms of the past. This could have validated the forecasting model and provided up-to-date current estimates, suitable to be used as starting points in forecasting. Instead of this, the input-output modellers tried hard to reconcile conflicting recent statistics – as an alternative way of establishing a framework within which to apply the latest, but by then very out-of-date, input-output coefficients.

There are now reasonably firmly based United Kingdom input-output tables for 1954, 1963 and 1968. At the start of 1975, the latest information was represented by a somewhat imperfectly estimated updating of 1968 to 1970.* To-day, the aim of this work remains to speed, adapt and improve United Kingdom data collection and analysis sufficiently to make it practicable to resume both current analysis and forecasting in input-output terms.

Work on past data

The data in an input-output matrix are also building blocks for the three alternative measures of gross domestic product, taken from the income, output and expenditure sides of the national accounts respectively. These three measures, expressed in terms of constant prices, are monitored each quarter and disparities are usually, but not always, explained. Thus aggregate expenditure at constant prices was showing a 1972 III-on-1971 III drop of 0·3 per cent, while output was showing a rise of as much as 3·6 per cent over the same twelve months' period! A task force was set up to look into the reasons for this discrepancy and, in short, in its

*Since then, the April 1975 issue of *Economic Trends* has published a square input-output matrix for thirty four manufacturing and service industries and other input-output tables for 1971. Details for fifty nine industries have now been issued (Business Monitor PA1004, 1971).[2]

report published in the April 1973 issue of *Economic Trends*, found such a detective investigation difficult to conduct in terms of national totals. It promised future checks of output against expenditure at less highly aggregated levels. Since then, this work has been pursued by two routes.

One route has been to examine an industry in detail, in order to identify weak and inconsistent data and treatment. The basic approach here has been to re-examine the available quarterly income, output and expenditure indicators for a particular industry, at Minimum List Heading or Order level, and to examine the consistency in their movements over the last few years. Secondly, in terms of levels as distinct from movements, a discrepancy in figures used in the national accounts, when it is identified within an industry, may be regarded as that industry's positive or negative contribution to the published aggregate residual error for the relevant calendar quarter. In addition, this work provides a chance to review the quality of alternative indicators that are not at present used as primary sources of national accounts totals. The individual industries covered by the recent round of pilot projects were chosen to represent a reasonably wide spread of activities and of data collection methods.

The second route starts from the opposite end, that of macro-economic data, and its use implies a more systematic and intensive attempt to obtain, with their aid, a broad-brush but still disaggregated picture of the economy. This approach will incorporate the lessons of the individual industrial projects as they emerge and will take into account the great amount of departmental work that has long been going on in monitoring industrial data and assessing their policy implications. What the CSO is attempting is the complementary task of reviewing current macro-economic indicators in the light of those industrial ones.

Such a disaggregated approach starting with a conventional macro-economic analysis could gradually be extended by going down to market sectors, commodity groups or individual industries. It has been an important first step here to try to match quarterly demand and supply data promptly: for instance, some major changes in particular constituents of consumer expenditure can be compared with movements in the output of the industries concerned, plus imports, less exports, investment demand etc. It will be an equally interesting second step to compare movements in labour costs per unit of output at the industry level with movements in (say) wholesale, retail and import prices. Further econometric research is needed in this area and the CSO is actively involved in this field.

Input-output simulation model

On the other hand, it would be at least equally natural to employ an input-output framework in the context of this second approach. There are of course formidable difficulties in constructing up-to-date input-output tables and in measuring reliably, in particular, movements in intermediate and stockbuilding demand, in their commodity composition and in distributors' margins. However, the potential usefulness of a good input-output model was brought home vividly early in 1974. The succession of oil crisis, miners' strike and three-day week had by then created an increasingly urgent demand for a framework in which to analyse alternative assumed supply constraints and to explore their demand implications.

Consequently, a crude input-output simulation model was then built as quickly as possible. The preliminary stages consisted of bringing the latest available (1968 or 1970) input-output data on to a 1973 basis at 1970 prices, by allowing for easily identified changes in import coefficients and in certain technical coefficients in the fuel sector and elsewhere. Since 1968, there had for instance been the change-over from town gas to natural gas and certain changes in man-made fibres and chemicals. Imports could now be more reliably classified as principal products of particular industries. A further adaptation was to disaggregate the various refined petroleum products. This was essential for exploring the effects of an oil shortage. Updated commodity classification converters were available from the normal processes of estimation for the national accounts.

The resulting simulation model allowed us to explore, very crudely, the patterns of demand permitted by certain assumed supply constraints and, somewhat less crudely, the supply implications of certain other patterns of demand. The model was crude in that it was static, without a built-in forecasting system and relied entirely on average (not marginal) relationships. In addition, little provision was made for substitution, except for a switch away from steel. As a result, some industries may have been assumed to be somewhat less flexible than, in fact, they are and others more so.

Nevertheless, the usefulness of the model during the crisis is now considered not only to have justified its original construction but also to have warranted its subsequent maintenance. Indeed, we are considering ways of not merely maintaining, improving and developing the model but of establishing it as almost a linch-pin of our disaggregation work. The hope is to use it both to evaluate the work described earlier and to produce an acceptable assessment of the industrial situation as a whole.

Other developments

A number of related developments are coming to fruition in the CSO alongside the more overtly input-output orientated projects.

Much work is going into disaggregated simulation models of the household sector, in order to assess the effects of changes in direct and indirect taxes and in social benefits. We are aiming to relate expenditure by commodity groups to changes in household income, savings and other variables such as those just mentioned. A long-term work programme is therefore investigating the data deficiencies that might undermine the usefulness of these models. This represents another way of testing the consistency of various parts of our information system, in this case the Family Expenditure Survey, against the national accounts.

Another area where we have moved further into handling disaggregated industrial data is that of leading and other cyclical indicators. This work has a long history in America. Our regular analyses of these further economic indicators in *Economic Trends* (3) are a useful complement both to formal econometric analysis and (to some extent) to the details recorded in input-output matrices.

Lastly, the purpose of collecting Government statistics is not simply to produce good figures promptly but also to test hypotheses. For example, the national accounts are more than a statistician's bright idea based on accounting practices. They are largely derived from the concepts of Keynesian economics. Our economic statistics must therefore be regarded as serving the continual monitoring of theory – as helping to show whether our observations fit the theory or not. If they do not, we must check them against the definitions of what the theory requires to have measured. Even if the facts do fit the theory we must remain ready to test whether they might not fit some alternative theory equally well or better.

This means an active role in analysis and forecasting for the Government Statistical Service. Accordingly, in the last two years, a CSO Economic Group chaired by the Deputy Director has regularly monitored the main macro-economic indicators of current activity. It now complements this work with a quarterly review.

Secondly, we are almost bound to make more use of detailed commodity flows or industry sales and purchases, in reconciling our national accounts data. We have already decided that future input-output tables will no longer necessarily be constrained by sacrosanct income, output and expenditure figures from the national accounts – but may be used to revise these three totals.

Finally, our work and plans in various fields of industrial model building and analysis described above are all combining to lead us to look at data quality and analysis in an entirely new way – involving the use of an industrially disaggregated framework. The aim here is to develop a framework both of data and of methods on which to build a set of much-improved forecasting activities; and to see this disaggregated work accepted as a worthy complement to conventional macro-economic analysis.

References

(1) *Medium Term Dynamic Forecasting: The 1975 London Conference* to be published by:
Input-Output Publishing Company,
3 Wyndham Place,
London,
W1H 1AP.

(2) Business Monitor PA1004 *Input-output tables for the United Kingdom 1971* (HMSO. Price £2·00 net).

(3) *Economic Trends* monthly (HMSO. Price £1·15 net).

Concluding remarks

The quality and coverage of United Kingdom economic statistics have been much improved in recent years, in the field of quarterly sales inquiries in particular. However, the Government Statistical Service is far from satisfied to rest on its laurels and we intend all the projects described here to serve the concept of a quality-improving two-way exchange between data gathering and analysis.

Anatomy of a postal survey

By **A. P. Power,** *Senior Principal Agricultural Economist,* and **J. A. Beaumont,** *former Principal Agricultural Economist, Ministry of Agriculture, Fisheries and Food*

Unlike most other countries, the United Kingdom conducts the bulk of its agricultural censuses and surveys by post. A generally high response and reliable results are achieved. This article discusses, as an example, the case history of one postal survey undertaken in the agricultural sector.

During the last quarter of 1971 the Ministry of Agriculture, Fisheries and Food (MAFF) conducted a major, voluntary postal survey among farmers and growers in England and Wales. The purpose of the survey, undertaken at the request of the Committee of Inquiry into Contract Farming, was to measure the incidence and importance of written contracting in agriculture and horticulture in England and Wales and the results were published in the Committee's report [1]. Despite the relative complexity of the questionnaire for use in a postal survey, an overall response of almost 84·5 per cent was obtained – not far short of the 90 per cent which was currently being obtained in the June agricultural census. Thus it was felt that some useful conclusions could be drawn from a review of the organisation, conduct and progress of this survey on contracting.

Survey objectives

In brief, the survey was designed to establish the degree to which farmers, whether owners or tenants, had used written contracts in the course of their business operations during the year ended 31 May 1971. Those who had were asked to specify the commodities contracted for and quantities involved, to state the contract period, and to classify the other party to the contract. They were also asked to indicate the types of contracts they had namely, whether marketing or buying contracts, or contracts involving some delegation of managerial function on the part of the producer. Detailed lists of products and definitions of classifications and contract types were supplied.

The sample

A random sample of ten thousand agricultural and horticultural holdings, stratified by labour-size and farm-type, was drawn from the June, 1971 population of holdings in England and Wales. The universe used for sampling excluded all small (in labour requirement terms) holdings, multiple holdings, and also one hundred holdings which had been used in a pilot survey to test the questionnaire. Small holdings were defined as those requiring less than 275 standard man-days (smd) per annum, where an smd represents eight hours work for an average male worker under average conditions. For certain administrative reasons only 9,933 of the ten thousand holdings selected were actually included in the survey.

Timing and forms

A questionnaire was sent out on Thursday 21 October 1971 to each of the 9,933 holdings in the sample covering all counties in England and Wales. Recipients were asked to complete and return the forms in a pre-paid envelope to MAFF by 5 November 1971. In addition to questions, the form included a short letter from the Secretary of the Committee of Inquiry on Contract Farming explaining the purpose of the survey and seeking the farmers' co-operation. The form itself was printed on official paper, bearing the Ministry's crest; it showed, by example, how the detailed questions about contracts should be completed and was accompanied by a comprehensive product list. Contracts were to be entered in one of the four categories (that is 'marketing', 'buying', 'transferred management' and 'partially transferred management'), and the form included precise definitions of these contract types. (A copy of the questionnaire was published as Appendix 3 of *Contract Farming* Cmnd. 5099 (HMSO 1972)). A reminder form was sent out on 10 November, 1971 to those from whom replies had not been received by that date.

Overall response

A total of 8,388 completed questionnaires had been returned by the closing date, 14 December, 1971. This represented an overall response of 84·45 per cent in just under eight weeks. The response was fairly evenly distributed over the sample as a whole: for no farm-type or holding size-group was it less than 80 per cent. (Tables 1 and 2). This response rate may be

compared to the rates obtained in other, more recent, voluntary surveys undertaken by MAFF:

Survey	*Time*	*Weeks to Closing*	*Remind-ers*	*Response Rate (per cent)*
Contract Farming	October 1971	8	1	84·5
Cereal yields	June 1974(1)	9	1	84
Root, fodder & vege-table crops grown for seed	October 1974(1)	9	1	91
Potato yield	November 1974	7	2	92
Herbage crops grown for seed	December 1974(1)	10	1	87
Irrigation	February 1975	6	1(2)	93

(1) Annual survey
(2) Second reminder was not necessary

Other voluntary agricultural surveys conducted by MAFF include the Egg yields and Cereal stocks surveys. The Egg yields survey is conducted each month, with no producer being approached more than once in any year, and has a general response of about 75 per cent. The Cereal stocks survey spans the 11 month period from September to July with the same holdings participating throughout until stocks become nil, and although responses drop from a very high initial rate the average is in the region of 75–80 per cent.

On examination it can be concluded that the response achieved in the Contract farming survey compares quite favourably with the rates obtained in MAFF's regular postal surveys. Factors which affect response are the object of the survey, its subject matter, the length of the questionnaire, its complexity, the degree of precision required, the range of information requested, the number of reminders, the nature and reputation of the body conducting the survey, the clarity of the instructions and questions, the provision of a pre-paid and addressed reply envelope, the overall impact of the form, and the possibility of some feedback to respondents. Most of these factors are well understood and require no further explanation. It has been MAFF's experience too that regularity of a survey enhances response: if the same group of occupiers receives the same questionnaire at regular intervals the response generally improves.

The high response rates achieved in the Root, fodder and vegetable crops grown for seed, Cereal yields, Potato yield and Irrigation surveys are largely attributable to the relatively straightforward nature of the information sought, and the simplicity and clarity of the forms. In the case of the Potato yield survey, which was the first of its kind undertaken, the use of two reminders was also an important factor. The Irrigation survey is carried out every three years. The regularity of surveying may be an important point in the case of the two Seed enquiries as the forms are likely to go to the same people each year, but in the case of the Cereal yields survey farmers should not be selected more frequently than every other year and then only if they are large cereal growers. In contrast, a Mushroom survey which is undertaken every third year evokes a postal response of only some 65 per cent, but, arrangements are made for non-respondents to be contacted by local officers – resulting in a virtual 100 per cent survey.

It would seem from this that the Contract farming survey was at somewhat of a disadvantage in a number of important respects. The questionnaire, although not excessively long, was fairly complex and sought from the respondents a wide range of very specific and detailed information, by product, about production and sales under contract; it was also accompanied by a long and formidable looking product list. The form, although every effort had been made to make it short and understandable, nevertheless required careful reading particularly with regard to the definitions of the various types of written contract about which information was requested. Again, the survey was a 'one-off' job and consequently the response gained nothing from the advantage of familiarity on the part of respondents. Finally, no special effort was made to boost response by sending out more than one reminder.

It was encouraging, therefore, that the response obtained in the Contract farming survey was high, and comparable to the rates obtained in the Ministry's regular voluntary and generally simpler surveys. This, it is felt, may be attributable to:

(1) The compact yet easily understandable format of of what was essentially a quite complex postal questionnaire.

(2) The examples, incorporated on the form itself, of how the replies to the quantitive questions should be handled.

(3) The linking of the survey to the Ministry of Agriculture, Fisheries and Food (by means of the return address and by the use of an official crest on the form) and to the specially instituted Committee of Inquiry into Contract Farming (by means of the explanatory letter). In this way the goodwill among farmers for the Ministry and the status of the Committee were both tapped.

(4) The direct interest to the farming community of the subject of the survey and the knowledge that the information would be made available to farmers in the Report of the Committee on Contract Farming.

Response by category

Of the 8,388 returns, 6,201 or almost 74 per cent were from holdings with no written contracts and there were 2,187 replies from holdings with written contracts, of which 111 were non-usable, mainly due to the fact that they were incorrectly or insufficiently completed. The exclusion of the spoiled returns, however, did not materially alter the distribution of returns from the contractors. The distribution of replies from both contractors and non-contractors differed significantly from their combined distribution. In particular there would appear to have been a relatively high incidence of non-contracting in the smallest holding size-group – centred mainly on livestock holdings; a relatively high occurence of contracting on pig and poultry and general cropping farms; and, perhaps not surprisingly, some concentration of contractors in the largest holding size-group. These differences reflect basic characteristics of farm business size and types. By their very nature cattle and sheep are more difficult to sell on formal written contract than say fruit, vegetables and crops for which specifications can be more easily drawn up, or than pigs for which contractual systems based on measurable specifications have been in operation for some time. Again, the larger producers are more likely to have the volume necessary for contract selling; smaller businesses are more inclined to sell ungraded products through wholesalers and merchants or, on a non-contractual basis, through producers' groups or co-operatives.

Compared with England at 85 per cent, the response from Wales was 79·4 per cent. This difference was significant, and reflected the greater incidence of the smaller farm businesses in Wales with their concentration on cattle and sheep production.

Replies from contractors and non-contractors

Just over 26 per cent of respondents had written contracts and almost 74 per cent had not. For England the proportion of contractors was 28 per cent, for Wales much lower at only just over 8 per cent, reflecting the comparative importance of written contracting in the two countries. The relative importance of contracts (in terms of numbers of holdings having them) also showed a marked tendency, at national level, to increase with holding size. Among individual counties however there were, as might be expected, many exceptions to this general rule. Contractors and non-contractors were fairly equally distributed as between early and later replies. This was true of both England and Wales, despite some tendency for a slightly higher proportion of contractors among the early replies received for England.

Response over time

The overall time-pattern of returns is given in Table 3. These results, however, are based on the 8,229 forms returned on and before Friday 3 December, 1971. Numbers received reached a peak following the first weekend. The general pattern was one of relatively high receipts on Mondays (following the weekends), Wednesdays and Thursdays, and low receipts on Tuesdays and Fridays. The pattern changed temporarily in the fourth week due to the effect of the reminder which had been sent out on the Wednesday of the third week.

The reminder had a marked effect on the overall rate of response achieved. It is estimated that in this survey an overall response of 71·5 per cent would have been obtained on the original form alone. This was boosted to over 84 per cent with the aid of the reminder form. This calculation is approximate since it was not possible to record exactly the response to the reminder: a high proportion of the original forms received in the period commencing three or four days after the reminder had been sent out was probably in response to the reminder form. It was assumed, therefore, that all 521 original forms received after Tuesday 16 November 1971 (at least four working days following the despatch of the second form) were attributable to the reminder.

Response to the reminder was somewhat more concentrated in time than in the case of the original questionnaire: over 87 per cent of returns on reminder forms had been received within two weeks after their receipt by farmers, with just over 50 per cent received in the first week, compared with 77 per cent and 33 per cent respectively in the case of the original forms.

In both England and Wales there was a marked tendency for the proportion of early replies to increase with holding size, possibly suggesting the greater interest of the larger operators in contracting generally. As already noted, however, there was no marked difference in the proportions of early and late replies received from contractors and non-contractors respectively. It would seem, therefore, that higher earlier response was related more to business size than to actual experience with contracting: possibly reflecting the recognition on the part of the larger producers of the potential usefulness of written contracts, particularly in the context of the larger farm business.

Conclusions

This analysis of the organisation of the 1971 survey of Contract Farming provides information on a number of fronts that would be valuable in the planning of any follow-up survey and which might prove generally useful in the organisation of future voluntary surveys,

whether economic or social, directed towards the rural communities of England and Wales:

1. The response achieved in the 1971 Contract farming survey in England and Wales was comparable to the response obtained in other more recent voluntary postal surveys undertaken by MAFF. Indeed the response was relatively high when account is taken of its comparatively short (eight weeks) duration, the unavoidable complexity of the form, the unfamiliarity of the subject, the degree of detail and precision requested and the fact that only one reminder was given.

2. The success of the survey can be considered as being due in part to the design of the form and the linking of the inquiry to two official bodies – one with considerable goodwill in the farming community, the other with a special status. More likely, however, it was the direct interest to farmers of the subject matter of the survey and the knowledge that the results would subsequently be made available to them that produced the good response.

3. The differences in response from different types of farming and different areas generally reflected differences in the size of business and the suitability for contracting of the products produced. Hence the larger producers and those engaged in the more easily specifiable commodities tended to conduct a larger proportion of their business on written contract. These differences are true for both England and Wales.

4. The bigger producers, whether or not they had contracts, tended to reply earlier suggesting, possibly, a greater interest on their part in contracting generally and a recognition of its potential usefulness particularly to the larger farm businesses.

5. The reminder had a marked effect on the overall response rate boosting it, as far as could be determined, from 71·5 per cent to over 84 per cent. Also the replies to the reminder came in somewhat more rapidly than those to the original form.

Reference

(1) *Contract Farming: Report of the Committee of Inquiry on Contract Farming* Cmnd 5099 (HMSO October 1972) (Price £1·00 net).

APPENDIX

Table 1 – Response by farm type[a]

Farm type	*Overall response per cent*
Dairying	80·4
Livestock: cattle & cattle and sheep	80·3
Livestock: mainly sheep	82·4
Mainly poultry	87·8
Pigs and poultry	90·9
Cereals	84·2
General cropping	86·3
Predominantly vegetables	83·6
Predominantly fruit	96·5
General horticulture	85·0
Mixed	85·4
TOTAL	84·45[b]

Table 2 – Response by holding size[a]

Holding size-group (by smd)	*Response per cent*
275–1199	82·8
1200–2399	85·0
2400+	86·5
ALL	84·45[b]

Table 3 – Daily returns – All forms[c]

	M	*T*	*W*	*Th*	*F*	*Weekly Totals*
Week 1		95	607	882	625	2209
Week 2	921	412	473	372	272	2450
Week 3	485	158	211[d]	149	128	1131
Week 4	204	175	396	336	254	1365
Week 5	222	256	121	97	101	797
Week 6	108	34	57	45	33	277
Daily totals	1940	1130	1865	1881	1413	8229

a) Approximate rates, since actual returns are related to chosen sample numbers: the chosen sample contained ten thousand holdings of which 67 were not used for various reasons. Records are not available to show adjustment of 'chosen sample' figures to numbers of forma actually sent out by farm type category.

b) The exact response rate.

c) Questionnaires were sent out on Thursday 21 October 1971; first replies received on Tuesday 26 October.

d) Reminder forms sent out on Wednesday 10 November 1971 and all replies received on, and subsequent to, the following Wednesday were taken to be in response to the reminder.

The deployment of staff in the Government Statistical Service

J. C. Pite, *Statistician, Central Statistical Office*

One of the tasks of the Statistical Programme Development Unit in the Central Statistical Office (CSO) has been to collect and analyse data on the work of the Government Statistical Service (GSS) each year as a basis for observing trends in the allocation of statistical staff resources and considering the shape of future developments. This is part of the process of moving towards a more integrated development of the overall statistical programme, as envisaged by Sir Claus Moser in his article in the first issue of *Statistical News* (May 1968).The present article summarises the results of the six annual inquiries into the deployment of staff undertaken so far by the Unit.

What is the GSS? Broadly it is the six thousand or so people in the statistical agencies, like the CSO and Business Statistics Office (BSO), and statistics divisions of central government departments. In practice it is not so clear cut as all that, its exact boundaries are hard to define and some fairly arbitrary lines have to be drawn to achieve consistency of treatment. For example, in some departments, particularly the Department of Industry, there are mixed statistics and economics divisions. The practice here is to count as GSS all staff of the branches which are headed by Chief Statisticians. The Social Survey Division of the Office of Population Censuses and Surveys (OPCS) is included, although from some points of view it is separate from the GSS.

The staff of computing divisions and branches in the wholly statistical agencies are automatically included. Where such staff are controlled by a Director of Statistics, but only partly occupied with statistical work, then only that part of their time is counted. All other computing staff are completely excluded even if some of their work is related to the GSS. Similarly excluded is the time of other non-statistics division staff which may be devoted to the collection and compilation of statistical information, for example as part of an administrative process, even though the information may eventually be used by the GSS. As the magnitude of such work varies from department to department, depending on the internal organisation and functions of the department, the staff resources data must be treated with caution in comparing the statistical work of different departments or in making international comparisons. In general, however, the data are suitable for comparison over time. One very substantial element of statistical staff time that is omitted is that of the field staff of the Social Survey Division who, although working on a continuing basis are not considered regular employees: the time devoted to the collection of retail prices data by the staff of the local offices of the Department of Employment is also excluded.

The annual inquiries ask each relevant statistics unit to provide information on the number of staff-in-post on 1 September and give details on the proportions of their time over the previous twelve months that each member of their staff has been engaged on different work topics; usually the minimum unit is a fifth of a year. The returns identify separately staff in the different Civil Service grades. Data in respect of the numbers of staff-in-post on 1 September 1971, obtained from the inquiry for 1970/71, were published as Tables 1 and 2 of the appendix to the article on 'Staffing in the Government Statistical Service' by Sir Claus Moser in the *Journal of the Royal Statistical Society Series A*, volume 136 Part 1, 1973.

Staff in post

The staff employed in the GSS numbered 5,123 on 1 September 1969, when the first of these inquiries was undertaken, and had increased to 6,346 by 1 September 1971, largely as a result of the staff requirements for the analysis of the results of the 1971 population census. On 1 September 1974 they numbered 6,267. (The fourth report from the Estimates Committee for 1966–67 gave the numbers employed in the Government Statistical Services on 1 January 1966 as 4,356). Table A gives summary data for the six years 1969 to 1974 both for all staff and for the Statistician Group. The numbers are analysed in terms of the type of work carried out by their departments as at 1 September 1974 (and as defined in Annex A).

GSS – Staff in post, by type of department

Table A

Number at 1 September

Type of Department	*1969*	*1970*	*1971*	*1972*	*1973*	*1974*
All staff	5,123	5,403	6,346	6,367	6,218	6,267
CSO	178	173	175	179	199	216
Social Depts	1,314	1,379	2,233	2,075	1,828	1,730
Socio-Economic Depts	835	877	898	826	830	894
Economic Depts	2,464	2,613	2,709	2,909	2,989	3,030
Defence	302	330	299	345	340	365
Overseas aid	30	31	32	33	32	32
Statistician Group (Including Higher Directing Staff)	258	276	321	358	390	421
CSO	43	45	46	49	56	65
Social Depts	51	58	68	79	94	102
Socio-Economic Depts	45	55	62	78	83	94
Economic Depts	97	93	117	115	120	125
Defence	18	20	22	31	30	28
Overseas aid	4	5	6	6	7	7

The growth in membership of the Statistician Group within the GSS, averaging thirty three a year since 1969, has occurred more in the social and socio-economic than in the economic types of department although the latter still contain the largest group of statisticians. By September 1974, 30 per cent only of the Group worked in economic departments compared with 38 per cent in September 1969 whilst social departments employed 24 per cent compared with 20 per cent, and socio-economic departments employed 22 per cent compared with 17 per cent: the CSO's share decreased to 15 from 17 per cent in the same period. There are also some members of the Statistician Group working outside the boundaries of the GSS, for example on overseas secondment or within departmental divisions not under the immediate control of a director of statistics; these people are not included in any of the figures in this article.

Deployment of staff time

In all these analyses of staff time deployed on the work of the GSS, each person's activities have been allocated to one or more of the topics in the subject fields that are listed, and grouped, in Annex B. This list itself is a summary only of the topics covered by the activities of the GSS but, should more detail be required concerning a particular topic, the returns from the individual branches of statistics divisions can provide this to the central management of the GSS. Up to now the analysis has been one dimensional and has not analysed the statistical function – collection of data, compilation of tables, analysis and interpretation of data, statistical research, staff administration, etc, on which members of the GSS are engaged. The work of the Higher Directing Staff is also not analysed by topic and so is excluded from the remaining discussion. Summary data, by five topic groups and showing Statistician Group time separately, for the six years 1968/69 to 1973/74, are given in Table B below. A more detailed analysis, identifying eighteen topics, over the six years is given in Table C. This also identifies subtotals for the Statistician Group in 1968/69 and 1973/74 and for the 'other professional staff' working within the GSS in 1973/74.

GSS – Deployment of staff, by topic group

Table B

Man-years

Topic-group	*1968/69*	*1969/70*	*1970/71*	*1971/72*	*1972/73*	*1973/74*
Total staff, excluding Higher Directing staff, all topics	5,046	5,317	5,637	6,566	6,443	6,094
of which:						
Social topics	1,365	1,450	1,711	2,441	2,189	1,796
Socio-economic topics	526	550	551	510	512	534
Economic topics	2,528	2,630	2,643	2,939	2,992	2,993
Defence	300	314	284	318	332	343
Other topics	327	373	448	358	418	428
Total: Statistician Group only –	224	241	288	326	353	374
of which:						
Social topics	51	60	75	85	93	106
Socio-economic topics	34	36	32	39	41	48
Economic topics	107	115	138	148	159	159
Defence	17	16	22	28	30	30
Other topics	15	14	21	26	30	31

Over the six year period as a whole, staff resources deployed in the GSS increased by an average of nearly 4 per cent a year but, for members of the Statistician Group, the average increase was nearly 11 per cent a year. Statistical work on social topics showed the fastest rates of growth, of 5·6 per cent a year for all staff and of 15·8 per cent a year for the Statistician Group members. On economic topics, the rates of growth were 3·4 per cent and 8·3 per cent and on socio-economic topics the rates were 0·3 per cent and 7·1 per cent a year, respectively. If the more detailed topics shown in Table C are considered, the average increases in deployment of members of the Statistician Group were greatest, within the social topics, for work on population and vital statistics (18·5 per cent a year), on social conditions (15·2 per cent a year) and on education 13·4 per cent a year) but also, within economic topics, on distributive trades and services (14·9 per cent a year). The average increases were least for work on external trade (2·4 per cent a year), on agriculture (3·1 per cent a year) and on labour and manpower (6·1 per cent a year), in all of which areas the main statistical series have been well established for some years.

The increasing professional content of the work of the GSS, which has already been indicated, is shown more clearly when the changes in the Statistician Group contribution to different subject topics are compared over time. In 1973/74, members of the Group accounted for 6·1 per cent of the man-years deployed by the whole of the GSS compared with 4·4 per cent in 1968/69, an increase of about 40 per cent. If the work of the 'other professional' staff in the GSS is added to that of the members of the Statistician Group, these proportions become 9·5 per cent and 6·6 per cent respectively; this is also an increase of 40 per cent in professional content over the six years. However, the proportions varied considerably for work on different subject topics in 1973/74 and were as follows, the 1968/69 proportions being shown in brackets:

Statistician Group share of total staff deployed

per cent

National income, financial statistics, balance of payments	15·5 (10·3)
Transport and communications statistics	14·5 (8·2)
Education statistics	13·4 (9·8)
Defence statistics	8·7 (5·7)
Labour and Manpower statistics	7·8 (6·1)
. . . . .	
Population and vital statistics	3·3 (2·2)
Distribution industries and services statistics	2·5 (1·9)
External trade statistics	0·8 (1·0)

The deployment data are also analysed by department and grade of staff and, from this, it is possible to combine data on the staff resources of the statistics divisions, whose main function is data collection, separately from those of statistics divisions whose main function is analysis and interpretation. The data-collecting units – OPCS and the General Register Office for Scotland, the BSO and Customs and Excise Statistical Office – increased their total staff deployment from 2,232 to 3,260 man-years between 1968/69 and 1973/74, or at the rate of 7·9 per cent a year. Total staff deployment in the remaining statistics divisions of the GSS increased by twenty man-years only, from 2,814 to 2,834 man-years over the same period, although it totalled 2,925 man-years in 1970/71. The reduction since 1970/71 has been due in part to the transfer of

work to the BSO. However the deployment of the members of the Statistician Group as between the data-collecting and the other statistics divisions shows a different pattern. In the data-collecting units, the increase was thirty two man-years to a total of forty nine man-years in 1973/74, but members of the Group only accounted for 1·5 per cent of staff time even then, whilst in the 'other' statistics divisions the increase was a hundred and eighteen man-years to three hundred and twenty five man-years in 1973/74, when they accounted for 11·5 per cent, as against 7·4 per cent of total staff time in 1968/69. By 1973/74 the statisticians working in the data-collecting units accounted for 13 per cent of statisticians' time in the GSS as a whole whereas, in 1968/69, only 7·6 per cent of statisticians' time was so deployed.

Government Statistical Service – Deployment of staff[1] analysis by topic

Table C — *1968/69 to 1973/74[2]*

Man-years

Topic[3]	*1968/69*		*1969/70*	*1970/71*	*1971/72*	*1972/73*	*1973/74*		
	Total	*Statistician Group*(4)	*Total*	*Total*	*Total*	*Total*	*Total*	*Statistician Group*	*Other professional*(5)
Total, all topics	5,046	224	5,317	5,637	6,566	6,443	6,094	374	206
Social topics, total	1,365	51	1,450	1,711	2,441	2,189	1,796	106	153
Population and vital statistics	544	12	596	854	1,514	1,198	847	28	5
Social conditions	739	31	759	758	818	882	837	63	147
Education	82	8	95	99	109	109	112	15	1
Socio-economic topics, total	526	34	550	551	510	512	534	48	6
Labour and manpower	473	29	510	522	471	481	501	39	6
Other	53	5	40	29	39	31	33	9	–
Economic topics, total	2,528	107	2,630	2,643	2,939	2,992	2,993	159	24
Agriculture industry etc	222	6	232	225	203	204	192	7	5
Production industries	642	33	634	662	680	709	723	45	10
Distribution and services	162	3	177	182	257	287	243	6	–
Transport and communications	147	12	160	156	112	116	117	17	–
Prices	129	2	126	116	96	91	87	4	1
National income, UK finance and economic indicators	285	31	351	350	366	345	352	55	7
External trade	829	8	838	847	1,113	1,129	1,173	9	1
Balance of payments and international aid	112	12	112	105	112	111	106	16	–
Defence staff, total	300	17	314	284	318	332	343	30	16
Other topics, total	327	15	373	448	358	418	428	31	7
Classifications, registers and other	151	12	167	172	142	166	188	12	1
Common services and computing	100	3	134	159	82	103	79	4	2
Management and organisation of GSS etc	48	–	46	70	99	116	132	12	4
International comparisons etc	28	–	26	47	35	33	29	3	–

(1) Excluding Higher Directing Staff at Under Secretary level and above.

(2) 12 months periods ending 31 August.

(3) For a more detailed explanation of the topic classification see Annex B.

(4) Deployment of 'other professionals' in 1969 not known but thought to have been between 100 and 120 man-years, of which 97 in Social Survey Officer class and 5 Medical Statisticians.

(5) Social Survey Officers, Medical Statisticians, Economists, Scientific Officers and Research Officers.

ANNEX A

Grouping of Departments
(as at 1 September 1974)

Group	*Department*
Social departments:	Department of Education and Science
	Scottish Education Department
	Department of Health and Social Security
	Home Office
	Scottish Home and Health Department
	Lord Chancellor's Office
	Office of Population Censuses and Surveys
	General Register Office, Scotland
	Scottish Office (Central Services)
Socio-economic departments:	Civil Service Department
	Scottish Development Department
	Department of Employment
	Department of the Environment
	Welsh Office
Economic Departments:	Ministry of Agriculture, Fisheries and Food
	Department of Agriculture and Fisheries for Scotland
	Customs and Excise
	Scottish Economic Planning Department (Regional Development Division)
	Department of Energy
	Board of Inland Revenue
	Department of Industry
	Business Statistics Office
	Her Majesty's Treasury

ANNEX B

Classification used for Government Statistical Service activities

Social topics

Population and vital statistics
Including: Population, marital condition, births, marriages, fertility, deaths, migration.

Social conditions
Including: Social services, social security, health, housing, justice and crime, leisure, family expenditure survey, national food survey, system of social and demographic statistics.

Education
Including: Schools, universities, awards.

Socio-economic topics

Labour and manpower
Including: Working population, unemployment, vacancies filled and unfilled, average earnings and hours worked, indices of wage rates and normal working week, highly qualified manpower (including manpower employed on research and development).

Other socio-economic
Including: Land, local government, regional, local and environmental planning.

Economic topics

Industry statistics
Agriculture, horticulture, forestry and fishing.
Production industries:
Including: Censuses of production, fuel and power, iron and steel, industrial materials, building and construction, manufactured goods, mining and quarrying, electricity, gas, water.
Distributive and service trades, census of distribution.
Transport and communications.

Prices
Including: Index of retail prices, wholesale prices, agricultural and livestock prices, tramp shipping freights.

United Kingdom finance
Including: Banking, credit, hire purchase, insurance, money supply, interest rates.

National income and economic indicators
Including: National income and expenditure, models of the economy, models of sectors of the economy, index of industrial production, R & D expenditure, investment intentions, input-output, central government and local authority finance, taxation, personal sector finance.

Overseas

External trade
Including: Index numbers of import and export volume and unit values.

Balance of payments and other international statistics
Including: External liabilities and claims, invisibles, United Kingdom government economic aid, foreign exchange rates.

Defence

Other topics
Classifications and registers.
Other statistical work not elsewhere specified.
Common services and computing not elsewhere specified.
Management and organisation of the Government Statistical Service, publications and information.
International comparisons and work for international organisations.

Estimating the characteristics of non-respondents in the General Household Survey[1]

R. Barnes, *Principal Social Survey Officer and* **F. Birch,** *Senior Social Survey Officer, Social Survey Divison, Office of Population Censuses and Surveys*

The General Household Survey (GHS) is designed to provide a continuous measure of changes in the circumstances of households, and a means of examining the inter-relationships of fields such as housing, health, employment and education. In any survey that relies upon the voluntary co-operation of individuals there will inevitably be a proportion of the sample who do not respond. The problem that they cause, simply and obviously, is that precisely because they do not respond normally little is known of the characteristics of non-responders, and correspondingly little is known of the extent to which they may distort the representativeness of the co-operating part of the sample from which the survey's data is obtained. The sample of households with whom interviews are conducted on the GHS is of the order of thirteen thousand a year, and there are another two thousand to two thousand five hundred who refuse to be interviewed or cannot be contacted.

A study has now been undertaken to examine the nature of non-response in the General Household Survey (GHS) and to establish whether any bias is introduced into its results by a failure to interview households representing about 15 per cent of the total eligible sample.

The fact that Social Survey and the Census Office are now part of the same organisation offered an opportunity to do this by examining 1971 Census data for those households that had been selected for the GHS sample in the second quarter of 1971 and comparing the characteristics of those who had responded to the survey with the characteristics of those who had not.

For such an exercise to be relevant to the GHS the comparison needed to be limited to those variables where it could be shown that the Census and the Survey were essentially measuring the same thing. It has to be borne in mind that a largely self-enumerating Census and a survey conducted on a much smaller scale by highly trained interviewers using a detailed questionnaire are unlikely always to produce completely comparable data. For this reason it was necessary as a first step to establish those areas covered by the two sources where agreement was sufficiently close to ensure that the Census could be safely used as a basis for comparison. This was done by comparing the Survey data for the responding households with the Census data for the same households (principally because of the need to preserve the confidentiality of the data sets, the comparisons were made for aggregate data and not on a one-for-one basis).

In all, thirty three major variables were examined and these were subsequently broken down into two hundred and fifty two subgroups, covering a range of subject areas including housing circumstances, demographic characteristics, migration, employment, socio-economic grouping and educational qualifications. Of the total of two hundred and fifty two subgroups of variables, the absolute percentage differences between the Census and the Survey were less than 1 per cent for two hundred and ten of them. For these items it was then possible to take the second step of comparing non-responding households with responding ones.

Since the primary purpose of the project was to establish the extent of any bias introduced into GHS data by non-response, it was necessary to test non-response for significance. This was done by first testing the distribution of each major variable (tenure, age, working status, etc.) as a whole for significance, using Chi Squared, and where significance was established this was followed by the z test for the standard error of the difference beween the proportions of each pair of items, response and non-response. Because of small numbers, some of the two hundred and ten subgroups were collapsed into broad categories, and this reduced the number of items to one hundred and eighty five.

1) This article is an abridged version of a more detailed paper which is available on request from the authors.

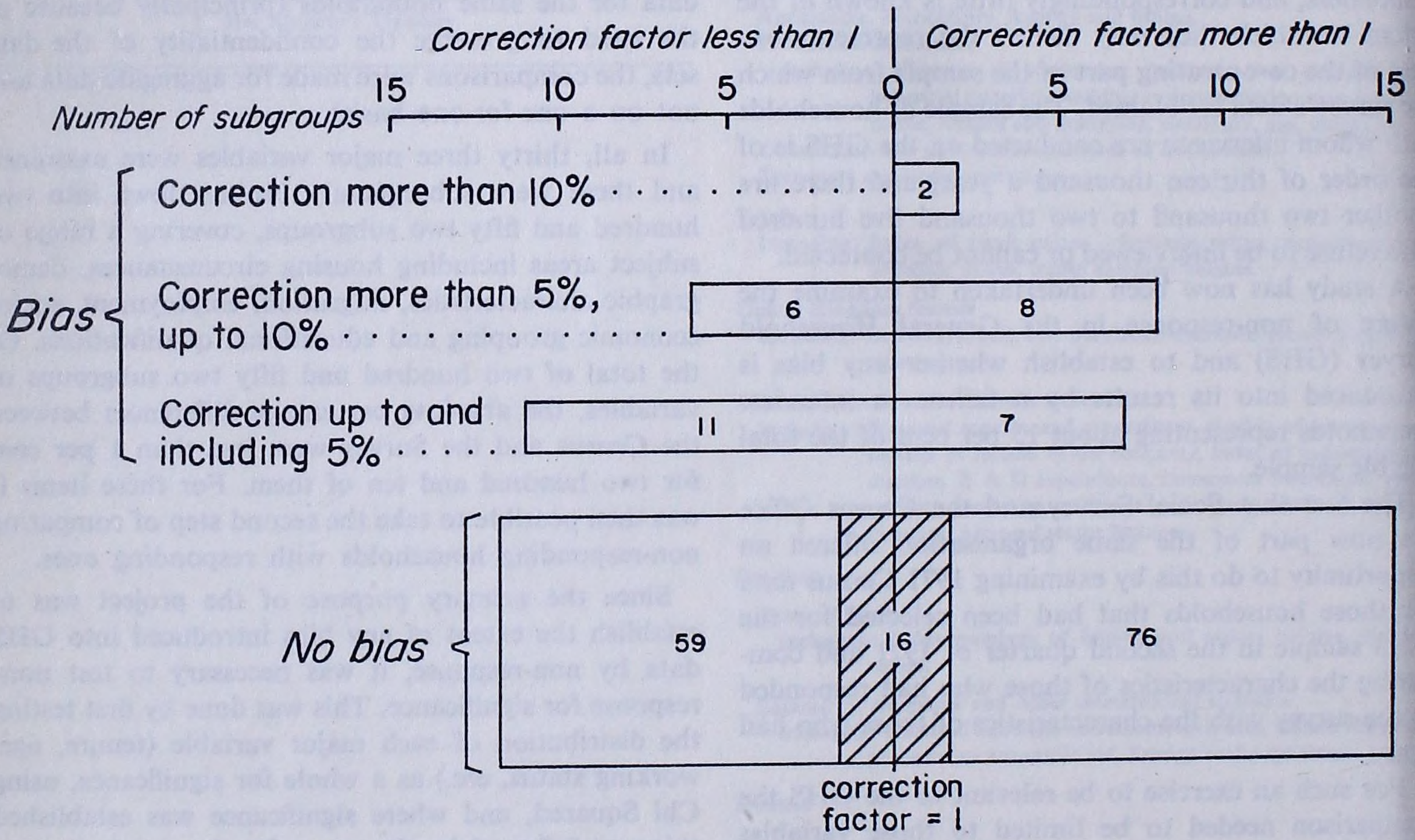
The chart shows that of these, only thirty four were found with statistically significant high or low non-response. Over half of these thirty four items with non-response bias required a correction of less than 5 per cent and only two required a correction of more than 10 per cent. Correction factors to adjust GHS data for non-response were calculated by using the ratio of the total eligible sample to the total interviewed population in co-operating households. The more these correction factors depart from unity, the bigger the effect of non-response. The table lists the variables and subgroups where bias was found to occur; the correction factors indicate the size and direction of the bias for each item.

From the table it can be seen that the predominant characteristic of the seventeen over-represented subgroups was age, in relation to young children of both sexes and young male heads of household. Age was also the chief characteristic of the seventeen under-represented groups, although here it related mainly to older people, particularly men. One-person households also had a high rate of non-response, mainly due to non-contact. The two groups with the highest levels of significant non-response were single male heads of household and non-professional self-employed household heads.

As well as establishing which variables appeared to be affected by non-response to any important extent, it is also interesting to note those which did not appear to be so affected. These included accommodation variables such as rooms, density of occupation, and availability of bath and WC; car ownership; employment variables such as working status, hours of work, and all but one socio-economic group; and qualifications.

What of the practical uses of the information obtained from the non-response analysis? It seems clear that particular care is needed in presenting tables dealing with one-person households and middle-aged and elderly men, who were under-represented in the GHS, and with young children and large households, who were over-represented. This is of special relevance

RANGE OF NON-RESPONSE BIAS



Number of subgroups with bias 34
Number of subgroups without bias 151

Total number of subgroups examined . . . 185

to data on sickness rates, which are strongly affected by age and sex. (For practical purposes it may be preferable to combine some of the categories examined separately here, such as age and socio-economic groups, or to use derived variables).

However there are two reasons why the application of the results of this study should be viewed cautiously. Firstly, it must be stressed that the study related to one survey at one particular point in time. Other studies may show different facets of non-response, as may the GHS at other points of time.

Secondly, the study was an attempt to give some insight into the nature of non-response. It did *not* set out to provide a means of adjusting survey estimates for all sources of survey error. Indeed, although what have been termed 'correction factors' were calculated, these were intended primarily as a convenient device to measure the extent and direction of bias caused by non-response. Even if they were to be used for practical purposes they obviously would take no account of any of the other sources of error, which may possibly operate in opposite directions from non-response error and so serve to offset it.

Notwithstanding these cautions the results can be deemed to be encouraging from a survey point of view. The overall impression left by this study is that non-response bias was limited to comparatively few variables, and even where it did exist it was on the whole of a fairly small order.

Non-response bias[1]

Variable	*Subgroup*	*Correction factor*
Tenure	Owner occupiers	1·02
Household size	1 person	1·05
	4 persons	0·96
	6 or more persons	0·93
Household type	Individual under 60	1·09
	Small family	0·94
	Large family	0·96
Age of males	0–4	0·94
	5–9	0·96
	30–34	0·95
	50–54	1·06
	55–59	1·06
	60–64	1·08
	70–79	1·10
Age of females	5–9	0·93
	25–29	0·95
	45–49	1·05
	55–59	1·06
Age of male heads of household	25–29	0·93
	30–34	0·94
	60–64	1·06
	70–79	1·09
Marital status of males	Single	0·98
	Married	1·01
Marital status of male heads of household	Single	1·16
	Married	0·99
Relationship of males to head of household	Child	0·97
Country of birth of those aged 15+	England	1·01
	Scotland	0·96
Migration of individuals	5-year movers	0·98
	5-year non-movers	1·01
Migration of heads of household	5-year movers	0·98
	5-year non-movers	1·01
Socio-economic group of heads of household (incl. inactive)	Own account non-professional workers	1·12

(1) Limited to categories with good concordance between GHS and Census.

Ask a silly question!

P. W. Brierley, *Statistician, Survey Control Unit*

'How old was your baby when it arrived?' was a genuine question in a survey undertaken a few years ago, and it illustrates the constant need for care by even the most experienced researchers. To be fair, in this instance the context made the meaning clear as the preceding question was 'Did the free sample of baby milk arrive through the post?'

The need for care and thought was the central theme of the Seminar and Exhibition held under the title 'Ask a Silly Question' at the Scientific Societies' Lecture Theatre on 10 June 1975, and organised by the Survey Control Unit of the Central Statistical Office. The purpose of the day was to provoke a more imaginative approach to questionnaire design, and it was attended by some two hundred people from a wide variety of backgrounds. About one-third came from the Government Statistical Service (GSS), and another third from other parts of the government, many of whom had had prior contact with the Survey Control Unit. The remaining third were from local authorities, market and other research associations, academic institutions, and businesses. Whilst the occasion had primarily been arranged for members of the GSS, the attendance was deliberately selected so that a representative cross-section of those interested in the subject were present in order to facilitate exchanges of experience.

The seminar

Sir Claus Moser, Directer of the Central Statistical Office and Head of the GSS, in his introductory remarks emphasised the importance of form design for government statisticians as so much information essential to their work had to be obtained through this medium.

The first speaker, Roger Jowell, founder and Co-Director of Social and Community Planning Research, discussed those actions which make members of the public more willing to respond to postal enquiries. He suggested it was vital for the researcher:

> To indicate to potential respondents the importance attached to the study by the originator, so that, for example, a postal form does not look like an ordinary circular.
>
> To make a determined effort to persuade each respondent of the importance of their individual co-operation. Reminders should be sent out to indicate a sense of urgency when response was observed to be flagging.
>
> To communicate the importance of a quick reply. Whilst explicit deadlines for the return of forms should usually be avoided, the heart-beat of the researcher's intense interest in the subject should nevertheless be clearly brought out.

He concluded by questioning certain myths of postal surveys. For example, it was not necessarily true that the shorter the questionnaire the better; some forms can be so short as to appear to trivialise the research. Finally, he suggested that if only a derisory response rate had been achieved it was better to tear the whole study up, and this was clarified in the subsequent discussion by references to response bias.

Peter Menneer, a Director of British Market Research Bureau Ltd., spoke about some of the pitfalls of postal survey questions, such as the example of ambiguity given above. The logic of the following question from the Census of Population was superb, but its communication was evidently doubtful as his wife had not been very happy to write 'not ended' in response to: 'For women under 60 who are married, widowed or divorced: (a) Write the month and year of marriage (the first marriage if married more than once); (b) If the first marriage has ended (by the husband's death or divorce) write the month and year when it ended. If not ended, write *Not ended*'. Another pitfall was the use of a meaningless concept, as for example in 'To what extent would you consider peanut butter as an alternative to jam?', or using convoluted questions like 'If the best way the Government could give extra help with housing for the community was by using a means test, would you then say help should be given with or without a means test?' Yet other pitfalls included the use of double negatives, two questions in one, colloquialisms, hypothetical and embarrassing questions. He concluded by indicating that the notes given to aid respondents in completion require just as careful scrutiny as the questions themselves.

Nicholas Bateson, of the Social Survey Division of the Office of Population Censuses and Surveys, spoke on the narrative aspects of good questionnaire design

under the title 'The Questioner's Craft', and gave eight guidelines as exegesis of the principle that 'the questionnaire must make good sense to the informant and that it should not be too difficult for him to answer':

The question must use words which are familiar to the sampled population.

The question must not be ambiguous.

The question should be as short and crisp as possible within the limits of the need to obtain analysable material of a certain kind.

The question must ask one thing at a time.

The question should not be framed in the negative.

Many informants prefer to think about particular things rather than about general concepts.

The question should not be too broad.

A question requiring detailed recall may not get accurate answers and may only confuse informants.

He went on to point out the dangers of creating response bias through poorly worded questions. Respondents have a latent tendency to respond in an inaccurate way, for example, in often agreeing with an authoritative figure (or government), or giving socially acceptable answers, or ones which are self-enhancing. 'What do you think is the best age to get married?' does not allow adequate answers from those who are opposed to marriage. He stressed also the very great importance of pretesting questions, however few they may be, in order to help recognize wording which could lead to potential bias or misunderstanding.

John Saville and Gerry Watt of the Graphic Design Division of Her Majesty's Stationery Office spoke after lunch about the visual aspects of good questionnaire design. Quoting from the Oxford English Dictionary, design, Mr Saville said, was defined as 'a plan or sketch conceived in the mind of something to be done: the preliminary conception of an idea that is to be carried into effect by action' and applied this to the work of a professional graphic designer as one who 'is concerned with the presentation of the form according to the varying needs of the recipient, system, production and processing'. Such a concern enhances the prime purpose of a questionnaire which is to get positive feedback from the holder of information to its originator.

The visual appearance of the questionnaire resulting from sizes and styles, colour of the paper and colour of ink used is important. Illustrations can often convey lucidly that which is difficult or unwieldy to express in words, and the methods of reproduction and processing must not be overlooked. The graphic designer must ask a number of questions to elicit the ergonomic considerations, namely: In what locations does completion take place? Is the questionnaire directed to any specialised sector of the community? What is the sequence and importance of the questions? Are there clear notes and instructions on completing the form? Is there sufficient space for each question to be answered? Are related items in a standard style and position? Is the form to be completed by hand or typewriter? What is the method of distribution? Is the processing to be clerical or by computer?

Gerry Watt then showed some 'before and after' examples of how particular forms had been redesigned and had, as a result, obtained a better response (the key factor). One of these was the annual inquiry made by the Department of Education and Science to librarianship students. This had been changed from a two page duplicated form with a separate covering letter to a bright yellow single A4 sheet folded into three, incorporating the introductory letter produced by offset litho.

Malcolm Brighton, the Managing Director of Document Reading Services Ltd, spoke, under the intriguing title of 'Of cabbages and kings . . . and sticking plaster and tip up lorries', of the need for adequate communication between the originator of a form and those who process the completed document. Whilst the processors cannot dictate the style of a form, they could often through their own experience suggest simple but essential commonsense points for consideration. 'There are numerous 'Do's' and Don'ts', he said, 'and Maisie, the key punch op. knows them all. Ask Maisie! – but stick to the specific example because she doesn't generalise fluently'. Mr Brighton's first vu-graph arrestingly asked 'Do you (really) need these answers?' Is one certain the information cannot be deduced from data already to hand? If one must send out a form, 'Do you need these (particular) questions?' or could the information be obtained elsewhere? He continued: 'Will these questions produce clear answers? Have the pre-coding possibilities been fully exploited? How will these data be processed? Can the translation chore be sensibly automated? Have you consulted the experts? Have you piloted? (If possible get a devil's advocate to consider your form). Can you improve the quality control features so that mistakes just cannot be made? Can you think of any further simplifications? Do you intend to introduce further design improvements as time goes on, because simplification must always be the aim?'

He also illustrated the practical value of Optical Mark Reading (OMR) by indicating the types of analysis for which this method of processing was most economical: when there is a lot of data, when pre-codes can be used

(and this is more often than is thought), and when the layout of the questions on the form is complicated. Processing by OMR was usually more accurate, more flexible, cheaper and faster. He felt that, though technically possible, Optical Character Recognition, was not yet sufficiently developed to be an economic alternative to OMR.

Concluding the day, Tom Pilling of the Central Statistical Office from the chair drew our thoughts together and reiterated the importance of not skimping the form design and testing stages of any survey; the costs of these stages were usually small in relation to the cost of conducting and processing the survey.

The exhibition

This was planned to be an integral part of the Seminar and sought to complement the lectures with visual material, and to cover topics not explicitly mentioned by them. The sequence of the fifteen frames, which were designed with very considerable help from the Central Office of Information, Her Majesty's Stationery Office, and the Central Statistical Office's Chartist section, was:

1. Ask a Silly Question!
2. Burden (1). Fifty three forms which a light engineering firm of 120 employees actually received during 1974.
3. Burden (2). An indication of the time taken by local authorities and companies to complete a particular form and the associated cost, combined with a selection of recent forms used to obtain data from individuals.
4. and 5. Development. History of the Home Office return on Cruelty to Animals, from the statutory requirement through to the reduced computer input form in two colours, with an example of the sheets a professional designer needed to draw up.
6. Professional design, covers many aspects of form design and reproduction. A monotype machine for letterpress and a Selectric Composer for offset litho give quality results. Guide sheets help too.
7. Colour. A variety of colour in forms going to different users or departments can greatly aid processing. A wide variation in ink or paper is possible.
8. Illustrations. Examples of the uses to which illustrations can be put with good effect.
9. Personalised forms. These alleviate the burden on respondents. A proto-type of a personalised business form from the BSO was shown together with an example of an electoral register form used in Coventry last year.
10. Other computer forms. Examples of the variety and type which are currently in use.
11. Difficulties overcome. Various methods which have been tried to help respondents and to encourage them to return their questionnaire.
12. Costs: Reproduction. Typical costs incurred by four common methods of reproduction.
13. Confidentiality. The GSS takes care to assure respondents of the safeguards which apply to their answers, and market research agencies have their own standards of practice. The Younger Committee highlighted this important subject.
14. Survey Control Unit. Started in 1968, it was given fresh terms of reference by the Prime Minister in 1972. Quarterly tables appear in *Statistical News* which indicate the initial grading recent surveys have achieved after the questionnaire and reporting form details have been scrutinised.
15. Response Rates. A graph showed these for the last four years for the Census of Production, which is a major annual survey, but as figures are permitted for a company's financial year irrespective of how that may overlap with a particular calendar year the graphs are untypically smooth. Results were shown of an experiment to determine which factors were crucial in improving response rates.

A display of standard forms used both within and outside government was also shown.

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So many applications were received that it was necessary to hold a further Seminar on the 24 June. Even this has proved insufficient to meet the demand, and a third is to be held on Thursday 9 October 1975. The exhibition provoked a large number of favourable comments and it is possible that it will be displayed on other sites: readers whose department or organisation might wish to take advantage of this should contact the author at the

Survey Control Unit,
Central Statistical Office,
Great George Street,
London SW1P 3AQ.
Telephone 01–930 5422 ext. 566.

A Handout summarising the speaker's lectures was prepared and copies for non-delegates are available also from the above address.

Speakers in the seminar relax over coffee. (Top left to right). Peter Menneer (BMRB Ltd), Nicholas Bateson (OPCS), John Saville and Gerry Watt (HMSO) and Roger Jowell (Social and Community Planning Research). (Bottom left to right) Tom Pilling and Peter Brierley (CSO) and Malcolm Brighton (Document Reading Services Ltd).

Discussion in the opening session and (below) between Sir Claus Moser and Roger Jowell.

Cohorts and cusums

By **B. H. Mahon**, *Statistician, Civil Service Department*

Many readers will know of a number of sophisticated applications of CUSUMS, a notable example being TIMVAR[1] [2]. They may nevertheless find something of interest in the following simple but unusual application. For readers unfamiliar with the CUSUM technique perhaps this note will serve as a short introduction. References 4 and 5 are recommended for anyone who wishes to make a proper study.

The Statistical Review of the Statistician Group[3], issued in December 1974, contained a set of cohort tables giving data on wastage and on the current grade of people still serving. Table 1, below, shows wastage data from the cohort table for people who joined as Assistant Statisticians.

Table 1

Year of entry	*Size of intake*	*Wasted after the following number of years*[1] 0	1	2	3	4	5	6	7	8	9
1964	3	–	1	–	1	–	–	–	–	–	–
1965	6	–	1	2	1	–	–	–	–	–	
1966	16	1	5	1	3	1	–	–	–		
1967	21	4	8	1	1	1	–	1			
1968	23	1	4	5	3	–	1				
1969	23	2	6	4	1	2					
1970	35	–	5	3	2						
1971	26	1	1	2							
1972	22	1	2								
1973	24	1									
Total	199	11	33	18	12	4	1	1	–	–	–

[1] 'Wasted after *n* years' means here that the person who joined in the calendar year N left in year $N+n$. The term 'leavers within n years' used in the CUSUM chart and in Table 3 has a similar meaning, that is 'leavers within one year' are those people who leave in the same calendar year as they joined and so on.

Clearly, the table contains quite a lot of information about changes in the wastage pattern over time but it is very difficult, if not impossible, to assimilate the information directly. Consideration of this problem has led to the use of CUSUM (Cumulative Sum) charts, which are much more effective in trend identification than 'conventional' graphs of wastage.

The CUSUM chart comes from the field of Quality Control, where it was introduced as an alternative to the standard X chart (in which successive sample means are plotted). To take a simple example, suppose a process produces metal strips of 'target' length 1 cm. The CUSUM might then be derived as follows . . .

Table 2

Actual length of strip (cm)	1·02	1·01	·99	1·03	·97	1· 01	etc
Deviation from target (cm)	·02	·01	–·01	·03	–·03	·01	etc
CUSUM of deviations	·02	·03	·02	·05	·02	·03	etc

. . . leading to a graph. The *slope* of the CUSUM graph clearly represents the deviation of process average from the target figure and the *shape* of the graph over a long period will show how the process average has varied with time. Control limits are often set to detect significant changes in the process average but an analysis by eye is sometimes sufficient. This is so in our example, where the process average to be monitored is wastage. There was no obvious target value for wastage so an arbitrary target, or 'reference value', was chosen to give a suitable graph. A little experimentation showed that a good visual presentation could be obtained from the data of Table 1 by setting the reference value for wastage (percentage of leavers) at 25 per cent so that wastage of over 25 per cent would be represented by a rising graph and wastage of under 25 per cent by a falling graph. Values of x and y had to be derived in such a way that the slope of the plot represented percentage of people who left within a specified period and, in particular, that a horizontal line represented 25 per cent wastage. This was achieved by taking both x and y as CUSUMS:—

x=Cumulative total of entrants

y=Cumulative total of leavers within a specified period — $0{\cdot}25 \times$ Cumulative total of entrants.

For example, taking the 'specified period' as two years, we have:—

Table 3

Year of entry	1964	1965	1966	1967	1968	etc.
Number of entrants	3	6	16	21	23	,,
Number of leavers within two years	1	1	6	12	5	,,
Cumulative total of leavers	1	2	8	20	25	,,
x = Cumulative total of entrants	3	9	25	46	69	,,
y = Cumulative total of leavers –0·25x	0·25	–0·25	1·75	8·5	7·75	,,

The resulting graphs for leavers within one, two, three and four years are shown in Figure 1.

It may be seen that the slope between any two points of a graph represents the percentage of people who joined in that interval and who left within the stated period. A slope scale like the one shown in Figure 1 is easily constructed and enables the percentage of leavers over any interval to be determined. Ideally, the slope scale should be marked on a separate piece of transparent material so that it can be superimposed on any part of the chart. The *y*-scale is really just a plotting device and is redundant once the slope scale has been added. A horizontal time scale can be marked in, as shown in the Figure. It is not uniform, owing to the varying sizes of the cohorts, but this is not a serious drawback.

To study variation in wastage pattern over the years, one need only observe how the slopes of the graphs change with respect to time. In Figure 1 the slopes generally decrease from left to right, showing that recent recruits have less tendency to leave within a few years than earlier recruits. In particular, those who joined after 1970 have a lower tendency to leave than those who joined before. For example, the graph of 'leavers within two years' shows that 36 per cent of people who joined before 1970 left 'within two years' (that is in 1970 or 1971) whereas only 12 per cent of those who joined in 1970 to 1973 inclusive left 'within two years'. This decrease in wastage among post-1969 recruits can be attributed largely to the introduction of the Senior Assistant Grade in 1971. The chart shows that introduction of the new grade has had less effect on the tendency of people to leave within one year than on the tendency to leave within two or three years. It also draws attention to the fact than an exceptionally high percentage of people who joined in 1967 (57 per cent) left within two years.

This type of CUSUM chart has two particular advantages as a graphical presentation. Firstly it is self-weighting: each cohort, or sample, contributes t the overall effect in proportion to the amount of dat it contains. Secondly, it enables the eye (a powerfu instrument) to separate the trend from the rando variation but, unlike other smoothing techniques, retains all the information contained in the origina data.

References

1. 'A User's Guide to TIMVAR', by J. M. Evans. Research Exercise No 10/73, Central Statistical Office.

2. 'Techniques for Testing the Constancy of Regression Relationshi over Time', by R. L. Brown, J. Durbin and J. M. Evans. Paper rea before Royal Statistical Society, 4 December 1974.

3. 'A Statistical Review of the Statistician Group,' December 197 Statistics Division 1, Civil Service Department.

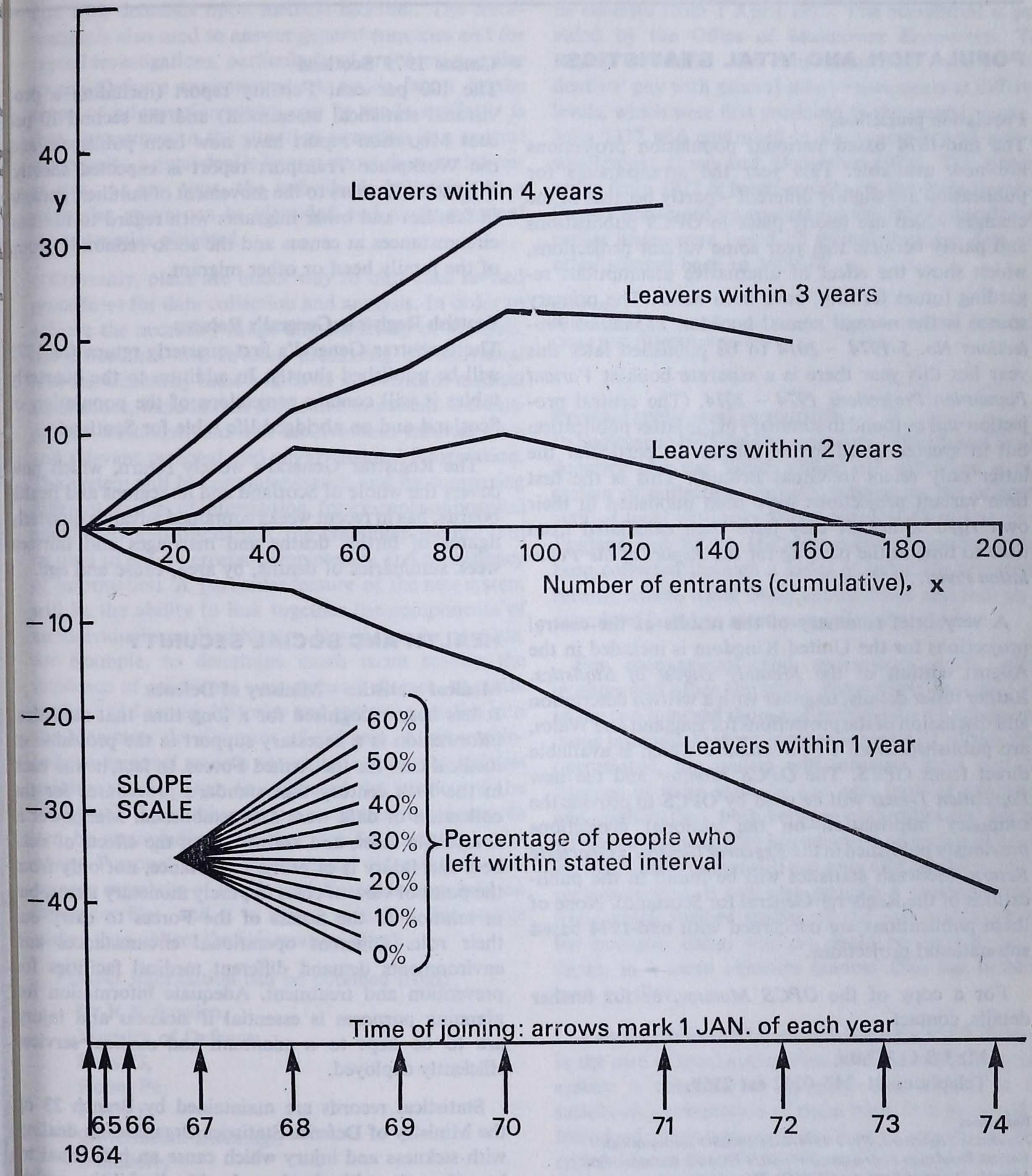
4. *Cumulative Sum Techniques*, by R. H. Woodward and P. L. Goldsmit Oliver and Boyd, 1964. Price £1·25.

5. *Cumulative Sum Tests. Theory and Practice*. Van Dobben de Bruy Griffin 1968. Price £1·20.

Figure 1

Wastage among people who joined as assistant statisticians

Cusum chart by year of entry



Note : The y scale is included only to show how the graph was constructed. Normally it would be omitted.

Notes on current developments

POPULATION AND VITAL STATISTICS

Population projections

The mid-1974 based national population projections are now available. This year the arrangements for publication are slightly different – partly because of the changes which are taking place in OPCS publications and partly because this year some variant projections, which show the effect of alternative assumptions regarding future fertility, have been made. The primary source is the normal annual booklet, *Population Projections No. 5 1974 – 2014* to be published later this year but this year there is a separate booklet *Variant Population Projections 1974 – 2014*. (The central projection will be found in summary in the latter publication but in greater detail in the former. In particular the latter only refers to Great Britain). This is the first time variant projections have been published in their own right although they have been calculated from time to time in the past, eg for the *Report of the Population Panel*.

A very brief summary of the results of the central projections for the United Kingdom is included in the August edition of the *Monthly Digest of Statistics*. Rather fuller details, together with a written description and discussion of the projections for England and Wales, are published in an *OPCS Monitor* which is available direct from OPCS. The *OPCS Monitor* and the new *Population Trends* will be used by OPCS to provide the summary information on the national projections previously published in the *Registrar General's Quarterly Return*. (Scottish statistics will be found in the publications of the Registrar General for Scotland). None of these publications are concerned with mid-1974 based sub-national projections.

For a copy of the *OPCS Monitor*, or for further details, contact

Mr I S G White,
Telephone 01–242–0262 ext 2169.

References

Population Projections, No. 5 1974–2014 (HMSO forthcoming).
Variant Population Projections, 1974–2014 (HMSO forthcoming).
Monthly Digest of Statistics (HMSO) (Price £1·20 net).
OPCS Monitor – Reference PP2 75/1 (available direct from OPCS).
Population Trends No. 1 (HMSO forthcoming).
Report of the Population Panel Cmnd 5258 (HMSO) (Price 90p net).

Census 1971 Scotland

The 100 per cent Fertility report (including a pr visional statistical assessment) and the second 10 p cent Migration report have now been published, an the Workplace Transport report is expected shortl Migration II refers to the movement of families, perso in families and other migrants with regard to housi circumstances at census and the socio-economic grou of the family head or other migrant.

Scottish Registrar General's Returns

The Registrar General's first quarterly return for 19 will be published shortly. In addition to the quarter tables it will contain projections of the population Scotland and an abridged life table for Scotland.

The Registrar General's weekly return, which no covers the whole of Scotland and its regions and healt boards, has in recent weeks contained advance quarter figures of births, deaths and marriages and thirte week summaries of deaths, by area, cause and age.

HEALTH AND SOCIAL SECURITY

Medical statistics – Ministry of Defence

It has been recognised for a long time that statistic information is a necessary support in the provision medical care for the Armed Forces. In fact, it was bac in the 19th century that standard procedures for th collection of data were first established. Manpower a valuable asset, and knowledge of the effects of sick ness and injury is of prime importance, not only fro the point of view of costs in purely monetary terms, bu in relation to the fitness of the Forces to carry ou their role. Different operational circumstances an environments demand different medical facilities fo prevention and treatment. Adequate information fo planning purposes is essential if sickness and injur are to be kept to a minimum and medical service efficiently deployed.

Statistical records are maintained by Branch 23 o the Ministry of Defence Statistics Organisation dealin with sickness and injury which cause an individual t be off work, with death and with disabilities whic require a person to leave the Forces. Additionall regular reports are made of in-patient treatment in th

hospital and other facilities provided by the Forces' medical services. From the data available at various levels in the organisational structure of the Forces, regular reports are provided for commanders and medical staffs dealing with sickness and injury levels, with deaths and with demands upon medical facilities. The information is also used to answer general enquiries and for special investigations, particularly of problems peculiar to the Defence environment. A major factor in the scope of information which can be made available is that, in contrast to the situation common in a general community, a great deal is known about the populations at risk. At any time, the individuals belonging to a particular group can be identified and many personal characteristics obtained.

Currently, plans are under way to introduce revised procedures for data collection and analysis. In order to achieve the necessary range and flexibility of analysis, the procedures will involve processing of individual records. Generally these will cover all events of medical significance, including in particular in-patient and out-patient treatment, and will involve both medical data and relevant personal and environmental information. The system will be computer-based, and by comparing different sources of information, for example of hospital admissions and discharges, the computer facility will be used to ensure greater completeness and consistency of information. A particular feature of the new system will be the ability to link together the components of an individual's medical history. It will then be possible, for example, to determine much more readily the incidence of conditions such as heart disease, to relate medical and service histories and carry out studies into the long-term development of sickness. A scheme involving personal records naturally requires the strictest measures to be taken to safeguard the privacy of the individual, but in this case the computer-stored records can be anonymous since they are for statistical purposes. Personal and environmental information concerning members of the Armed Forces is now held on computer files, and it is hoped to utilise this source rather than collect the information afresh.

Further information can be obtained from:

Dr R R Sowden,
Ministry of Defence,
Stats 23,
Room P6,
F Block,
Government Buildings,
Stanmore,
Middlesex,
HA7 4PZ,
Tel 01–958–6377 Ext 3366.

Doctors' and Dentists' remuneration

The Fifth Report of the Review Body on Doctors' and Dentists' Remuneration, published in April 1975, provides recommendations for salaries and fees of doctors and dentists in the National Health Service to be effective from 1 April 1975. The Secretariat is provided by the Office of Manpower Economics. The Report continues the comparisons of doctors' and dentists' pay with general salary movements at different levels, which were first produced in the second report in June 1972 and continued in the fourth report and its supplement (June and December 1974). The present series from 1972 is based mainly on the New Earnings Survey and more up-to-date figures from consultants; earlier series were based on Inland Revenue data and other sources back to 1959–60.

Reference

Review Body on Doctors' and Dentists' Renumeration 5th Report 1975 Cmnd 6032 (HMSO) (Price 65p net).

Personal social services statistics

In September 1975 the Department of Health and Social Security and the Welsh Office will introduce a new system of collecting statistics relating to the principal staff of local authority Social Services Departments in England and Wales. Hitherto staffing information has been collected through a series of inflexible aggregated returns which, while being cumbersome and tedious to complete, failed to meet many planning needs.

For management and supervisory staff, social workers and other key staff – some thirty thousand out of the two hundred thousand employed – a basic anonymous individual return is being introduced. When fully operational, the system will measure gross and net wastage of these staff, by age, sex, level of education and qualification, both between authorities and for the service as a whole. The introduction of such a dynamic individualised system will not only add flexibility to the routine returns, it will also provide a sampling frame from which further studies of the role and work of, for example, social workers could be carried out in depth, in a more objective manner than has hitherto been possible.

A similar individual approach is proposed for children in the care of local authorities. Piloting of the proposed system is currently in progress and, subject to the satisfactory completion of these trials, it is proposed to introduce a unit system for children in care for the year ended March 31 1977. While the routine information collected about each child will be limited to simple objective characteristics, the system can be extended to cover more subjective assessments and permit the

selection of samples of children with such characteristics as deem them worthy of further study.

Further particulars may be obtained from:

Mr J I T Pascoe,
Department of Health and Social Security,
Telephone: 01–407 4411 ext 250.

Social work in Scotland

Scottish Social Work Statistics 1973, the third annual digest of statistics for social work services in Scotland, was published on 22 July 1975.

The digest contains one hundred and thirty six tables, an increase of twenty one over the 1972 volume. These illustrate various aspects of social work services, including services to children, families, the physically handicapped, the mentally disordered, the elderly, persons on probation and those released from penal detention. The publication contains detailed analysis of the operation of the children's hearing system, which in April 1971 replaced juvenile courts in Scotland. There are figures also covering staffing, training and finance. Most of the tables show national figures, but a section on local statistics provides figures for each of the fifty two local authorities, which were until May 1975 responsible for social work services, arranged as nearly as possible in the new regions.

Where possible, comparisons are made with the corresponding figures for 1972 and in some cases historical figures are given for 1963 and the five years 1969–1973.

It is expected that the fourth issue, relating to 1974 will be published about the end of 1975.

For further information please contact:

Mr D F Goda,
Social Work Services Group,
St Andrew's House,
Edinburgh,
EH1 3DB.
(Tel. No. 031–556 8501 Ext. 2057).

Reference

Scottish Social Work Statistics 1973 (HMSO) July 1975 (Price £2·30 Net).

SOCIAL STATISTICS

General Household Survey

The second report on the General Household Survey covering 1972 was published in June (1) (2). It updates many of the tables contained in the 1971 introductory report (3) (4), as well as including new topics such as the extent of household theft (reported and unreported), smoking, and a discussion of the characteristics of non-respondents and techical aspects of sampling.

Commentary is concentrated on new topics, areas where significant movements took place and changes in questioning or survey methodology, rather than on those tables which changed little between 1971 and 1972. Some tables use aggregated 1971 and 1972 data to improve accuracy, especially where clustering and/or small numbers led to estimates with high standard errors.

Chapter One on population, covers the main demographic variables and also some prelininary work on a new variable 'income per person unit', which uses Supplementary Benefit scales to relate income to 'person units'. The next four chapters cover the main subject areas of housing, employment, education and health.

The chapter on housing includes a new section on housing costs, especially rent and mortgage payments, related to basic household variables, and some tables on consumer durables. There is also a section comparing British and French housing data, for example, showing that owner occupation is almost as common in France but that flats are more common than one-family houses. Many of the tables in the chapters on employment and education have been altered to bring out the relationships more clearly, for example, showing the drop in job satisfaction levels.

The health chapter has new sections on self medication and smoking. The smoking section compares GHS and Tobacco Research Council data; it is of interest both as social data and as an exercise in survey methodology.

The final two chapters, Six and Seven, cover technical aspects of the survey. There is a discussion of the characteristics of non-respondents which uses 1971 Census schedules as a check and which is discussed in an article in this issue (Page 30.17). The final chapter deals with the estimation of sampling errors in complex sample designs.

References

(1) *The General Household Survey 1972* (HMSO) June 1975 (Price £5·00 net).
(2) *Statistical News* (16.7) (HMSO) (Price 40p net).
(3) *The General Household Survey – Introductory Report* (HMSO) July 1973 (Price £1·80 net).
(4) *Statistical News* (22.19) (HMSO) (Price 40p net).

MANPOWER AND EARNINGS

EEC: Employment Statistics Programme

The Statistical Office of the European Communities, at the request of the Commission, has formulated a programme for the development of a system of harmonised employment statistics. The requirements for such a system stem from the employment policy aspects of

the Social Action Programme and the employment implications of several other policy areas (industrial, environmental, educational etc).

The programme was discussed by the Directors-General of the National Statistical Offices of the member states at their conference in London 5–7 May 1975 and, subject to reservations on points of detail, was broadly agreed. The outlines of the programme will be submitted to the Council of Ministers, probably before the end of 1975. Countries will participate in subsequent development through the Statistical Office Working Party on Employment Statistics.

The programme covers some work which is already in hand, such as the synchronisation and harmonisation of Censuses of Population. The more important new proposals include the following:—

Community labour force surveys of the kind which have been carried out already from time to time (the United Kingdom participated in the 1973 and 1975 surveys: *Statistical News* 20.42, 21.32, 22.33, 29.25) should be instituted on a regular basis at intervals of two or three years.

Although it is impracticable to harmonise the conceptual bases of short-term statistics of unemployment and vacancies (because such concepts arise from national legislation and administrative procedures), countries should supply analyses of such statistics on a common format.

Harmonised statistics of employees in employment covering the whole economy and classified by sex and industry should be provided annually (six-monthly for certain industries.)

There should be a long-term objective of adopting a consistent set of common definitions for use in compiling national statistics in this field. Particular reference was made to the need for a standard system of classification of occupations.

Labour Force Survey in Scotland

The 1975 Labour Force Survey, carried out on behalf of the Department of Employment and the EEC statistical office, secured a voluntary response of 86 per cent from households eligible for interview. This compares with an 89 per cent response in the 1974 census test and 80 per cent in the 1973 Labour Force Survey.

Census of Employment 1974

An article in the June issue of the *Department of Employment Gazette* describes the new system of employment statistics and includes first results of the June 1974 Census of Employment. These take in figures for employees in employment in June 1974, comparisons with the previous year's census and some regional analysis.

Employment projections 1981

Some projections of a possible pattern of employment in the main industrial sectors in 1981 have been published in the *Department of Employment Gazette*. These are the first employment projections of this kind to be published for a long time. They show a continuing growth of employment in the public sector, particularly in health and education, and a continuing decline in employment in most of the private sector. The projections are based on information from many sources including the 'little Neddies', though they do not take account of the latest changes in the public expenditure programme. These are not official projections but have been made by five research workers who are named in the article.

Reference

Department of Employment Gazette, May 1975 (pages 400/5) (HMSO) (Price 70p net).

Temporary workers

The results of a pilot survey of the actual and potential demand for temporary workers are featured in the June 1975 issue of the *Department of Employment Gazette*. Conducted for the Employment Service Agency by National Opinion Polls, the pilot survey provides information on the general level, incidence and characteristics of temporary employment.

Women at work

A survey on management attitudes and practices towards women at work was published in June. It was carried out by Audrey Hunt of the Office of Population Censuses and Surveys for the Department of Employment. The three main aspects of equality at work on which questions were asked were equal pay, more women in senior positions and more training for women. Over three quarters of those questioned said that on the whole they were in favour of equal pay; the majority of them were in favour of more training; but less than half thought it would be a good thing if more women occupied senior positions. The survey went beyond the direct questions in order to discover underlying attitudes. It also investigated many other aspects of women's working lives, such as facilities and fringe benefits, part-time working, shift work and working hours in general, appointments and promotions, employee performance and the types of jobs done by men and women. Overall, the survey finds that the principle of equal opportunity is likely to meet with considerable opposition in practice. There is evidence of a fairly widespread traditionalist atitude, which not only covers senior jobs but also extends to apprenticeships.

The survey was carried out in the Spring of 1973

among two hundred and thirty establishments with one hundred or more employees. At each establishment the person responsible for formulating personnel policy and the person responsible for implementing policy for women were interviewed.

Reference

Employment Policy Survey: Management Attitudes and Practices towards Women at Work by Audrey Hunt, (HMSO) (Price £5·00).

Young persons entering employment

Some Department of Employment projections of the numbers of young persons leaving school and entering the employment market in 1975 and 1976 have been published in an article in the Department's Gazette.

Reference

Department of Employment Gazette, May 1975 pages 395/9 (HMSO) (Price 70p net).

Index of average earnings

Definitive complete series of the monthly index of average earnings from January 1963 to December 1974 for manufacturing industries and for all industries covered were given in an article in the May issue of the *Department of Employment Gazette*. They are given before and after adjustment for normal seasonal variations; the seasonally-adjusted figures for the final year may be revised slightly when new adjustment factors are adopted.

Reference

Department of Employment Gazette, May 1975, pages 410/1, (HMSO) (Price 70p net).

London weighting: new indices

The Department of Employment has published the first of a new series of annual indices showing changes in the amount of additional cost for those working in London compared with elsewhere in the United Kingdom. These indices bring up to date the information given last year in the Pay Board's report on London Weighting, *Statistical News* (26.16).

That report's recommendations were based on four necessary components of additional cost: housing, travel to work, other costs, and a suggested allowance for extra wear and tear and lower standards of housing. The article in the June issue of the *Department of Employment Gazette* gives index numbers for those four components of additional cost for April 1975 (based on April 1974=100) and also gives weighted totals for inner and outer London respectively. The derivation of these figures is explained and the detailed indices from which they are calculated are given.

In consequence the 1967-based indices of fares, rents and other housing costs in Greater London and elsewhere which have been published by the Department in recent years, following an agreement with the National Board for Prices and Incomes, are no longer compiled.

Reference

Department of Employment Gazette June 1975 (HMSO) (Price 90p net).

INCOME AND WEALTH

Distribution of income 1972-73

The Central Statistical Office have prepared estimates of the distribution of personal incomes for the income tax year 1972–73. The results are described in detail in the August issue of *Economic Trends* and they will be published in the Blue Book for 1975. Preliminary results have already appeared in the Report by the Royal Commission on the Distribution of Income and Wealth. These estimates resume the series of estimates that were last made for 1967 and published in the 1969 National Income and Expenditure Blue Book. They relate to the distribution of the total income of tax-units before and after tax by their pre-tax and post-tax range. The current set is based on the Inland Revenue half per cent annual sample survey of personal taxable incomes for 1972–73, supplemented by statistics from the Family Expenditure Survey and the National Accounts on non-taxable state benefits, some income in kind and of income below the effective tax threshold.

Reports of the Royal Commission on the Distribution of Income and Wealth

The Royal Commission was set up by the present Government in 1974. In their Standing Reference the Commission were asked to 'undertake an analysis of the current distribution of personal income and wealth and of available information on past trends in that distribution'. A further reference to the Commission was on income from companies and its distribution. The Commission were invited to consult with the Government Statistical Service, which gave evidence, including oral evidence by the Central Statistical Office. In addition, Government Statisticians had many informal discussions with the Commission's staff, and supplied special estimates and certain previously unpublished material.

The Commission have now published two reports. The first report contains chapters on the nature of income and wealth, the measurement of distributions and trends, the distribution of personal income, the distribution of personal wealth, on gaps on the coverage of official statistics, and a review of the Commission's findings. There are many statistical tables in this report, including the income distribution table mentioned above. The second report contains much statistical information on the pattern of distribution of the ownership of the equity capital of companies, and of the income from it including its final distribution to individuals, pension funds, life assurance funds, other institutions, etc.

The Commission's findings in their first report include recommendations for improvements to the official statistics on the distribution of income and wealth (paragraphs 363 to 371). They include recommendations

that the CSO should report by the end of 1975 on the advantages of bringing together various sources of income statistics; that work on the production of national and sector balance sheets should be resumed and that official estimates should be produced with the shorter of two possible timescales (paragraph 365); that the CSO's plans for further improving the Blue Book income distribution tables and for filling in the four-year gap between 1967 and 1972/73 should be implemented; that a comprehensive feasibility study of a sample survey of wealth should be undertaken by the CSO, accompanied if necessary by a pilot survey early in 1976. The Government Statistical Service are giving sympathetic consideration to these recommendations.

Reference

Royal Commission on the Distribution of Income and Wealth. *Report No. 1, Initial report on the standing reference*, Cmnd 6171, (HMSO) (Price £3·10 net).

Report No. 2, Income from companies and its distribution, Cmnd 6172, (HMSO) (Price £2·45 net).

INDUSTRIAL STATISTICS

New Business Monitor on office equipment

Although official statistics on quarterly manufacturers' sales of a wide range of individual items of office equipment have been available from the Business Statistics Office for some time, the user has hitherto had to gather his information from some ten Business Monitors covering the relevant manufacturing industries. Accordingly, the relevant statistics have now been brought together in one handy publication – the quarterly Business Monitor PQ 1005. This gives, for the first time, a prepared quarterly analysis providing a clear picture of the size of the United Kingdom office equipment market. It contains sales figures, and relevant export and import information, on individual products in the following classes of office equipment:

Electronic computer equipment
Office machinery
Document copying machines
Dictating machines
Private telephone exchange equipment
Office furniture (metal and wooden)
Business forms (loose-leaf and filing supplies)
Paper fasteners, clips, etc
Miscellaneous stationers' goods

The first issue of the new Business Monitor, which is for the fourth quarter of 1974, and also contains annual figures for 1973 and 1974, is now available. Specimen copies can be obtained from:

The Library,
Business Statistics Office,
Cardiff Road,
Newport,
Gwent, NPT 1XG.
(Tel Newport 56111, Ext. 2973).

Subsequent issues will be available on subscription (52p per year) from:

Her Majesty's Stationery Office,
PO Box 569,
London, SE1 9NH.

Other new quarterly Business Monitors

Since the last issue of *Statistical News*, two new Business Monitors have been added to the Quarterly Production series and two to the Service and Distributive series.

The reference numbers and titles are:

PQ 1002 Manufacturing industries total sales. (Annual subscription 52p)

PQ 1005 Office equipment. (Annual subscription 52p)

SD 10 Report on the Census of Distribution and Other Services 1971. Part 1 Retail outlets (Establishment Tables). (Price £1·60)

SD 16 Report on the Census of Distribution and Other Services 1971. Part 7 East Anglia Region. (Price £1·05)

Business Monitors in the Quarterly and Monthly Production series and the Miscellaneous series, and certain Monitors (Nos. SD 1 to SD 9) in the Service and Distributive series, are normally available by annual subscription from:

Her Majesty's Stationery Office,
PO Box 569,
London, SE1 9NH.

Copies of specific issues, including back issues, can be ordered by post (payable in advance) from:

The Library,
Business Statistics Office,
Cardiff Road,
Newport,
Gwent, NPT 1XG.
(Tel: 0633–56111 Ext 2973;
Telex 497121/497122 – Answer back BSO Newport)

from which a complete list of all the Business Monitors available can also be obtained on application. Exceptionally, copies can be purchased over the counter (for cash) at *either:*

Department of Industry Central Library,
1 Victoria Street,
London SW1H 0ET,

or the Department's

Statistics and Market Intelligence Library,
Export House,
50 Ludgate Hill,
London, EC4M 7HU.

The Annual Census of Production Reports (published in the Annual Production series) are available on standing order from Her Majesty's Stationery Office, at the address given above, or can be purchased separately from Government Bookshops or through booksellers. This also applies to the Census of Distribution 1971 Reports (which are being issued as Business Monitors SD 10 to SD 23).

Annual Census of Production

1972

Publication of the Business Monitors reporting the results of the Annual Census of Production 1972 has now started. The following table lists those which have been published to date. The Census of Production (PA) reports are available on standing order from Her Majesty's Stationery Office, PO Box 569, London SE1 9NH (Telephone 01–928–6977), although they are not included in the global subscription arrangements for the Business Monitor Series.

Business Monitors of the Annual Census of Production 1972 published to date

Business Monitor Number	*Description*	*Standard Industrial Classification Minimum List Heading*
PA 1001	Introductory notes	
PA 101	Coal Mining	101
PA 104	Petroleum and natural gas	104
PA 217	Cocoa, choclate and sugar confectionery	217
PA 312	Steel Tubes	312
PA 321	Aluminium and aluminium alloys	321
PA 322	Copper, brass and other copper alloys	322
PA 334	Industrial engines	334
PA 342	Ordnance and small arms	342
PA 352	Watches and clocks	352
PA 362	Insulated wires and cables	362
PA 391	Hand tools and implements	391
PA 392	Cutlery, spoons, forks and plated tableware, etc	392
PA 393	Bolts, nuts, screws, rivets, etc	393
PA 394	Wire and wire manufacturers	394
PA 399·5	Drop forgings, etc	399/5
PA 416	Rope, twine and net	416
PA 493	Brushes and Brooms	493
PA 601	Gas	601
PA 602	Electricity	602

1973

Business Monitor PA 1000 the first of the volumes reporting the results of the Census of Production 1973 has now been published. The volume which contains provisional results for all manufacturing industries, is obtainable from Her Majesty's Stationery Office, price 71p. Besides giving information on output, employment and net capital expenditure, it includes figures for total sales of goods produced and work done, the cost of purchases, the breakdown of employment and wages and salaries between operatives and other employees (administrative, technical and clerical employees) and details of capital expenditure.

Further information on these Business Monitors and on the Census generally can be obtained from:

Mr R J Egerton,
Business Statistics Office,
Cardiff Road,
Newport,
Gwent, NPT 1XG.
Telephone: Newport (STD Code 0633) 56111 Ext 2455.

Input-output tables for 1971

The second in the Central Statistical Office's annual series of updated input-output tables was published in June as a Business Monitor, *Input-Output tables for the United Kingdom 1971*, reference number PA 1004. Summary tables for 1971 were published in the April 1975 issue of *Economic Trends*. A detailed description of the construction and use of input-output tables can be found in *Studies in Official Statistics No. 22*.

The tables use data for 1971 from the census of production and the national accounts together with the sales and expenditure patterns observed in the last firmly based input-output tables, for 1968, as a means of estimating the flows of goods and services between industries in 1971. Since the potential errors become greater as the base year recedes the tables for 1971 distinguish only fifty-nine industries compared with ninety in the tables for 1970. However, because of the growing importance of North Sea oil and gas, a new input-output industry has been distinguished for 1971. This is Minimum List Heading (MLH) 104 (petroleum and natural gas) which was previously combined with 'other mining and quarrying'. This industry undertakes exploration for and extraction of petroleum and natural gas on land and off shore. The data relating to this industry have been compiled with the co-operation of the Department of Energy.

The tables show the inter-industry flows of domestically produced commodities and give a detailed analysis of imports entering United Kingdom production and consumption. In addition, analyses derived from the basic tables give valuable insights into the structure of the economy and can be used to investigate problems such as the impact of rising costs on output prices, the implications for industrial output of changes in consumer demand, and so on.

Copies of the Business Monitor may be obtained from:

Her Majesty's Stationery Office,
PO Box 569,
London SE1 9NH.
(Price £2·00 net).

Reference

Input-output tables for the United Kingdom 1968, Studies in Official Statistics No. 22 (HMSO) 1973 (Price £7·30 net).

An additional series of agricultural price indices

A new monthly series of agricultural output price indices has been produced by the Ministry of Agriculture, Fisheries and Food to supplement the existing Agricultural Price Index (API). The new series, which like the API is based on the four harvest years 1968/69 to 1971/72, provides, for the first time, composite monthly price indices for the four main commodity groups (farm crops, fatstock, livestock products and poultry, and vegetables and fruit) and for all-products. The indices have been based on the principle of a basket of goods which is the same for any particular month but which varies from month to month during the year. The methodology has been described fully in an article in *Economic Trends* No. 259, May 1975, which, in addition, presents the monthly values of the indices from July 1968 to December 1974, and compares the annual averages of the monthly indices with the corresponding annual API values. The two versions of the annual series show similar, though not identical, movements. The differences, which are greatest for the vegetable and fruit group, occur mainly because of different methods of weighting together the monthly indices to form an annual index. In the new series, the monthly pattern of weights has been calculated from the base period and remains fixed throughout whereas, in the existing API, the weighting is based on the current pattern of marketing and therefore changes from year to year.

The new monthly price indices for the groups and for all-products are published in the *Monthly Digest of Statistics* and will, in due course appear in future issues of *Agricultural Statistics* (*United Kingdom*). The latest available indices, which for most groups will be for the preceding month, will be shown in the monthly *Agricultural Prices Indices* available on subscription from:

Statistics Division,
Executive Unit A,
Ministry of Agriculture, Fisheries and Food,
Tolcarne Drive,
Pinner,
Middlesex HA5 2DT.

References

Economic Trends (HMSO) monthly. Price £1·15 net.
Monthly Digest of Statistics (HMSO) monthly. Price £1·20 net.
Agricultural Statistics, United Kingdom, (HMSO) annual. Price £1·00 net.

Agricultural Censuses and Surveys England and Wales

The December 1974 Agricultural Census [1]

The main results of this sample census in England and Wales were published in a Press Notice on 24 February 1975.

The results for crop acreage forecasts and machinery items, and the age analyses of whole-time farmers and male workers were published in a Statistical Information Notice on 5 May 1975[2].

The March 1975 Sample Enquiry[3]

The results of this enquiry in England and Wales were published in a Press Notice on 7 May 1975. These show that dairy cows decreased and beef cows increased in number compared with March 1974. The pig-breeding herd was smaller than a year before. The egg-laying flock decreased during the year and growing pullets were down in numbers compared with March 1974.

The April 1975 Sample Pig Enquiry[4]

The results of this enquiry in England and Wales and in the United Kingdom were published in a Statistical Information Notice on 2 June 1975.

References

(1) Press Notice No. 66 issued by the Ministry of Agriculture, Fisheries and Food.
(2) Statistical Information Notice (Stats 122/75) issued by the Ministry of Agriculture, Fisheries and Food.
(3) Press Notice No. 156 issued by the Ministry of Agriculture, Fisheries and Food.
(4) Statistical Information Notice (Stats 144/75) issued by the Ministry of Agriculture, Fisheries and Food.

Provisional Results of the June 1975 Scottish Agricultural Census

Provisional results of the Scottish Agricultural Census held on 2 June 1975 were published as a Scottish Office Press Notice on 1 July 1975. The results are based on an analysis of about 50 per cent of the returns, and are derived by ratio estimation using the final results of the corresponding Agricultural Census held in June 1974. Provisional estimates are therefore subject to some error.

Overall cattle numbers have fallen slightly from the record level of 1974. The contraction is shared by both beef and dairy cattle, although the latter has shown the larger percentage change. The national sheep flock remains stable but pig numbers are down by about 11 per cent compared with last June, although they show a 4 per cent increase over the numbers recorded at the April 1975 pig sample census. The switch from oats to barley continues, and the wheat acreage has fallen back this year. The acreage of potatoes continues to decline. A 4 per cent reduction in the regular farm labour force is marginally more than that recorded in recent years.

The April pig sample census – Scotland

The results of this census in Scotland were published as a Scottish Office Press Notice on 27 May 1975. These results show a contraction of ninety-five thousand (15 per cent) in total pig numbers over the year since April

1974. Compared with December 1974 there were four thousand fewer breeding pigs but this decline is less than half that recorded for the same period last year. The number of gilts expected to be used for breeding has shown a 10 per cent increase between December and April.

TRANSPORT

National Travel Survey 1972/73

The Department of the Environment will be publishing the first of a series of publications based on data collected during the 1972/73 National Travel Survey. It will contain a total of forty-three tables classified into eight sections depending upon the counting unit used.

The section based on households gives information on vehicle availability, weekly mileages travelled, weekly expenditure on public transport and the number of journeys made, whilst for individuals there is information on driving experience and type of licences held. Tables relating to mode of transport and journey purposes are given separately for car-owning and non-car-owning households both for the number of journey stages and passenger mileage.

Occupancy rates of vehicles by length of stage and by journey purpose are shown together with information on engine sizes, vehicle weekly mileages and data on business expenses received towards motoring costs. A final section relates to car parking at place of employment.

Reference
National Travel Survey 1972/73. Cross sectional analysis of passenger travel Great Britain (HMSO) forthcoming.

NATIONAL ACCOUNTS

National Income and Expenditure 1964-74

This year's National Income and Expenditure Blue Book (to be published as usual in September) will include a number of new tables and additional data. Estimates of real national disposable income, introduced in the January 1975 issue of *Economic Trends*, will be published for the first time in respect of the years 1953 onwards. A number of income and saving aggregates will be presented both before, and after, providing for depreciation and stock appreciation in order to show more clearly how these figures have been affected by the relatively high rates of inflation in recent years. An alternative presentation of the combined capital account will show saving and investment after providing for depreciation and stock appreciation.

Estimates for the income and expenditure of private non-profit-making bodies, and for the rest of the personal sector, will also be published in the Blue Book of the first time. These were introduced in an article published in the May 1975 issue of *Economic Trends* which gave estimates for the years 1966 to 1972; the series has been extended to 1974 and the estimates for earlier years updated.

Reference
Economic Trends monthly (HMSO Price £1·15 net).

Regional Gross Domestic Product

An article in the May issue of *Economic Trends* publishes improved regional estimates of gross domestic product and its components from 1966 to 1972. It also includes estimates of the industrial distribution of regional income from employment and self employment.

Private and non-profit making bodies

Articles in the May and June issue of *Economic Trends* present the results of exercises to construct respectively accounts and balance sheets for private non-profit making bodies – a component of the personal sector. The first article also includes a speculative attempt to produce an account for households. An interesting result of this exercise is that a very rough figure emerges for net household discretionary (that is non-contractual) saving. Given the various assumptions, such saving was very low in 1972 – probably somewhere between minus and plus two hundred million pounds, compared with a total income of over fifty one thousand million pounds.

HOME FINANCE

Commodity analysis of local government revenue expenditure: Pilot survey of London Boroughs 1973/74

Over recent years there has been an increasing need for an accurate assessment of the rise in prices of goods and services purchased by the local authority sector. Such an assessment cannot be made without detailed knowledge of the commodity composition of the expenditure, i.e. of the relative weight to be attached to such items as labour, repairs and maintenance, fuel, light, equipment, books, tools, etc, and – on the labour cost side – to the different types of staff employed.

A nationwide survey was not feasible during the period when local government reorganisation in England and Wales was being planned and then put into effect. The Central Statistical Office, however, in cooperation with local authority representatives has recently conducted a pilot survey among the London Boroughs, in respect of 1973/74, aimed at identifying the problems to be overcome in mounting a fuller survey when circumstances permit.

A report on the pilot survey is now available on request from the Central Statistical Office (Mr K R Perry 01–930–5422 Ext 186). The survey shows that a fair amount of commodity detail is fairly readily accessible in the accounts of the London Boroughs. It identifies, however, a number of problem areas where reliable information in a satisfactory degree of detail is difficult to obtain. How best to proceed with the provision of suitable national indices of the prices of goods and services purchased is a matter currently under discussion between the Local Authority Associations and Government Departments.

New banking statistics

An article in the Bank of England's June 1975 Bulletin describes the background to the introduction of the new system of statistical reporting by listed banks which is being introduced during the course of this year. It also explains the salient features of the new system and how the new information will be presented in the tables published in the statistical annex to the Bulletin.

Balance sheets for investment trust companies

An article in the Bank of England's June 1975 Bulletin is one of a series of articles presenting national balance sheets. Articles giving figures for the deposit banks and the banking sector as a whole have already been published, and the article in the current Bulletin covers figures for investment trust companies, statistics for which are regularly collected by the Bank.

Copies of the Bank's Bulletin may be obtained free of charge from:

Economic Intelligence Department,
Bank of England,
EC2R 8AH.

Rates and rateable values

The first publication of 'Rates and Rateable Values' for the new local authorities in England and Wales will be issued shortly. The publication will be revised to reflect the re-organisation of the local authorities and will also be extended to include details of the distribution of rate support grant among local authorities.

Reference

Rates and Rateable Values in England and Wales 1974/5 (HMSO) forthcoming.

OVERSEAS FINANCE

An inventory of United Kingdom external assets and liabilities – end-1974

An article in the Bank of England's June 1975 Bulletin continues the annual series of estimates of the United Kingdom's external assets and liabilities, and gives figures for the end of 1974.

Copies of the Bank's Bulletin may be obtained, free of charge, from:

The Economic Intelligence Department,
Bank of England,
EC2R 8AH.

Aid flows in 1974

The gross official flows from the United Kingdom to developing countries in 1974 amounted to 386·7 million pounds compared with 312·2 million pounds in 1973. Receipts of amortization in respect of past loans rose to 43·8 million pounds and net official flows were thus 342·9 million pounds compared with 270·9 million pounds in 1973. Estimated Gross National Product based on the definitions agreed internationally for aid reporting was 80,953 million pounds in 1974. Net official flows therefore represent 0·42 per cent of GNP compared with 0·38 per cent in 1973.

There is an internationally recognised target of 0·7 per cent of GNP for net official development assistance, (oda) which are those official flows which meet the development motivation and concessionality criteria agreed within the Development Assistance Committee of OECD. Total net oda from the United Kingdom in 1974 amounted to 308·6 million pounds which represents 0·38 per cent of GNP compared with 245·8 million pounds or 0·34 per cent of GNP in 1973.

Grants totalling 213·8 million pounds accounted for 60·7 per cent of gross disbursements of oda. The balance of 138·5 million pounds being made up of concessional loans. Net bilateral aid amounted to 217·7 million pounds which represented 70·5 per cent of oda, the remaining 29·5 per cent being disbursed through various multilateral agencies. Total net financial aid, both bilateral and multilateral amounted to 218·8 million pounds or 70·9 per cent of oda, the remaining 29·1 per cent being in the form of technical assistance.

Table I contains the main aggregates of the UK official aid for 1973 and 1974. Full details of these flows and estimates of private flows appear in *British Aid Statistics*. The next edition covering the years 1970 to 1974 will appear towards the end of the year.

The Chairman of the Development Assistance Committee of the OECD has recently announced provisional figures for official development assistance and total flows of resources to developing countries from DAC member countries in 1974. Net provision of official development assistance increased by about 20 per cent

in 1974 to 11·3 billion dollars. This corresponds to 0·33 per cent of their combined GNP compared to 0·30 per cent in 1973. Because of inflation the real increase in resources is estimated at about 10 per cent.

Total flows including private flows for which some countries including the United Kingdom can only provide very crude estimates at this time, rose by 8 per cent to a record 26·3 billion dollars. However, because of inflation, this increase in dollar terms was equivalent to a decline of 2 per cent in real terms.

Flows from individual DAC member countries are set out in Table II. Full details of these flows will be published in the DAC Chairman's Report: Development Co-operation later in the year.

Official aid flows 1973 and 1974

Table 1

£m

	Gross disbursements						*Amortization*		*Net flows*	
	Grants		*Loans*		*Total*					
	1973	*1974*	*1973*	*1974*	*1973*	*1974*	*1973*	*1974*	*1973*	*1974*
Official development assistance	179·5	213·8	107·7	138·5	287·2	352·3	41·3	43·7	245·8	308·6
Bilateral total	115·1	124·1	106·4	137·2	221·5	261·3	41·2	43·6	180·3	217·7
Of which: Financial aid	42·5	47·7	106·4	137·2	148·9	184·9	41·2	43·6	107·6	141·3
Technical assistance	72·6	76·4	–	–	72·6	76·4	–	–	72·6	76·4
Multilateral total	64·4	89·7	1·2	1·3	65·7	91·0	0·1	0·1	65·6	90·9
Of which: Financial aid	52·3	76·3	1·2	1·3	53·5	77·6	0·1	0·1	53·4	77·5
Technical assistance	12·1	13·4	–	–	12·1	13·4	–	–	12·1	13·4
Other official flows	20·9	23·6	4·2	10·8	25·1	34·4	x	0·1	25·1	34·4
Total official flows	200·4	237·4	111·9	149·3	312·2	386·7	41·3	43·8	270·9	342·9

x less than half final digit shown.

Flows of resources from DAC members countries 1973 and 1974

Table II

DAC donor country	*Official development assistance*				*Total net flows*				*Grant element*(1) *percentage of oda programme*	
	$(US)m.		*percentage of GNP*		$(US)m.		*percentage of GNP*			
	1973	*1974*	*1973*	*1974*	*1973*	*1974*	*1973*	*1974*	*1973*	*1974*
Australia	286	430	0·44	0·55	354	544	0·55	0·69	99·4	99·4
Austria	40	60	0·15	0·18	144	203	0·53	0·61	57·4	(79·2)
Belgium	235	261	0·51	0·49	479	(588)	1·04	(1·10)	95·6	(95·8)
Canada	515	689	0·43	0·48	1,104	1,669	0·93	1·17	94·1	97·2
Denmark	132	168	0·48	0·54	196	191	0·72	0·61	96·1	94·4
Finland	28	38	0·16	0·18	27	60	0·16	0·29	. .	86·7
France	1,488	1,527	0·58	0·56	2,800	3,145	1·10	1·15	91·2	88·7
Germany	1,102	1,435	0·32	0·37	1,790	3,177	0·51	0·83	85·7	84·5
Italy	192	195	0·14	0·13	645	(650)	0·47	(0·43)	69·3	96·3
Japan	1,011	1,126	0·25	0·25	5,844	2,962	1·44	0·66	67·9	61·8
Netherlands	322	429	0·54	0·62	612	899	1·03	1·30	88·4	86·8
New Zealand	29	37	0·26	0·28	36	46	0·33	0·35	98·5	100·0
Norway	85	131	0·42	0·57	93	186	0·47	0·81	99·8	100·0
Sweden	275	402	0·56	0·72	360	640	0·73	1·15	98·6	99·3
Switzerland	65	67	0·16	0·14	299	(300)	0·73	(0·64)	93·0	. .
United Kingdom	603	722	0·34	0·38	1,145	1,500	0·65	0·79	86·6	86·4
United States	2,968	3,545	0·23	0·25	8,346	9,491	0·64	0·68	89·9	90·8
	9,376	11,262	0·30	0·33	24,275	26,252	0·78	0·77	87·4	(86·8)

(1) Based on Commitments Symbols used: Estimated ( ) Not available . .

PUBLICATIONS

Social and economic trends in Northern Ireland No. 1 1975
The Department of Finance, Northern Ireland has published a Northern Ireland Economic Report annually for the past ten years. This has been replaced this year with *Social and Economic Trends in Northern Ireland*, reflecting the increased interest in both social and economic values and relationships.

This publication has two main aims

- to provide a broad and readable account of social and economic events that does not depend on texts and tables of numerical data. The presentation, therefore, is based mainly on simple graphs and charts (some using colour) illustrating trends over time, and, in some instances comparison with other parts of the United Kingdom.
- to provide, for those who require further analysis and detailed information for their own researches, references to the various Departmental Statistical publications that already exist.

This issue begins with a commentary on some of the major social and economic problems in Northern Ireland. This is followed by sections, in diagrammatic form, dealing with income and employment, groups of the disadvantaged in Northern Ireland, housing conditions, the use of time and money and, finally, planning for tomorrow.

It is intended that the publication, prepared by the Statistics and Economics Unit of the Northern Ireland Department of Finance, will be produced annually.

Reference
Social and Economic Trends in Northern Ireland No. 1 1975. June 1975 (HMSO Belfast) (Price £2·50 net).

British Gas Corporation
The Third *Annual Report and Accounts of the British Gas Corporation* for the financial year 1974/75 has recently been published. The report is in a similar form to those of the previous two years, summarising in the body of the report the main events and results for the year. Appendix II gives statistics for the industry from 1965/66 to 1974/75 and Appendix III gives statistics for the Regions for 1974/75.

Reference
Annual Report and Accounts of the British Gas Corporation (HMSO) (Price £1·50 net).

The United Kingdom in figures
The 1975 edition of United Kingdom in Figures is now available from the Central Statistical Office.

This free folding card shows at a glance some of the major changes in Britain since the 1950's. Nearly one hundred and forty statistical series span the years 1951, 1969, 1973 and 1974. They cover population and vital statistics, employment, education and health, and – for the first time – there are sections on the environment, leisure, law and on energy, as well as a whole page devoted to the nation's accounts 1974.

The card is intended as a useful and durable aide-memoire. If you would like copies write indicating the number required, to:

Press and Information Section,
Central Statistical Office,
Great George Street,
London SW1P 3AQ.

INTERNATIONAL

United Nations international comparison project
A report on the first phase of the United Nations' international comparison project was published in June. The aim of this work is to enable valid comparisons to be made between different countries of gross domestic product and the purchasing power of their national currencies. The inadequacy of official exchange rates for converting estimates in national currencies to a common basis of valuation has long been recognised and the results of the United Nations' study enable more meaningful comparisons to be made. The study, which covers ten countries in the year 1970, shows that relative to the United States, per capita incomes are higher than the figures obtained by correcting gross domestic products to a common currency by the use of exchange rates.

Reference
A system of international comparisons of gross product and purchasing power, 1975 (published for the World Bank by the John Hopkins University Press).

Munich centre for advanced training in applied statistics for developing countries
Following the successful course on Industrial Statistics held last year at the Munich Centre and described in an article by Mr K V Henderson (*Statistical News* 27.6) it has been agreed that the sixth course planned for later this year will also be held in the English language. The course will take place between 1 September and 19 December and is entitled 'Demographic sample surveys'. The core of the course will consist of lectures and case studies on basic concepts of demographic statistics; sampling theory; types of sample surveys; organisation of sample surveys; types and sources of errors; and tabulation and presentation of results. In addition, students will make field trips to discuss demographic statistical work in a number of EEC

countries including the United Kingdom and be given lectures on the importance of demographic statistics in relation to other statistics and on the work of the World Fertility Survey.

Invitations have been sent to the statistical offices of twenty-six English speaking countries in Africa and the Caribbean and it is hoped that there will be about twenty participants for the course, which will provide training in a most important subject for the development of developing countries' statistical services.

The Centre, established jointly by the EEC, the Government of the Federal Republic of Germany and Centre Européen de Formation des Statisticiens Economistes des Pays en Voie de Developpemente, Paris, is financed partly by the German Government and partly by the EEC. For the sixth course, which is similar in content to the fifth held earlier in the year in the French language, many of the visiting lecturers will be from the Government Statistical Service, and institutes in the United Kingdom.

Reference

Applied Statistics for developing countries: *Statistical News* (27.6) (HMSO) November 1974 (Price 40p net).

SURVEY CONTROL UNIT

Surveys assessed

The table below shows the numbers of surveys assessed in the second quarter of 1975, in terms of the description given of the gradings used in the brief article in *Statistical News* (21.15).

Surveys assessed during 2nd quarter 1975

Type of survey	*Initial grading*				*No grading given*	*Total*
	Unrecognised	*Under consideration*	*Provisionally recognised*	*Fully recognised*		
Small *ad hoc*	–	16	18	58	15	107
Other *ad hoc*	–	1	5	7	10	23
Continuous	–	1	1	19	2	23
Total	–	18	24	84	27	153

Thirty nine per cent of these one hundred and fifty three surveys were already in the field. The remaining 61 per cent were new surveys, which compares with 45 per cent of new surveys in the corresponding quarter of 1974, although the total of the surveys for that quarter was two hundred and thirty three.

The total includes fifty four surveys from various divisions of the Department of the Environment, including twenty two undertaken or sponsored by the Transport and Road Research Laboratory. However, most departments have contributed at least one new survey.

Of the eighteen surveys graded 'under consideration', six have since been upgraded and further details are expected for the remainder.

GOVERNMENT STATISTICAL SERVICE

Birthday Honours

Mr W Rudoe Director of Statistics and Research in the Department of Health and Social Security was awarded the CB.

Appointments and changes

Central Statistical Office

Mr M V Wilde, Chief Statistician, Ministry of Defence, has transferred to the Central Statistical Office to fill the vacancy in Branch 7.

Ministry of Defence

Mr H J M Jones, Chief Statistician, Office of Population Censuses and Surveys, has transferred to the Ministry of Defence to head Manpower Statistics Division vice Mr Wilde.

Mr R J Scott, Statistician, Department of the Environment, has been promoted to Chief Statistician on transfer to the Ministry of Defence to fill a new post at this level.

Office of Population Censuses and Surveys

Mr D Newman, Statistician, has been promoted to Chief Statistician and will fill the vacancy arising from the transfer of Mr Jones.

Home Office

Mr J R Williams, Statistician, Lord Chancellor's Office, has been promoted to Chief Statistician on transfer to the Home Office, Tolworth. Mr Williams will fill the vacancy in Statistical Division 2.

Department of Health and Social Security

Mr J B Dearman, Statistician, Department of Industry, has been promoted to Chief Statistician on transfer to the Department of Health and Social Security. Mr Dearman will fill the vacancy arising from the retirement of Mr D Evans.

Retirement:

Mr D Evans, Chief Statistician from the Department of Health and Social Security.

Statistical survey of industrial fuel and energy use

The results of a survey by the Confederation of British Industry and the Department of Energy into industrial fuel and energy use are contained in a report published on 1 July.

The report *A Statistical Survey of Industrial Fuel and Energy Use* is based on replies to a questionnaire sent to industrial members of the CBI. It gives information on:

Fuel consumption by type of industry and size of establishment
the types and quantities of fuels used for specific purposes such as process heat and space heating
patterns of past and projected fuel changes
fuel stocks and stocking capacities
industries' opinions on energy investigations carried out by consultants and their own staff
the relationship of energy consumption and costs to cost of goods sold

The questionnaire was drawn up jointly by the CBI and the Department of Energy and was sent to about four thousand seven hundred firms on 1 July 1974. About fifteen hundred completed questionnaires were returned and of those one thousand two hundred and fifty (including sixty three from non-manufacturing industries) were suitable for computer analysis by the Department of Energy. The survey should be a useful background for future work on industrial energy consumption.

A summary of the processed results is published in ten pages of explanatory text and twenty pages of tables.

The survey was originally designed to provide a data base for use by the Government and CBI in considering energy policy planning and its effects on an industry, and emergency measures. Because of the interest shown by industry and organisations it was decided to publish a selection of the results of the survey. Additional information will be available under special data processing contracts. The confidentiality and identity of individual replies to the survey will be preserved.

The survey – price £2·00 – is available from the Print and Publications Departments, Confederation of British Industry, 21 Tothill Street, London SW1H 9LP.

List of Principal Statistical Series and Publications

1974 EDITION

Amendment list no. 4 — April to June 1975

Introductory note

The *List of Principal Statistical Series and Publications*, first published in 1972, has been revised. In the 1974 edition, published in November 1974 (HMSO Price 80p net), it is stated that details of important amendments and additions to the list will appear quarterly in *Statistical News* thus enabling users to keep their copies up to date. Accordingly a list of amendments, covering the period from April to June 1975 is given below. Off-prints of this list can be obtained from the Central Statistical Office, Telephone: 01–930 5422, extension 545.

Amendments to Part 1. List of Principal Series

Population and vital statistics *Page*

1. Population Statistics 1

(a) Census of population figures

Insert the following sentence after the sentence ending '. . . and statistics of both occupied and unoccupied dwellings'.
A further series of reports is currently being published which gives much of this information for the new counties and districts as constituted on 1 April 1974, there being one volume for each new county.
Add footnote (2) to Age, marital condition and general tables, Household composition tables.

Social Statistics

1. Electoral Statistics 3

(b) Parliamentary and local government electors and votes cast at by-elections and local elections

Delete *Statistical Review of England and Wales, Part II*
Insert *Electoral Statistics 1974*
OPCS Monitor, Reference EL
Delete text
Insert the following paragraph
Electoral Statistics is one of a new series of annual publications issued by the Office of Population Censuses and Surveys replacing tables previously published in the *Registrar General's Statistical Review* (*Parts I and II*). It contains figures of Parliamentary and local government electors in constituencies and local government areas of England and Wales at county and district levels. Figures for Scotland and Northern Ireland are also included.

3. Health and Personal Social Services 4

(b) Deaths by cause

Insert the following new entry after *OPCS Monitor Reference WR*
Monthly *OPCS Monitor Reference DH4*
Insert the following sentences before existing text:
OPCS Monitor Reference WR which superseded the *Weekly Return of the Registrar General for England and Wales in* January 1975 gives weekly deaths by cause and age cumulative totals from first week of the calendar year. *OPCS Monitor DH4* gives deaths from accidents by cause, sex and age.

(c) Abortions

Amend the text to read as follows:
Monthly figures for England and Wales are given in the *OPCS Monitor*, *Reference AB* and quarterly figures appear in the *Quarterly Returns* for England and Wales and for Scotland. Annual summary figures for Scotland are given in the *Scottish Abstract of Statistics*.

Transport and Communication

2. Road transport 14

(b) Numbers of road vehicles; new registrations

Add to list of publications:
Census *Census 1971, England and Wales,*
Years *Availability of Cars.*
Add to first paragraph of text:
The availability of cars report from the 1971 Census gives data on number of cars per household for the country as a whole and by region and local authority area.

Amendments to Part II. List of Publications

Page 34

Delete symbol (4) against Business Monitor PQ101

Page 37

PA1000 Provisional Results for the 1972 Census, 35p
Add after this entry, the following new entry:
PA1004 1971 Input-Output tables for the United Kingdom, £2·00

Page 40

PA1002(4) Summary tables
Add after this entry the following new entry:
PA1003(A) Analyses of United Kingdom manufacturing (local) units by employment size 82p
SD9 Computer services
Add after this entry the following new entry:
SD10 Part 1 Retail outlets (establishment tables) £1·60
Delete symbol (4) against **Business Monitor PA403**
SD10 Part 1 Retail outlets (establishment tables)
Add after this entry the following new entry:
SD16 Part 7 Area Tables. East Anglia Region £1·05

Page 41

Census 1971, Great Britain, Economic Activity Part I (100%)
Add after this entry the following new entry

Census 1971, Great Britain, Economic Activity Part II (10% sample) £5·45	Quinquennial	Office of Population Censuses & Surveys	1

Census 1971, England and Wales, County Reports
Add after this entry the following new entry
Census 1971, England and Wales, New County Reports (8) (9)

Census 1971, Scotland, Gaelic Report
Add after this entry the following new entry

Census 1971, Scotland, Household composition Tables (10% sample) £5·75	Quinquennial	GRO (Scotland)	1

Election Expenses (General Election of June 1970)
Add after this entry the following new entry

Electoral Statistics, 1971, 65p	Annual	Office of Population Censuses & Surveys	3

Page 42

General Household Survey Introductory Report
Add after this entry the following new entry

General Household Survey, 1972, £5·00	Annual	Office of Population Censuses & Surveys	*

Page 43

OPCS Monitors
After **Reference AB** insert the following new entries

Reference DH4	Monthly	4
Reference EL	Annual	3

Page 44

Statistical Review of England and Wales
After £4·43 insert
1973, Part I A Tables, Medical, £2·75
Before Part II Tables insert
1973
Delete £2·75 Substitute £2·95
Scottish Educational Statistics
Delete £2·50 (1972) Substitute £3·70 (1973)
Statistics of Education Volume 2 School leavers, GCE and CSE
Delete £1·70 (1972) Substitute £3·00 (1973)
Statistics of Education Volume 6, Universities
Delete £2·90 (1971) Substitute £4·75 (1972)

Page 45

Weekly Return for England and Wales
Delete entry

Amendments to Part III Subject Index

Page 46

Accidents
After aircraft insert deaths from 4

Page 50

Population, 'Estimated future'
delete 'Estimated future' 2
insert Estimates 1

Alphabetical Index

The index to *Statistical News* covers the last nine issues. Page numbers are prefixed by the issue number e.g. 26.31 signifies issue number 26, page 31.

Generally speaking articles relating to United Kingdom, Great Britain, England and Wales or covering several geographical groups are not indexed under these groups, but topics with a significant regional interest are indicated e.g. regional earnings. Articles and notes dealing particularly with Scottish statistics are indexed under 'Scotland' as well as the topic, e.g. 'Scotland, population projections', and similarly for Wales and Northern Ireland.

The following conventions have been observed in printing this index: references to items appearing in articles are shown by (A); italics are used for the titles of published books or papers.

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