NATIONAL INSTITUTE OF ECONOMIC AND SOCIAL RESEARCH

8

CSO

FEBRUARY 1970

HMSO 6s 0d [30p] net

STATISTICAL NEWS

Developments in British Official Statistics

Note by the Editor

H. E. Bishop

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

It is hoped that *Statistical News* will be of service and interest not only to professional statisticians but to everybody who uses statistics. The Editor would therefore be very glad to receive comments from readers on the adequacy of its scope, coverage or treatment of topics and their suggestions for improvement.

Policy on *Statistical News* is decided by the Advisory Committee for Policy on Central Statistical Office Publications whose members are

Prof. C. A. Moser	Central Statistical Office (*Chairman*)
Mr. J. Stafford	Board of Trade
Mrs. E. H. Boothroyd	H.M. Treasury
Mr. M. Reed	General Register Office
Mr. W. Rudoe	Department of Health and Social Security
Mr. A. R. Thatcher	Department of Employment and Productivity
Mr F. J. Atkinson	Ministry of Technology
Mr. P. Redfern	Department of Education and Science
Mr. A. H. Watson	Ministry of Transport
Mr. H. E. Bishop	Central Statistical Office
Mrs. E. J. Donovon	Central Statistical Office
Mr. B. L. Mower	Central Statistical Office (*Secretary*)

Enquiries about this publication should be addressed to:
The Information Officer,
Central Statistical Office,
Great George Street,
London, S.W.1.

Subscriptions and sales enquiries should be addressed to Her Majesty's Stationery Office at P.O. Box 569, London S.E.1 or any of the addresses listed on back page of cover

CENTRAL
STATISTICAL
OFFICE

FEBRUARY 1970

Statistical News No. 8

Developments in British official statistics

LONDON
HER MAJESTY'S STATIONERY OFFICE

Contents

NOTES ON CURRENT DEVELOPMENTS

*Indicates that the contribution refers to work outside the Government service but is included because of its relevance to Government statistical work.

Articles in recent issues of *Statistical News*

No. 4 February 1969

Statistical and business research in the Post Office	S. Wood
The Central Register of businesses	L. S. Berman
Public expenditure statistics	P. M. Rees
Supplementary benefits	F. E. Whitehead
Population Census pre-test, 1968	A. A. Cushion

No. 5 May 1969

The Census of Production	H. E. Browning
International systems of national accounts	R. E. Beales
The role of population projections in planning activities	Miss J. H. Thompson
Sickness and injury benefits	F. E. Whitehead

No. 6 August 1969

British associations with the International Statistical Institute	Sir Harry Campion
Printing and publishing: a new inquiry	A. A. Sorrell
Changes envisaged in the agricultural census for England and Wales	P. G. Horscroft
Measuring self-sufficiency in food and agricultural products	A. H. J. Baines and L. J. Angel
Seasonal adjustment of economic time-series	R. L. Brown

No. 7 November 1969

37th Session of the International Statistical Institute	
The Prime Minister's speech at the International Statistical Institute banquet on 10 September 1969 at Grosvenor House	
Census of Distribution 1966	J. R. L. Schneider and J. C. Suich
Great Britain population projections by marital condition	J. R. Watts
The needs for statistics of the plastics industry	A. A. Sorrell

Strengthening Federal statistics

Address of **Julius Shiskin,** *Assistant Director for Statistical Policy, Bureau of the Budget,* before the Annual Meeting of the Federal Statistics Users' Conference, Washington, D.C., November 1969

[*The United States, like the United Kingdom, has a decentralised statistical system. The following Address by the new Head of the Office of Statistical Policy, which we are very pleased to be able to reprint by kind permission of the author, is interesting in that it shows how much common ground there is between our two countries, both in the problems they are facing and in the steps being taken to deal with them.*—Editor.]

The charter I was given when I took charge of the Office of Statistical Policy in June was short: 'Strengthen the Federal statistical system'. We have taken some steps to strengthen the Office of Statistical Policy which serves as the central statistical office for the Federal agencies, and we are developing a plan for improving the statistics collected by these agencies. I should like to tell you about our progress in these efforts during the past five months.

Strengthening the Office of Statistical Policy

The Federal statistical system is decentralized with statistical services being conducted in many different departments spread throughout Government. This contrasts with much more centralized systems in many other countries. A centralized system has advantages associated with the efficiencies of large-scale operation while a decentralized system has advantages arising from greater flexibility in developing new and varied statistical projects tied to the changing policy needs of the departments.

For a decentralized system to operate efficiently, however, there must be an effective central office to guide and co-ordinate the programs and activities of the separate statistical agencies. This is necessary so that the separate statistical agencies can work consistently without duplication, without imposing an undue burden on the reporting public and at the same time meet the pressing statistical needs of the nation. A strong central office can also take advantage of opportunities to place new projects and transfer existing projects to agencies with adequate data processing facilities and sympathetic leadership.

When such guidance is effectively performed, benefits accrue to respondents, to users, and in large part to the agencies concerned – in other words, to all who participate in the joint enterprise of providing interrelated information for intelligent decision making. The conclusion is clear that for all participants to work in harmony, careful and continuous surveillance and leadership by a strong central policy office is required.

Every department in the U.S. Government has significant statistical activity. In addition, a number of independent agencies are involved in sizeable statistical undertakings. OSP must deal with all of these.

OSP performs in the role of a central statistical office pursuant to the legal responsibility of the Budget Bureau under two Acts of Congress.

- The Federal Reports Act of 1942 empowers the Director of the Bureau of the Budget (1) to investigate the needs for information; (2) to investigate the methods used by Federal agencies in obtaining such information; and (3) to co-ordinate the information-collecting services of all Federal agencies with a view to reducing the cost to the Government of obtaining such information and minimizing the burden upon business enterprises and other persons.
- The Budget and Accounting Procedures Act of 1950 authorizes and directs the President, through the Director of the Bureau of the Budget, to develop programs and to issue regulations and orders for the improved gathering, compiling, analyzing, publishing, and disseminating of statistical information by Federal agencies, and further directs that such regulations and orders shall be adhered to by such agencies.

Several steps have been taken to strengthen the Office of Statistical Policy so that it can more effectively operate as Government's central statistical agency. Furthermore, the responsibilities of the Office are likely to expand over the next few years as efforts are made to implement the Director's order of June 25, 1969, to establish a unified statistical program and budget which reflects changing needs of policy and analysis.

At the time of my appointment last June, the Director assigned to the Office of Statistical Policy the responsibility for developing a unified Federal statistical program to be used as '. . . a primary basis for decisions on individual budget submissions.' The rationale of such a plan is that the budget provides an effective focal point for considering the overall needs for statistics in the light of the uses to which they are put and for balancing the merits of various statistical programs against one another in allocating funds.

Thus, suppose a decision is made to expand productivity statistics. Additional funds must then be allocated to several different agencies, e.g. the Census Bureau and the Office of Business Economics for statistics on shipments and inventories, and the Bureau of Labor Statistics for statistics on employment, payrolls and manhours and the compilation of productivity statistics. The trade offs for budget and personnel ceilings among different statistical programs will, in the future, determine agency statistical budgets rather than having them fixed primarily in relation to, and in competition with, funds appropriated for substantive programs. The needs for statistics to guide decision-making in Government action programs, such as manpower and poverty, must be given heavy weight in selecting statistics to be included in the unified budget.

There are good reasons, however, for taking other factors into account. For one thing, since program statistics are also helpful in determining the needs for new action programs, and the costs at various levels of magnitude, it is important to anticipate the requirements for such data. Similarly, historical series are essential in interpreting the effects of new action programs. Finally, most program statistics also serve other purposes.

While there is no neat way of assigning appropriate weights to the special program and general purpose uses of statistics, judgments of their relative importance must nevertheless be made. For all these reasons, consideration of all Federal statistical programs in a unified budget is advantageous.

Although the first full-scale effort to establish a unified statistical budget will not take place until next year, in the fiscal year 1972 budget, a beginning has already been made. Requests for funds for statistical programs for fiscal year 1971 were reviewed systematically in OSP and Budget Director Mayo held a 'cross-cut' session at which he considered funds for the statistical program as a whole.

This is an innovation of considerable promise for Federal statistical programs. The Special Analysis of Principal Federal Statistical Programs contained in the Budget will no longer be just a summation of individual agency decisions. Rather, it is to be an expression of a considered effort to allocate resources for statistics in accordance with the Government's most urgent needs for information in the light of the prevailing budget constraints.

A unified statistical budget is possibly the most influential vantage point from which to help in the development of a strong statistical system.

We have also instituted a new inter-departmental committee structure which enables us to take a statistical problem from its inception in a data producing or a data using agency to the top level of Government. The advantage of this new structure is that, unlike the standard Departmental pattern, all the persons involved at each stage of deliberations have a major interest in statistics.

We are also in the process of increasing our professional staff about 20 per cent, which will go only part way in restoring reductions of past years. The new staff is already helping to carry out our continuing work more effectively and in getting new work under way.

Strengthening Federal statistics

The success of OSP efforts ultimately depends upon the success of the statistical producing agencies, and we continue to work actively with these agencies in the development of their statistical programs. Our top priorities are described in the remainder of this paper. For convenience, I shall divide my discussion into two parts, social statistics and economic statistics, though we all recognize there are important overlaps between these two categories.

Social statistics

There is a keen awareness at the highest levels of the Nixon Administration of the need for a set of social indicators which would provide analogous data for analyzing and understanding the society as the economic indicators today help in understanding and guiding the economy.

At present we are a long way from the development of current social indicators which can fulfil such expectations. However, we do now have a significant amount of data which does deal with important aspects of our society, and which provide a nucleus upon which a comprehensive and problem-oriented data base can be built up. We, therefore, are trying to develop a new periodic statistical publication, which would facilitate the analysis of social problems, improve the basis for forecasting social trends, point up significant statistical gaps and lead to steps to fill these gaps. In the process, we hope to broaden the participation of social scientists in the interpretation and analysis of social trends and in the development of programs to improve the quality of life. This publication will also serve as a data base for policy-oriented analytic and interpretive studies and reports to be prepared by the White House staff and other Federal analytical agencies.

We have begun our job by examining carefully, in conjunction with several major statistical agencies of the Government, the data now being collected. We hope to select series and outstanding single-time studies which are timely, relevant, and informative for these purposes. We intend to make our periodic report brief, of standard format, and without policy-oriented comment. The measures included will be selected and organized so as to elucidate major social problems, such as poverty, health, public safety, and education. To the extent that data are available, the series in each section will be classified in three groups: measures of performance, predictors of social change, and analytical and explanatory measures. Eventually, we hope to have a substantial number of series in each of these categories. Simply by directing attention over time to a continuing set of such measures in particular social areas, the report would perform an important function.

While the area of social statistics has been rapidly expanding in recent years, the number of statistical series that are directed to measures of performance, and to the condition of society, are quite limited. We have numerous statistics on the inputs into governmental programs, but many fewer on direct program results, and even fewer on the indirect effects on the general population. For example, we know quite a bit about the amount of money going into school districts through various Federal programs, and about the number of teachers, and the number of buildings being built, but we know little about what children are learning, how well, and whether they are learning more now than in the past.

A product of our efforts to produce the social statistics publication will be a register of all the series available. By maintaining a high standard of selectivity from this list for the publication, we expect that the key indicators will become widely known and understood, and the areas where key indicators are missing will become obvious. Once this situation is clearly recognized, it will be easier for the agencies to improve their statistical programs and to direct their data collection efforts to those areas of most concern to the public. In a sense, then, the proposed statistical publication is only a beginning in a major effort to review and improve our social statistics, to make them more pertinent to our major social problems and conditions, and to establish a workable data base on which a comprehensive system of social indicators may someday be constructed.

We are just beginning this difficult venture. It will take us many months to develop even a rough draft to distribute for review and discussion. Please do not look for early publication.

Economic statistics

Although economic statistics have had a long history of usefulness as indicators of current conditions and the short-term outlook, they continue to grow in importance. Greater public expectations have raised the requirements for vigorous and steady economic growth accompanied by price stability. Consequently, the pressures for better economic policy actions and, in turn, the pressures for better statistics upon which to base such actions have been accelerated. Important major decisions on monetary or fiscal policies are based partly on recent statistics for key economic indicators. Such decisions are made by the President after discussion with his economic advisors who usually conduct series of reviews of emerging problems in the light of current economic intelligence. At critical junctures, improvements in judgments arising from better economic statistics can involve billions of dollars and the employment of hundreds of thousands of persons.

I shall provide only one of many possible illustrations of the great importance statistics may have in economic policy decision making. During the past two administrations, perhaps the most important single guide to fiscal and economic policy formulation was the concept of the gap between potential and actual output, as measured by GNP. It was reasoned that when there is a substantial gap, expansionary policies are necessary. When the gap is closed or negative, moderate or restrictive policies are appropriate. Even after several years of expansionary policies, early in 1965 the gap still appeared stubborn and unyielding and in this light, further expansionary policies seemed to be in order. Further measures were, therefore, taken to reduce the gap. But while the economic policy makers were trying to wipe out the gap during most of 1965 with fiscal and monetary policy actions, the statisticians quietly and unceremoniously wiped it out with data revisions. Instead of stimulating a sluggish economy, these misguided policy actions had the effect of overheating an already bubbling economy. While there were, no doubt, other important factors which contributed to this development, economic policy would have been better served if the data had been more accurate to begin with and released more promptly. While some revisions will always be necessary, it is obvious from this example that we must not relax our efforts to improve the timeliness and quality of the basic economic statistics that are used in building up the estimates of GNP.

Another lesson to be learned from this experience is that economic policies must be geared to the levels of accuracy of the statistical tools upon which they rely. Derived analytical measures, such as the gap between actual and potential output (a small difference between two large aggregates) may bring undesired results if steps are not taken to assure that the data elements used are up to the levels of accuracy required.

Improving basic economic statistics

Our economic statistics program will be focused on two objectives: improvement in the GNP accounts and in the timeliness and accuracy of the current indicators. There will, of course, be other statistics that do not fit into these categories, for example, the job vacancy statistics, which will also have to be given high priority.

The most important steps in improving the GNP accounts is to develop data based upon measurement where 'guesstimates' must now be made. While I suppose, it is still possible to improve on the present methods of making such 'guesstimates', the most important thing by far that can be done to improve the GNP accounts is to support OBE efforts to obtain more accurate, more detailed, more comprehensive, and more up to date statistics for the components.

Another way in which we can do much to improve the GNP component data now being collected by Federal statistical agencies is through establishment of a Federal industrial directory. Under our present decentralized system, each agency is responsible for data collection relating to its own program responsibilities, and, under existing confidentiality requirements, each Federal agency which conducts statistical surveys has ordinarily been obliged to compile and maintain its own mailing lists of companies and establishments without the advantage of information available in other agencies. This situation has resulted in serious problems of uncertain comparability of data and of duplication of costs and paper work both by Government agencies and by business.

For example, the monthly time series on labor cost per unit of manufacturing output, which must depend upon output data from two agency sources (Census–FRB) and labor input data from two others (BLS–OBE) is vulnerable to a wide range of coverage, sample design, reporting, classification, and processing errors from these several sources, with the result that the interpretation of statistically significant month-to-month changes in the series becomes exceedingly difficult. Similar difficulties arise when comparisons of annual series for identical data items in identical industries are attempted among several agencies' published totals (e.g. number of firms, establishments, employment, payroll, man-hours, business receipts, inventories, new capital expenditures, value of fixed assets, etc.).

One partial solution has been the development of the Standard Industrial Classification system, but the applications of the codes by the several agencies still leave open the question of comparability and do nothing to decrease effort and costs. A master mailing list, properly codified, would seem to be the best solution. The major obstacle to the development of a directory from which mailing lists could be derived for various data collection purposes is the already cited confidentiality requirements of the several agencies. Thus, the Census Bureau has a detailed mailing list of a large segment of American business, but it cannot make such information available to other agencies.

In recent years, various public and private groups involved in the appraisal of the Federal statistical system have advocated the development of a Government industrial directory for statistical purposes. Last year, the Office of Statistical Policy formally asked the Census Bureau to accept focal responsibility in developing and maintaining such a directory on behalf of all Federal statistical agencies. Studies of various ways of making the Census data available to other agencies are under way. If new legislation proves to be necessary, we shall aid the Census Bureau in seeking legislative authority. As long as the U.S. statistical system is decentralized, a central industrial directory of establishments and companies will be a high priority objective.

Speedier and more accurate current economic indicators

Many statistical surveys in use today were designed at a time when the needs for statistics in Government and business policy making were much more limited than today. Consequently, requirements for both accuracy and speed were far less demanding than they are today. During recent years the demands upon statistical agencies have increased greatly, but most of the agencies have not had the funds to keep up with the rapid growth in the demand for new statistical information. Thus, the design of surveys now being used for such important indicators as retail sales, manufacturers' sales, orders and inventories, consumer prices, and unemployment must be reconsidered in the light of present needs for economic policy decision making. Redesign of these surveys will typically require the development of new techniques for expediting reporting on the part of respondents, faster processing, and substantial increases in sample sizes. All of these improvements will require more money. Too little money has been available to obtain the statistics required to meet the needs for economic and social policy decisions involving many billions of dollars. Upward adjustments in statistical budgets must be made to the extent that is reasonable in the light of the capabilities of the agencies to use the money effectively and of budget constraints needed to combat inflation. There may very well be some programs that have long since outlasted their usefulness. My impression is that a comprehensive review of the statistical bases has not been made in recent years. A new, vigorous effort to weed out the submarginal statistical programs is another higher priority item on our agenda.

Similarly, there may be, here and there, small pockets of statistical activities where modern data processing and publication facilities are not available.

It appears that we shall be able to identify these through our ongoing review of the release dates for current statistics. Through our authority under the legislation cited earlier, we intend to shore up such activities or transfer them to larger statistical units.

The elimination of submarginal statistical programs and high cost statistical operations would make it much easier to fund new statistical programs.

The principal use of current economic indicators is to interpret the current economic situation and to forecast underlying short-term trends. For these purposes the figures must not only be very accurate, but also must come out very promptly. Tardy or faulty statistics put the forecasters – and the policy makers who use their forecasts – in double jeopardy. They are subject both to forecasting errors, and to errors arising from uncertainty about the forecasting base. To borrow an analogy from Harold Macmillan, the former Prime Minister of Great Britain, the forecaster today is in a situation that a traveller would be in if he were to schedule an around-the-world plane trip on the basis of last year's timetables and if, in addition, the pilot of the plane were to proceed on the basis of last year's weather reports.

In recognition of this need, President Nixon sent a memorandum to the Director of the Bureau of the Budget on 8 February of this year requesting that action be taken to insure 'that the principal statistical series which are issued to the public by agencies, quarterly or more frequently, are released without unnecessary delay'. The Budget Bureau then set up guidelines for the release of the principal monthly and quarterly economic indicators: (1) compilation should be completed not more than 20 working days after the reference period, (2) the figures should be released not more than 2 days later, and (3) a schedule of release dates at least one calendar quarter ahead should be available to the public.

In order to maintain surveillance over agency practices in regard to prompt release of statistical data, the Office of Statistical Policy has developed a standard format for quarterly reports on agencies' principal statistical series. The agency reports show scheduled and actual compilation and release dates for each series as well as the agency schedule for the future. Reports are reviewed by OSP and series not meeting the guidelines are identified for examination and, if warranted, corrective action.

The reports received by our office for the third and fourth quarters of this year indicate that in many cases agencies have already made adjustments which have speeded up their releases. Thus, for 41 principal indicators, 26 have been speeded up since this program went into effect. As an example, this month (November 1969) the combined employment and unemployment release came out 20 calendar days after the reference period and 2 days after compilation was completed, as compared to 24 and 5 calendar days respectively for the same month last year.

Recognizing that there are differences between issuance times of releases and receipt of those releases at their destination, we should be interested in learning of the experience of FSUC members. Distribution can be a problem, and we want to identify and correct all sources of potential delays.

Government alone cannot do all that is needed, however, to speed up the release of statistical reports. Studies show that the principal cause of late releases is slow reporting by business concerns. Among the key indicators held up because of slow reporting by business concerns are manufacturing and trade inventories, manufacturers' shipments, construction expenditures, and corporate profits. Even in some cases where the Government releases a report early, such as retail sales, the figures are proving subject to large revisions, and prompter reporting by retailers is needed to maintain the degree of accuracy required. We have, therefore, asked the data gathering agencies to identify chronically late reporters and try to persuade them to speed up their reporting. We realize that earlier reporting may involve some additional costs to the business community and some shifting of their priorities, but we feel justified in making this request because business itself has a great deal to gain from more up-to-date figures.

There is also a question about the way in which current statistics should be released. The latest figures for many of the current indicators are first page stories in the press, for example, the unemployment rate, consumer prices, GNP, and the leading indicator summary index. The trends indicated by new figures often have implications for economic policy and the outlook.

The Government statistical agencies must continually strive to maintain neutrality and objectivity in the presentation of statistics. This posture is necessary to merit the confidence of the American public and of the Government's elected and appointed policy officials. The confidence of the public is required because, as individuals or business-men, they are the suppliers and among the chief users of the resulting data. The confidence of policy officials is essential because, whatever their points of view and political affiliations, they depend upon statistical officers who are career civil servants. The attainment of this objective requires that statistical agencies avoid policy-oriented interpretations of current developments, explanations of Administration economic policy, and forecasts of the economic outlook, which must, of course, have a bearing upon policy. We intend to continue to be alert to this problem in the interest of bringing the latest figures to the attention of the public promptly and effectively without jeopardizing the objectivity and neutrality of the statistical agencies.

The Office of Statistical Policy has also started a program to improve the accuracy of the statistics released. To this end we have instituted a study of revision practices, as a way of looking at the 'errors' in advance estimates. A survey of 23 principal indicators suggests that there are today no general practices or criteria for the issuance of preliminary or revised figures. The most common practice is to issue three successive estimates regardless of the magnitude of the revisions. Subsequent revisions in historical series are also made, particularly when benchmark adjustments are made and when seasonal factors are revised. However, some series are not revised at all after the initial appearance of the figures, while some continue to be revised as late as five years after the reference period.

We are trying to reduce the frequency and magnitude of revisions. These efforts to improve accuracy cannot, of course, be carried out independently of the goal to speed up the release of statistics. The need, therefore, is to set up guidelines which provide an optimum trade off between speed and accuracy, and we are actively at work with the statistical agencies to develop such guidelines.

Concluding observations

While OSP will be ever vigilant to the problems described above, we shall also be working actively on the broader policy issues: How can we meet the extensive and urgent requirements for statistical information while also preserving the privacy of individuals, the confidentiality of returns, and a reasonable level of reporting burden? What are the data implications of major new social programs, such as the welfare program recently proposed by the President? What are the implications for the organization of the Federal statistical system of new developments in data processing? What are the trends in the development of economic and social accounts, and how can the statistical data base be improved to meet their needs? While the trees we deal with are giant oaks, there is, nevertheless, a forest we must also continue to watch.

The American Statistical Association has recommended that the President appoint a Commission of distinguished citizens to review the entire Federal statistics program. This would be the first such review since the Hoover Commission Report more than 20 years ago. They would take a broad view of the problems I have described today and also cover other matters, such as the organization of the statistical activities in the Federal Government and the place, if any, of a national data center in the Federal statistical system. Although the OSP and the associated statistical agencies cannot stand still until such a review is completed, we nevertheless, would gladly accept guidance and recommendations from such a Commission.

The improvement of the statistical program to meet modern policy decision making and action programs is a tall order, especially in an environment of budget constraint. Perhaps the program I have described above cannot be accomplished ever; certainly, it cannot be accomplished quickly. But with advice and counsel from various outside groups, perhaps a Presidential Commission and certainly the Federal Statistics Users' Conference, I am confident that substantial progress can be made.

Industrial Statistics: the quarterly sales enquiries

R. W. Green, *Chief Statistician, Central Statistical Office*

Frequent reference has been made in recent official announcements to the reorganisation of industrial statistics on which the Government Statistical Service is now engaged. This reorganisation, the advantages of which were outlined in an article by J. Stafford in *Statistical News*, 1.7, consists broadly in comprehensive short-period statistics of industrial output allied to annual and less frequent enquiries on other information of the type traditionally collected in production censuses. A major feature of the short-period statistics will be quarterly enquiries collecting figures of the sales of each industry's products and it is the purpose of this article to elaborate on the nature of these enquiries and to report on progress in arranging their implementation. (Some of the problems of implementation in specific industries were discussed in articles by A. A. Sorrell, *Statistical News*,6.4 and 7.22).

Content of enquiries

The information collected in these quarterly enquiries will be, primarily, sales by value of the products of each industry. Sales were chosen rather than production since the former is typically more readily available from respondents' records, and in value terms in order to achieve comprehensive coverage of activity. Figures in physical terms, e.g. quantities, weights etc., will also be collected where desired and appropriate. This is the general approach; some industries, however, are also interested in production or total make figures, i.e. including production for captive use, and enquiries traditionally conducted on this basis will continue as required. Another possibility which will have to be considered in some industries, e.g. heavy engineering and construction, is work done rather than sales figures. The details in these exceptional cases will be worked out in consultation with the industries concerned.

A primary objective of the reorganisation is to improve the quantity and quality of the short-period product statistics available to users in industry which means that a major feature of the negotiations with each industry is the discussion on the list of products for which information is to be collected. Obviously the list should be comprehensive. It should be well-balanced in regard to the value of sales under headings. It must not be too long; long lists, even if only one or two entries are required in many individual cases, greatly irritate suppliers of information and response suffers. The definitions of the products should be as clear as possible and it is very necessary to ensure that, given goodwill on the part of the supplier, he can be reasonably expected to supply the information. This last condition is most important though, of course, what is reasonable in this context is not susceptible to fine judgement. Record-keeping practices vary widely from firm to firm and industry to industry and the Government's view is that the enquiry requirements should not be too refined in the early stages. Improvements such as further product detail can be introduced at a subsequent stage.

An illustration of the supply problems involved has arisen in some negotiations which have revealed a user desire for 'end-use' product definitions. In some cases it may be possible to adopt these definitions, but many firms do not maintain their sales records classified by, say, the industry of the purchaser and to ask firms to do so would be an onerous requirement and furthermore is likely to produce indifferent analyses. But if there is evidence that the information is readily available in firms' records, the Government is willing to consider all proposals of this sort.

Aside from the need to balance demand and supply aspects, the product headings should be related as closely as possible to the external trade product headings. It is not necessary that the full product lists for imports, exports and industry sales should be exactly the same given the differing circumstances relevant to these categories of goods and the international factors, including tariffs, which influence external trade classifications only. It is desirable, however, that the lists should be congruent, i.e. one, or a limited grouping of headings in one classification should equate exactly with one, or a limited grouping of different headings in another classification.

The outcome of this work will be a considerable increase in the number of products of manufacturing industry for which quarterly figures are available, mainly because some quarterly enquiries will be entirely new, but also because the reviews of existing enquiries tend to lead to some expansion in the number of headings. Prior to the reorganisation quarterly, or occasionally monthly, statistics were available for about

2,000 products; post-reorganisation, this total may reach 5,000.

All quarterly forms, in addition to the product headings, will include a few standard questions on sales of waste products, merchanted goods, services rendered, etc. Answers to these questions, and the amounts involved are substantial in some cases, complete the coverage of the firm's output activity and are relevant in deciding the appropriate industrial classification of the firm.

Aspects of collection

In due course, the Central Register of Businesses held by the Business Statistics Office will provide the industry registers for each enquiry. At the moment the Register for manufacturing is still being built up and is based largely on the existing census of production registers. The reporting unit will be the establishment as defined in the Standard Industrial Classification. In practice this is often each geographically separate production unit, though discussions with industry suggest that negotiations with individual firms about their reporting units will be necessary in some cases. The requirement of small reporting units is fundamental, however, to the provision of statistics by industry or area.

Bearing in mind the need to ease the burden of reporting by industry, the quarterly enquiries will normally be limited to establishments with 25 or more employees, which means that about sixty per cent of all industrial establishments will be excluded. Despite this, it is expected that the enquiries will cover about ninety-five per cent of output. In a few instances where existing short-period statistics have a more comprehensive coverage and the industry concerned wishes this maintained, the usual course will be to extend the cut-off line to establishments with eleven or more employees. A similar extension may also be considered at a stage subsequent to the original launching of the enquiry in those few industries where small establishments contribute a substantial proportion of the industry's output.

A fundamental feature of the quarterly enquiries is that they will be industry-based, like censuses of production, and not product-based, as has been the basis in most existing short-period production enquiries. This distinction is important. An industry-based enquiry covers the total sales of establishments classified to an industry; these figures include sales of products more typically produced in other industries. A product-based enquiry covers the total sales of a product, or limited group of products, by establishments classified to any industry. Users may be interested in either or both sets of statistics and in practice it is easier to collect industry-based figures and to translate these into product totals rather than make the reverse translation. (The collection problem is eased because each establishment appears once in a comprehensive register used for industry-based enquiries whereas the same establishment could appear a number of times in product-based registers).

The mechanics of the system are simple. Each industry form – and, of course, each establishment receives one quarterly form only – includes in addition to the headings of products characteristic of the industry, a few headings covering products of other industries (the 'carry-out' headings) which it is known are often produced in the industry in question. These latter figures can then be carried to their appropriate industry to provide total product figures.

The system does involve some practical difficulties. The compilation of good industry and product totals requires enquiries in related industries to be launched simultaneously which in turn means that negotiations with these industries must be conducted, and more difficult, concluded, concurrently. The indications to date are that this aim will be largely achievable though it does introduce some constraint into the implementation of the reorganisation programme. Another, usually minor, consequence, even allowing for simultaneous launchings, is that, since overlap with other industries is so widespread in certain instances, the 'carry-out' headings on the forms in these cases will have to be extended subsequent to launching as new industries are brought into the system.

Procedures

Co-ordination within the Government Statistical Service on the programme of reorganisation is the responsibility of the Central Statistical Office but the negotiations on the new enquiries are conducted by the appropriate sponsoring Department largely with the trade associations representing the industry. The Economic Development Committee for the industry, if there is one, may also be involved in the negotiations and individual firms often contribute to the discussions, particularly on matters like the definitions and suitability of product headings.

These negotiations may be completed rapidly in a few cases but experience to date suggests that the discussions with many industries will be fairly lengthy. Reconciliation of differing views within the industry is often necessary and there is also the Government's need to strike a balance between the demand and the supply aspects of the statistics. The extent and suitability of the product headings is typically the matter requiring most discussion and informal soundings within the industry, at least, about the headings are usually required. It may be desirable on some occasions to circuelte the draft headings throughout the industry for comment. On completion of the negotiations, the implementation of the launching of the new enquiry will normally be immediately passed on to the Business Statistics Office, which is responsible for the collection and processing of the statistics. Specimen enquiry forms are sent out by the Office to all prospective contributors and the first forms for completion in respect of the earliest convenient calendar quarter shortly thereafter. An important feature to be borne in mind in these operations is the desirability for as close a continuity as possible with any existing short-period statistics which have been superseded by the new arrangements – the switch from product-based to industry-based enquiries may be troublesome in the short term in this respect.

The form-filling burden

The aim of the reorganisation of short-period industrial statistics is not only to set up related quarterly reporting across all industry but also to consider the existing statistical enquiries, both official and those conducted by trade associations. This process affords an opportunity for the reduction or elimination of some existing demands, and experience to date suggests that benefits in this direction should result.

As mentioned above, the industry, rather than product, basis of the enquiries will mean that each establishment completes one form only in respect of its quarterly sales; some establishments have previously completed two or more forms each covering a part only of their sales. Existing official and, it is hoped, trade association or other enquiries which duplicate the information now to be collected will be discontinued. Reconsideration of essential needs has led, in some instances, to a reduction in the frequency of collection of some product information from monthly to quarterly. A high level of congruence with the headings in the external trade statistics weakens the justification for the collection of ex-factory export deliveries by product on these quarterly returns, and it should be possible to discontinue most of the requests for this information which are fairly prevalent on existing official and trade association forms. Other items on existing forms will be dropped if the case for retention is not strong – in one case, for example, of order-book figures since past figures reveal that the size of the industry's order-book does not fluctuate significantly over time.

Monthly enquiries

At present, in many industries, enquiries into sales or production, and sometimes orders, are conducted on a monthly basis. These enquiries serve both official needs – for the monthly index of production, for instance – and the wishes of a number of industries for up-to-date indicators of trends in activity. Many of the enquiries are of a very simple nature asking for total sales, and perhaps orders, only. Others, whilst also of value for official purposes, are particularly geared to the requirements of the industry, often asking for production or make figures of a number of products covering most of the output of the industry. It is likely that many of these enquiries will continue much as now, but their precise form and relationship to the quarterly enquiries will be discussed individually with each industry.

Publication of results

Various proposals on the subject of publication of the statistics flowing from the quarterly and related enquiries, e.g. the annual census, are under consideration at the present time. It would go beyond the purpose of this article to examine these questions of publication in detail but it may be worth touching briefly on timeliness, and also scope, of publication.

The ever-present problem of timely reporting of results will arise in a particularly acute form with the quarterly enquiries since they form an integrated set of related enquiries with the twin purpose of providing up-to-date statistics on both an industry and a product basis. This will require near-simultaneous publication of results for related industries. Aside from the difficulties thereby created in the processing operations of the Business Statistics Office, the arrangements will require a timely response from industry if the benefits of integrated quarterly reporting are to be achieved.

On scope, while the results will continue to be published in the Business Monitor series and elsewhere much on the existing lines, the possibility of including other related statistics about the industry in the Monitors in addition to the information collected in the quarterly enquiries is being examined. These statistics might include, for instance, exports, imports, production and price index numbers, labour, and so on. Another possibility which will be considered, if there is sufficient demand by users, is to combine related parts of existing Monitors, e.g. on packaging products, into special publications.

Progress

The reorganisation programme is a very substantial one, involving individual negotiations in detail about enquiries covering some 170 industries (Industries, in this context, usually means minimum list headings, and occasionally, sub-headings in the mining, manufacturing and construction Orders of the Standard Industrial Classification). In 1969 discussions relating to about forty industries were commenced – lists of the industries concerned appear regularly in *Statistical News* notes – and at the time of writing (December

1969) it seems likely that new or revised quarterly enquiries will be launched for the following industries during 1970:

Minimum List Heading	*Industry*
217	Cocoa, Chocolate and Sugar Confectionery
272	Pharmaceutical Chemicals and Preparations
274	Paint
370	Shipbuilding and Marine Engineering
383	Aerospace Equipment Manufacturing and Repairing
399/1	Metal Furniture
441	Weatherproof Outerwear
442	Men's and Boys' Tailored Outerwear
443	Women's and Girls' Tailored Outerwear
444	Overalls and Men's Shirts, Underwear, etc.
445	Dresses, Lingerie, Infants' Wear, etc.
449/1, 3, 4	Corsets and Swimwear, Umbrellas and Walking Sticks and other Dress Industries n.e.s.
463	Glass
472	Furniture and Upholstery
473	Bedding, etc.
474	Shop and Office Fittings
482/1	Cardboard Boxes, Cartons and Fibre-Board Packing Cases
482/2	Packaging Products of Paper and Associated Materials
483	Manufactured Stationery
484	Manufacturers of Paper and Board n.e.s.
491	Rubber
492	Linoleum, Plastics Floor-covering, Leather-cloth, etc.
494/1, 2	Toys, Games and Children's Carriages
494/3	Sports Equipment
496	Plastics Products n.e.s.
499/1	Musical Instruments

Depending on progress in current and immediately pending reviews, perhaps a further ten or more industries will be added to this list in the event, and progress on implementation of the programme will continue to be reported in *Statistical News*.

The D.E.P.'s new earnings survey

A. R. Thatcher, *Director of Statistics, Department of Employment and Productivity*

Background to the new survey

The regular earnings surveys which are carried out by the DEP provide information about the average earnings of manual workers in most industries, in particular weeks in April and October each year; and about the average earnings of non-manual workers in October each year. There is also a streamlined monthly survey which provides an important indicator of short-term trends in average earnings, and some specialised surveys in five particular industries.

All these surveys, however, are concerned with *average* earnings. They do not provide any information about the extent to which the earnings of individual employees differ from the average. In particular, they do not show the numbers with earnings in each range, that is, the *distribution* of earnings. Nor do they show how much of total earnings consists of basic wage or salary, and how much consists of additional payments for overtime, bonuses, commission, etc.: that is, they do not show the *make-up* of pay. Furthermore, the regular surveys give information about the industries of the Standard Industrial Classification, but (except for the five industries with specialised surveys) they do not provide any information about particular *occupations*. Nor do they provide any information about the earnings of employees on particular *wage agreements*.

During recent years, and particularly since the pay-pause of 1961 and the beginning of the present incomes policy in 1965, there has been a great growth in the demand for statistics about earnings and it has been widely felt that the regular information about averages was insufficient. If special consideration was to be given to lower-paid workers, there was plainly a need to know much more than just the averages. Moreover, since national wage negotiations are concerned with basic wage rates, there was a need to know much more about the relationship between basic rates and total earnings, and about the earnings of employees on particular agreements. In 1966 the House of Commons Estimates Committee commented unfavourably on the paucity of information in this field.

Although full-scale surveys of the distribution of earnings had been held on four previous occasions, at long intervals, these did not provide nearly as much information as was now required and to obtain this by traditional methods would place an intolerable burden of work on the employers who would have to complete the forms. However, early in 1967 a suggestion was put forward by the NBPI that this burden could be very much reduced by confining the survey to a relatively small sample of employees, selected by their national insurance numbers. This suggestion was immediately investigated by the Ministry of Labour and Ministry of Social Security (now the Department of Employment and Productivity and Department of Health and Social Security), and in September 1967 a small-scale pilot experiment was held to test the sampling procedures and questions. The results were very successful and, after discussions with the CBI, the TUC and some other interested parties, it was decided by the Government to hold a full-scale survey in September 1968.

The design of the new survey

The sample was designed to cover all those employees who were in employment and whose national insurance numbers ended in certain combinations of digits. This was a completely impersonal method of selection, and, in view of the way in which national insurance numbers are allocated, it provided an almost perfectly random sample of all the employees in the working population. In contradistinction to earlier surveys (which were built up piecemeal, industry by industry, and which often omitted particular sectors), the new survey covered all industries, all occupations, and all sizes of establishments.

When the national insurance cards of the employees in the sample were exchanged at the local offices of the DHSS between September and December 1968, the addresses of their employers were identified so far as practicable. (Some of the employees were not in employment, and in some cases the employers could not be traced.) In the case of those civil servants and GPO employees who have national insurance numbers but not cards, arrangements were made for those in the sample to be located in departmental records. In all, forms were issued for about 92,500 employees, and their employers were asked by DEP to complete returns, under the authority of the Statistics of Trade Act, 1947. Of the forms returned, 84,000 provided complete data and were in time for use in the analysis. This was about 1 in 270 of all the employees who were in employment in Great Britain.

The information on the returns, which related to individual employees and firms, was treated as strictly confidential. In fact, neither the names nor the addresses of either the employee or his employer were transcribed on to the punched cards and magnetic tapes which were used for the statistical processing.

The sample design, covering 1 in every 270 employees at random, meant that few small firms had to complete more than one return and the majority were not involved at all. Even for large firms the load of form filling was widely spread. For all firms together only 1,200 pay offices, out of about a million in the country, had to extract information about more than 10 employees.

An important feature of the survey, intended to reduce to the minimum the burden on employers, was that the returns were designed so that many questions could be answered by putting ticks in boxes. In addition, the questions about occupations and wage agreements were pre-coded: that is to say, lists of occupations and agreements were printed on the form and the employer was asked to indicate the ones which applied to the employee concerned.

Processing and publication

Following discussions with the CBI, TUC and NBPI, the DEP appointed an expert group which included representatives of these bodies to appraise the results of the new survey as they became available. This group also provided an extremely useful forum for considering which methods of presentation of the data would be most helpful to users.

The computer programmes were written under contract and processing was carried out on an HMSO computer at Norwich. In order to save time, a preliminary processing run was held about a month before the data were complete, using the returns which had been received up to that time. The expert group was thus able to form views on methods of presentation and table-design in good time, and this meant that the final data could be put into the recommended format as soon as they became available. In the event, the last returns were collected in March 1969 and it was possible to publish the first batch of results in the May 1969 issue of the *Employment & Productivity Gazette*. Further instalments were published in the June to October 1969 issues. A booklet bringing these six articles together, and containing a great deal of additional material which it was not possible to include in the *Gazette* articles, is now being prepared for publication about May 1970.

The information provided by the new survey is very extensive. The six articles already published run to 76 pages and there is still more to come. Obviously this mass of material cannot properly be summarised in a short article, nor would this be appropriate: most of the tables are for reference by those interested in particular industries, occupations, wage agreements or regions. However, a brief selection of results of more general interest may help to indicate the nature of the material which the survey has provided.

The distribution of earnings

Firstly, the sample can be grossed up to give estimates of the distribution of earnings of employees. These show, for example, that in September 1968 there were about 200,000 men and over 2 million women earning less than £12 per week, and that about a million men and over 3 million women were earning less than £15 per week. At the upper end of the distribution, about a million men and 100,000 women were earning more than £40 per week. These estimates relate to full-time adults paid for a full week, and they exclude income in kind and tips.

The earnings of women (in £ per week) were about half the earnings of men at corresponding points of the distribution: that is to say, the lower-paid women earn about half as much as the lower-paid men, and the higher-paid women earn about half as much as the higher-paid men. In the case of men, the survey gave information about ten major groups of occupations and the earnings of nearly ninety individual occupations, ranging from cleaners, watchmen, caretakers, gardeners and farm workers to managers, scientists and university staff.

An analysis of manual workers by level of skill showed that the distribution of earnings of skilled manual men had almost exactly the same shape as the distribution for unskilled men: the lowest paid of the skilled men earned 25 per cent more than the lowest paid of the unskilled men, while the highest paid of the skilled men earned 25 per cent more than the highest paid of the unskilled men.

Variations of earnings between regions are relatively small, but the variation of earnings with age is very marked. For example, in 1968 manual men in their thirties and forties were earning as a group considerably more than men in their twenties, fifties and sixties. It seems likely that this may be related to the general variation of human capacities: older men may not always be able, or may not wish, to undertake such arduous work as in their younger years.

The make-up of earnings

The new survey gave the first comprehensive analyses which have ever been possible of the make-up of pay. For manual men, basic pay accounted for only 67 per cent of total earnings. The largest components of the balance were overtime pay (16 per cent), payment by results (9 per cent), shift premium (2 per cent) and bonuses (2 per cent). For manual women, basic pay was 79 per cent of total earnings and the largest other items were payment by results (12 per cent) and overtime pay (4 per cent). For non-manual workers, basic pay was 91 per cent of total earnings for men and 96 per cent for women, the largest other item for men being commission (3 per cent). These are, of course, only the overall averages. The survey shows very wide variations between industries and wage agreements.

Loss of pay

The survey showed that many manual workers were paid for less than their normal basic hours in the week of the survey. The proportion who lost pay was 15 per cent for full-time males, 22 per cent for full-time females, and 11 per cent for part-time females. The most common reason for loss of pay was given as 'late arrival or early finish'. Voluntary absence affected 3½ per cent of the manual males and 6 per cent of the manual females. The reasons for loss of pay, which throw some light on the incidence of absenteeism (or at least on those cases of absenteeism which result in loss of pay) are analysed by industry, occupation, age group and region.

Other results

An unexpectedly large number of workers were stated by their employers to be unaffected by any national collective agreements. At the same time, the earnings of those who were stated to be unaffected, were shown as not very different from the earnings of those who were stated to be affected.

The survey gave extensive results on hourly earnings as well as on weekly earnings, and also on normal and actual hours of work. In many occupations there is a correlation: employees with lower-than-average hourly earnings tend to work for longer-than-average hours.

About 12 per cent of the employees were recorded as having some form of income in kind. Most of these were in the middle ranges of earnings but some were in the lowest ranges and these, together with pensioners, articled clerks, other trainees and employees receiving tips, accounted for many of the cases of exceptionally low pay. The survey revealed several occupations which have extremely unusual earnings or hours or both.

Further information from the survey, to be included in the forthcoming booklet, will include earnings in sub-regions and analyses of length of service, holiday entitlements and numbers of apprentices and trainees.

Applications of the results

The provision of more useful information about earnings will help employers and unions in negotiations, and will help the Government to examine economic and social problems. The new survey has already provided information on many questions which could not be answered from the regular surveys. It has shown which are the industries, occupations and regions containing the lowest-paid workers; the (previously unknown) level of earnings of employees in the wages council sector, on major agreements, and in several industries which are not included in the regular surveys. It has shown the ratio between the earnings of men and women in the main occupations which will be or are already affected by equal pay, and the size of the wage and salary bill in these occupations; it has thrown light on the varying incidence of absenteeism between industries, occupations, age-groups and regions; and it will provide some completely new information on the variation of earnings between sub-regions and hence on their relative prosperity. The data from the new survey have already made it possible for the NBPI to dispense with one of their surveys and to prune another.

Arrangements for future surveys

The expert group which was appointed to appraise the results of the new survey has submitted an interim report, which will be published in the forthcoming booklet. The report contains an assessment of the cost of the survey, the accuracy of the results and their usefulness. The group conclude that the new survey provides a very large amount of new and important information at a comparatively modest cost; but consider that even more useful results would be obtained by doubling the sample size and adopting a matched sample design, which will provide information about the flows of employees between industries, occupations and regions and will have many applications for manpower and regional planning. On the group's recommendation and after consultation with the CBI and TUC it has been decided that as from April 1970 a doubled survey of the new type will replace the present April series of surveys of earnings of manual workers, except in certain industries for which special arrangements will be needed. The present October surveys of the earnings of manual workers will continue, but the present survey of salaries will be discontinued after the next survey in October 1970. Consultations have begun with employers' associations and trade unions to see whether further pruning of the present surveys is possible. It is hoped that these changes will meet the need for further statistics on earnings, but at the same time will keep the burden of form-filling to the minimum. The new arrangements will be reviewed after two further surveys of the new type have been held.

The C.S.D. statistics division

A. R. Smith, *Chief Statistician, Civil Service Department*

The Civil Service Department was created on 1 November 1968, following consideration by HM Government of the findings of the Fulton Committee to take over from HM Treasury the responsibility for management of the Civil Service and to carry through a reconstruction of the Service which the Government felt to be necessary. The Civil Service Commission became part of the new Department. The Statistics Division was formed and charged with the task of providing a comprehensive statistical service for the whole of the new Department including the CSC.

Introduction

The CSD Statistics Division exists to provide information and professional statistical assistance for the management of the Civil Service. The essential interests of the Division are manpower information, management, research and planning at the micro level. In some ways it shares the interests of the managements of the larger industrial concerns rather more obviously than those of many other Whitehall Statistics Divisions. But there are problems of scale and complexity which put the CSD work on a plane different from that of most if not all industrial firms: we are concerned with about 500,000 non-industrial and over 200,000 industrial employees, drawn from very many hundreds of professions and occupations.

Even though its main concern is with micro-scale work, the Division has a very real interest in manpower issues on the macro-economic scale also, especially in so far as they may have a bearing on the ability of the Civil Service to recruit and retain the staff it needs, and it is for that reason linked with the macro-economic manpower work of Whitehall as a whole through the co-ordinating activities of the Central Statistical Office.

The need for comprehensive statistical information for the management of the Civil Service had been foreseen as long ago as 1945 when the decision was taken to establish in HM Treasury a central record in the form of (individualised data) punched-card records covering each member of the entire non-industrial Civil Service. Unfortunately successive economy drives caused the repeated postponement of the completion of this Central Staff Record (CSR), and it was not until late 1967 that 'temporary' staff were included in the record to make it complete. In the meantime another step towards the provision of a statistical service had been taken in 1965, when a professional statistician was appointed to take charge of the statistical work of the staff-management Divisions of the Treasury. So the CSD Statistics Division was able to take over at the beginning of its life two notable assets: a nucleus of staff with appropriate skills and knowledgeable in the ways of the Civil Service, and a substantial (if imperfect) set of personnel records.

Data systems sub-division

At the time the Civil Service Department was created the CSR was in serious difficulties. The CSR had been transferred during 1967/8 from a punched-card installation to the HMSO Central Computer Bureau at Norwich and had run into the inevitable teething problems of new computer projects. Investigation showed too that there were a number of defects in the flows of information into the CSR from Departments. Serious delays in the notification of events was causing an unacceptable degree of inaccuracy. There was a time-lag of three months or more between requesting output from the computer and taking delivery. The first priority of the new Division, then, was to establish systematic renovation and management of the CSR. To carry out this task and to coordinate and rationalise other sources of data a Data Systems Sub-Division was created and put into the charge of an experienced systems manager recruited specifically for the task. This work, in which we have the full cooperation of the staff of CCB Norwich is now well advanced. Data-flow controls have been introduced, and programs which will permit the rapid supply of information are being developed, tested and introduced.

The CSR was not the only source of data and was by no means adequate for all purposes. It was comprehensive, in the sense that it covered all 500,000 people in the non-industrial Civil Service, but it contained only a limited amount of information about each individual – in fact only as much as had originally been accommodated on a single punched card. Action is being taken to improve the coverage slightly by adding educational and professional qualifications and better location data; and an analysis of other proposed extensions is being made with a view to establishing which are economically justifiable, taking into account the likely use both centrally and in Departments.

For many management purposes much more information is needed. This is especially so (so far as the Civil Service Department is concerned) in the case of those categories which need to be managed centrally. To meet the need in earlier years the Treasury management Divisions had established manual records of certain categories of staff eg administrators and economists; and the Civil Service Department had been obliged as one of its first tasks to establish a similar record covering all the senior grades in all classes of the Civil Service. All of these records have now been transferred to the Data Systems Sub-Division where they are being rationalisd into a single sub-system known as the Central Management Staff Record (CMSR). The CMSR will be augmented with information on additional categories of staff as the need arises and within the limits of available resources. It will be transferred shortly to computer. By early 1970 the CMSR is scheduled to be providing individual data on-line for personnel management and in addition data for statistical analysis and forecasting. (This computer scheme has been designed and developed by the CSPIS Project Group – see later).

The efficiency of the CSR and of the CMSR depend heavily on the cooperation of all Government Departments, and the speed and accuracy with which they supply new information about their staffs. With this in view Liaison Officers have been appointed, and training seminars are being organised, so that everyone concerned can be made fully aware of what is at stake and the part he needs to play.

The other tasks of the Data Systems Sub-Division, in addition to management of the CSR and CMSR, are the collection of supplementary information by sample survey, and the rationalisation and management of statistical returns. Examples of sample data are the survey of sick leave which is based on a 5% sample of the Civil Service, and a central record maintained on the CCB Norwich computer of a small sample of industrial employees. Examples of returns-based data are counts of numbers of posts and vacancies, and of locally-recruited staff abroad, and returns to meet the particular needs of other Departments such as the DEP. Some returns which are managed by other Divisions (and which are being taken over from other Divisions as and when it is mutually convenient) contain information which can be obtained through an alternative route by better use of the CSR and CMSR, and where this is the case the returns are being reduced in scope or discontinued. All statistical returns are being reviewed to see whether their use justifies their retention.

All of these sources, brought together under a single management, make up what might be called the present Personnel Information System.

CSPIS project group

A long-term aim is to provide a unified service-wide Civil Service Personnel Information System (CSPIS) based on a small number of integrated pay and personnel-record installations maintained on computer in compatible form by the larger Government Departments (some of which will maintain these records on behalf of small Departments on an agency basis). Information from these installations will be communicated to a central computer which will maintain a personnel data-base as the source of all personnel information required by central management.

The CSPIS Project Group has been set up (originally within Management Services – see later) to carry this project through.

There will be two distinct phases of CSPIS implementation. Phase I, which will probably be completed by about 1975, will be concerned with extending pay and personnel records on a standardised basis throughout the Service, but to a relatively modest extent. Phase II which is expected to take a further five years will cover comprehensive expansion of the computer based personnel records so that manual records are abolished to the greatest possible extent. As the CSPIS system becomes operational the present and the new information systems will merge.

The CSPIS Project Group was created as part of the Management Services (Computer) Division, but has now joined the Statistics Division. This organisational change is expected to facilitate the incorporation into the system of the capacity to handle advanced management aids such as analytic, forecasting and assignment models and operational equivalents through the interchange of information and expertise between statisticians, research officers, operational data managers and systems analysts and designers all of whom are now brought together in the same Division.

Analysis and forecasting sub-division

So far we have been describing the organisation for collecting, storing and retrieving data. This data is the raw material for processing into information of the kinds needed by management for the development and execution of policy. The processing is the task of the Analysis and Forecasting Sub-Division.

The first part of their task is the monitoring of what has been happening in the recent past to the stocks and flows of each of the various kinds of Civil Service manpower. This involves examination of the statistical characteristics of the grade and specialisation structures, and of their intakes, losses, transfers and promotions, in as much detail as may be required within the limits imposed by the availability of data. Much of this information is supplied to management as a day-to-day service. Reports based on these fact-finding studies (labelled *Statistical Reviews*) are supplied to the appropriate management bodies which are more often than not inter-departmental Committees, Working Groups or Panels. These reports frequently bring to light unexpected facts, or situations which had hitherto been imperfectly understood or measured, and they focus attention on problem areas which need the attention of management. So far reports have been prepared on a number of small specialised categories (statisticians, economists, psychologists, research officers, information officers, lawyers and accountants), on the larger professional categories (scientists, various kinds of engineers, architects, surveyors etc), and on special aspects of the large general Civil Service categories (administrative, executive and clerical). The Statistical Reviews will be regularly up-dated.

Once the relevant statistical features of a category have been established, the next step is to construct a model which describes the more salient of these features. This usually involves some simplification of the existing patterns of movement. Once the model has been prepared its first application is generally a review of the effects of the continuation of present policies. Alternative policies can then be assessed relatively quickly by feeding different sets of assumptions into the model. If an optimum policy can be selected, the model may be used to devise a strategy for moving from the present to the desired policy. So far as possible this forecasting and model-building work is being translated into computerised models which can be applied either at our own computer terminal or at the HMSO Central Computer Bureau at Norwich. These studies are invariably aimed at practical problems and involve close liaison with the appropriate policy divisions. Work of this kind has included an examination of the consequences of a change in the numerical balance between different types of recruit; a series of forecasts of the numbers eligible for future Civil Service College courses; and examination of the situation likely to arise if certain categories which are at present separate are merged into a single structure.

One of the objectives of the Division is to develop a full range of sub-system models which can be progressively modified as 'post Fulton' decisions are taken; and then brought together and developed into a whole-system model, covering the entire non-industrial Civil Service. This will be used for monitoring, forecasting and target-setting.

The Analysis and Forecasting Sub-Division will also be responsible for the annual preparation of a volume of statistics and statistical commentary which is likely to be published as Part 2 of the Annual Report of the Civil Service Department.

This Sub-Division also undertakes a few other tasks for which its staff are particularly well qualified – for example, the analysis of the survey of sick-leave and its presentation in a report; studies of the environment from which we recruit (e.g. population 'at risk' of being recruited) which are usually undertaken in association with the Central Statistical Office; and appreciations of various possible computerised selection and assignment models.

Other branches

There are a number of tasks which it is not appropriate to allocate to the main Sub-Divisions (whose work has been described in the earlier paragraphs). Into this class fall organisational studies e.g. a systematic study of the statistical information needs of the Civil Service Commission and of ways of linking the information system of the CSC into the main statistical information systems of the Department; and on a smaller scale a study of the statistical service required by the Pay Divisions. Also into this class fall feasibility studies of ways of improving the flow of information about numbers of posts, and of improving the forecasting of the numbers of posts likely to be required in the future given certain assumptions about Civil Service commitments. To permit a start to be made with work in these areas a small Special Studies Branch has been established.

Some work is best done not by staff centrally located in the Statistics Division, but by staff located with other divisions, often in multi-disciplinary studies teams. For that reason some of the staff of the Statistics Division are assigned to work with the Management Services (Operational Research) Division, and with a behavioural sciences Research Division which is concerned with e.g. development and validation of selection procedures. An additional Statistics Branch is being established shortly to work in the Civil Service Commission.

The Division also has an interest in the teaching of statistics and other quantitative techniques, and especially in the teaching of manpower planning techniques. One member of the staff is appointed primarily for teaching in the Civil Service College (although he also has internal divisional tasks), and other staff participate in the teaching and provision of course material at the Civil Service College and elsewhere on a part-time basis.

Staffing

Because of the time-table for achieving objectives which the Department as a whole has set itself, the Division could not afford to rest content with a gradual easily-assimilable rate of build-up of its staff. A crash programme was accepted as necessary, and during 1969, the number of staff was built-up rapidly from the original small nucleus of 15 statistics and records staff to about 70, partly by the transfer of staff and work (including CSPIS) from other Divisions, partly by transfer or loan of staff from other Government Departments and partly by recruitment from the Universities and Industry. About half the staff are professional statisticians or research officers or senior systems analysts and designers and a proportion of the remainder are particularly well qualified and experienced executives.

The full-time staff are reinforced by two part-time consultants – Prof. D. J. Bartholomew (University of Kent) and Mr. R. W. Morgan (University of Cambridge) – who play a very active part in the development of the work of the Division and take on a number of assignments. Considerable benefit is also obtained from having students working in the Division from time to time. Several undergraduates and post-graduate students (from Cambridge, Leeds and London) joined project groups within the Division during the 1969 Summer Vacation; several first-degree and HND sandwich course students (from Sheffield and Woolwich) are undertaking or due to undertake their industrial year or industrial half-year with the Division; and a post-graduate student (Lancaster) is expected to be working on his project full-time within the Division during 1970. Some of our own staff too, are students in another sense: two of the staff are working towards doctorates on a part-time basis, and one (to be joined by a second in 1970) has been released to undertake full-time study leading to a degree in statistics at LSE. These bursary students return to work on divisional projects during vacation.

Keeping up to date

We consider it important to keep ourselves up to date with new developments in methodology and to keep ourselves informed about appropriate experience which is being gained by other organisations. With these ends in view most of the senior staff of the Division play an active part in the affairs of the relevant Societies, Institutes, and International Organisations and contribute to their conferences and seminars.

We do not at present intend to engage in methodological research beyond our immediate day-to-day needs. We are, however, co-operating, usually by giving access to data, in studies being undertaken elsewhere. We have a considerable interest in work on development and testing of stochastic models which is being undertaken in the University of Kent under an SSRC grant, and are assisting with certain studies being undertaken at the Institute of Manpower Studies and in the Higher Education Research Unit at LSE. We are at present considering a proposal that we should engage in comparative studies of Civil Service structure in association with the US Civil Service Commission and the University of Maryland.

We hope, through our departmental work and extra-mural activities, to develop a body of knowledge and experience which will be valuable not only to the Civil Service but to the managers of other larger organisations also.

Methods of surveying categories of people presenting special problems or needs

G. Beltram, *Assistant Secretary, Department of Health and Social Security*

This paper discusses methods which have been adopted for getting information about particular groups or categories of people in Great Britian in whose interests special measures may be required, within the framework of the social security system, if they are not to suffer disadvantage or hardship.

Social security statistics

The existing schemes of social security provide, for most people, protection against the effects of loss of income through age, sickness, disability, unemployment, loss or absence of family breadwinner etc. This protection is afforded chiefly through schemes of retirement pensions, sickness and unemployment benefit (all payable subject to contribution conditions), family allowances (payable for the second and subsequent children in practically all families) and supplementary benefits (formerly known as national assistance: payable subject to a test of requirements and resources).

Special studies

From time to time changing social conditions and attitudes and new perceptions of need give rise to demands for special studies of groups in the community whose circumstances cannot be adequately investigated by further analysis of existing data in official records and statistical returns. Examples of such groups, taken from recent British experience, are elderly people living on State benefits, families with children living on low incomes, fatherless families, homeless single persons, and people who are chronically sick and handicapped. Generally speaking, one of the main reasons for studying such a group is a belief or apprehension that some of its members may be in need of better protection against adversity than is afforded them by the existing social security arrangements and social services.

In order to evaluate the functioning of particular benefit schemes (e.g. those providing pensions for the elderly) or to estimate the cost of improving benefits or of introducing a new benefit within an existing scheme it is usually necessary to try to secure a representative sample drawn from the total population of Great Britain. Because the number in such a sample has to be limited, interest in regional and local variations may have to be subordinated to the need for national coverage.

The group or category to be investigated is always a minority within the general population, and invariably interest is focussed on the breakdown of the group into much smaller minorities, and in the characteristics of these sub-groups. For example, fatherless families – a section of the population in which there is considerable interest at this time – constitute something of the order of one in fourteen of all families with dependent children in Great Britain, and families headed by unmarried mothers account for probably round about one in five of fatherless families. The problem is generally to obtain detailed and statistically reliable information about a sufficiently large sample of the main group so that enough is learned about the relevant sub-groups.

The Census of Population

One possible means of identifying particular categories of people might appear to be by using the periodical Census of Population as a sampling frame and asking one or two additional questions where necessary. However, the Registrar-General is forbidden by law to pass on any information about an identifiable individual to a third party (including any Government Department) and the census could not therefore be used as a sampling frame under present circumstances.

The electoral registers

The best available source from which to obtain a random sample of the population of Great Britain is provided by the Registers of Electors. Everyone entitled to vote (i.e. broadly speaking everyone aged 21 and over – shortly to become 18 and over) is required to be registered annually, so that the vast majority of addresses in the country are included in the Registers. From these addresses samples are drawn for the Family Expenditure Survey, which is a continuous survey carried out on behalf of the Department of Employment and Productivity by the Government Social Survey.

Note: This article is a slightly abridged version of a paper submitted to a Conference on Social Security Research organised by the International Social Security Association and held in Vienna, 28 September to 2 October 1969.

Circumstances of old people
However, the use of a register of addresses to obtain a representative sample of a minority group is inevitably expensive and time-consuming, since it is necessary to make enquiries at a very large number of addresses in order to find a big enough sample.

When, therefore, in 1964 the Government wished to investigate the financial and other circumstances of people over retirement pension age (65 for men, 60 for women) it was decided to make use of a standing sample which is maintained for the purpose of collecting regular statistics of retirement pensioners. By taking a sub-sample of over 10,000 retirement pensioners and using different sampling fractions for different age bands, it was possible to ensure that an adequate number of older pensioners were included. This was considered to be important because of the probability (borne out by the results of the survey) that the older pensioners were less well-off and more often affected by physical and other handicaps. A disadvantage of obtaining a sample by this method, on the other hand, was that it excluded elderly people who had no title to retirement pension (then numbering about half a million out of a total of eight million people over pension age).

Families with children
In 1966 the Government decided to investigate the circumstances of families with children under 16, the main purpose being to find out how many were living below the national assistance standard, distinguishing families with fathers in full-time work from other types of family. The information was needed urgently, and resources for carrying out the survey were limited. A sub-sample of over 2,500 families was therefore drawn from the standing sample of families in receipt of family allowances, stratified and weighted to ensure an adequate number of larger families. As however family allowance is not payable in respect of the first or only dependent child in a family, and as no register of one-child families exists, the sample was defective in that such families had to be excluded. Of approximately 7 million families with dependent children in Great Britain at that time, about 2·9 million had only one such child; but as the proportion of relatively poor families rose markedly with family size this defect was not critical. An estimate was made for the purposes of the survey of the number of families with one dependent child living below the national assistance standard, but this could only be very approximate.

Chronically sick and handicapped people
The purpose of this enquiry, which is being carried out by the Government Social Survey on behalf of the Department of Health and Social Security, is to obtain detailed information about the numbers and characteristics (including the financial circumstances) of persons aged 16 and over who are suffering from various degrees of handicap, with particular reference to the very severely handicapped. This survey exemplifies the problem of investigating small minorities in the community. Out of an adult population of some 40 million it was believed that the number who might be regarded as chronically sick and handicapped was of the order of 250,000 to 1,000,000, depending upon the degree of handicap considered significant. But it was safe to assume that the majority of these would be 65 years of age or over, and the Department had to have information about the problems of younger sick and disabled people. It was also essential to be able to distinguish, at the end of the exercise, the relatively small minority of handicapped people who require a great deal of help from others in carrying out ordinary bodily functions, in order that the cost of introducing a proposed new benefit (attendance allowance) for such people might be worked out.

There is no comprehensive register of chronically sick and handicapped people in Great Britain; the incompleteness of the registers maintained by local authorities and other bodies made them quite unsuitable for sampling purposes. When the survey was being planned, it soon became apparent that, in order to find large enough numbers of younger handicapped adults through the medium of the Electoral Registers, it would be necessary to approach a very large number of households. Eventually, it was decided to send questionnaires by post to approximately 250,000 addresses drawn from the Electoral Registers in 367 representative areas, asking for the names of all handicapped people living at those addresses. This immense operation, including the despatch of up to two reminders in cases where no reply was received, was carried out for the Department by a private firm, under the supervision of Government Social Survey experts, at a cost of nearly £30,000.

From the preliminary results now becoming available, it appears that the methods adopted for this survey have proved successful, and it is doubtful whether any other method could have produced the required information. On the other hand, an operation of the scale and complexity of the postal 'screening' of a quarter of a million addresses, besides being costly, gave rise to formidable problems of organization and management.

Fatherless families
As already mentioned above, there is currently much interest in studying the circumstances of one-parent families. The Government has declared this interest in paragraph 42 of its White Paper on earnings-related

pensions. The Statistics and Research Division of the Department of Health and Social Security has accordingly been considering, in consultation with various advisers, how best to carry out a comprehensive survey of such families.

There would be no great difficulty in obtaining a representative sample of all widows with dependent children in Great Britain; most of them are in receipt of benefits from the Department. But in the case of unmarried mothers and separated wives the task would be extremely difficult. Problems of definition apart (and these would not be easy to resolve) the numbers at any one time are known to be relatively small – probably fewer than 100,000 unmarried mothers and 200,000 separated wives with dependent children in their care – and for obvious reasons some of the women in question will not be inclined to disclose their real status or to participate in an enquiry. The method applied in the survey of handicapped people – despatching questionnaires to a large number of addresses – would not be at all likely to produce a satisfactory response. Therefore, if as on that occasion it were desired to make use of the Electoral Registers, it would probably be necessary to arrange for interviewers to call at 50,000 or 100,000 addresses in different parts of Great Britain in order to obtain a sufficiently large and reliable sample. The expense would be great, and as the size, composition and characteristics of these groups may be subject to rapid change, the results would be of doubtful validity almost as soon as they became known.

For these reasons, a different approach to the problem is being considered. In the first place, there are various sources from which a broad but reasonably sound estimate can be made of the total numbers of widows, divorcees, unmarried mothers and separated wives with dependent children in Great Britain. Secondly, by carrying out surveys in a number of carefully selected localities, using samples drawn from all available sources and supplementing these with an intensive house-to-house coverage of a limited area in each locality, it should be possible to produce a reliable account of the numbers of fatherless families in the various categories and of their characteristics. This will not provide national statistics but it should be possible, by drawing sensible inferences, to form a reasonably good picture of the situation of the women and their families over the whole country.

Use of the Family Expenditure Survey

Enquiries made at one point in time, such as the surveys of retirement pensioners and families with children, have the disadvantages that they are expensive in manpower and money and therefore cannot be repeated at frequent intervals, although the findings lose their value fairly quickly because of the accelerating pace of social and economic change. Efforts are therefore being made to utilize more fully the continuous Family Expenditure Survey so as to provide a means of measuring year by year changes in the financial circumstances of particular sections of the population.

The Family Expenditure Survey is potentially of great value for social security research, relating as it does the expenditure patterns of households to their income and other characteristics. Over the course of each year an approach is made to approximately 10,000 households, randomly selected from the Electoral Registers. Comprehensive information on expenditure, income and household structure is collected on a strictly confidential basis from those households prepared to co-operate. In the event, about 7,000 households containing nearly 10,000 'income units' co-operate in the survey. Once the data are collected these are never used in a way in which individual households can be identified. From the data collected, it is possible, in principle, to work out the financial position of each 'income unit' by reference to the requirements of that unit by the supplementary benefits standard. Work is at present in progress to establish whether, in practice, the circumstances of families with children can be analysed, using data from the survey, so as to provide information comparable in value to the results of the Family Circumstances Enquiry carried out in 1966.

It should also be possible to make use of the Family Expenditure Survey to carry out studies of the circumstances of pensioners.

Utilisation of the Family Expenditure Survey on the lines discussed would provide a means of continuously monitoring the circumstances of different sections of the population year by year, and would obviate the need for frequent repetition of large-scale surveys of these groups.

Homeless single persons

It may be of interest to conclude this paper with a brief account of the methods used to estimate the numbers in a small section of the community which cannot practicably be studied by any of the means discussed so far. In 1965 it was desired to find out the numbers and characteristics of homeless persons without dependants, many of whom lead a vagrant and unsettled existence, and of whom a proportion 'sleep rough' (i.e. in barns, railway stations, etc., or in the open air).

In the absence of any previous comparable information, it was necessary to obtain data from a fairly wide range of sources, including reception centres maintained by the National Assistance Board (as it then was) for 'persons without a settled way of living';

lodging houses, hostels and shelters provided by local authorities and other bodies; and local offices of the National Assistance Board where homeless persons might apply for help. To supplement all this information, it was necessary to carry out a physical count of people 'sleeping rough'. This large and difficult operation required the compilation of a register of places known to be used by vagrants, followed by visits to all the listed places by a substantial field force on one night of the year (in December 1965). From all these sources, it was possible to estimate that there were at the time of the survey between 13,000 and 14,000 homeless single persons as defined for the purposes of the survey, of whom about 1,000 were 'sleeping rough' on the night of the special count.

Conclusion

The foregoing brief description of methods which have been used, or are being considered, for studying the characteristics of groups presenting special problems for the administration and development of the British social security system may lead to some pooling of ideas among organizations represented at the Conference. Authorities in other countries will no doubt have been concerned with some of the matters dealt with in this paper, and may well have found different solutions for certain of the problems discussed.

References

Financial and Other Circumstances of Retirement Pensioners, (HMSO), 1966 (Price 20s. 0d.)

Circumstances of Families, (HMSO), June 1967 (Price 17s. 6d.)

National Superannuation and Social Insurance, (Cmnd 3883), (HMSO), January 1969 (Price 6s. 6d.)

Homeless Single Persons, (HMSO), March 1966 (Price 27s. 6d.)

Notes on current developments

POPULATION AND VITAL STATISTICS

1966 Sample Census of Population

The *Usual Residence Tables* compare the enumerated population of England and Wales, Regions, Conurbations, Counties, County Boroughs, Local Authority areas with populations of 15 thousand or more and New Towns, with the population declared in the Census to be usually resident in those areas. Also included in this volume are tables giving the numbers of persons enumerated in the census who were stated to be usually resident outside England and Wales: visitors have been classified by county of usual residence, sex, age and marital condition.

Reference
Sample Census 1966, England and Wales; Usual Residence Tqbles, (HMSO), December 1969 (Price 9s. 0d.)

Population

The Registrar General's mid-1968 estimates of population incorporated, for the first time, adjustments made after evaluation of the results of the 1966 Sample Census and a critical review of the previously used national net migration figures. The result of these exercises, which are discussed in some detail in the *Registrar General's Statistical Review of England and Wales for 1966*, Part III, was to reduce the estimated mid-1966 home population of England and Wales by 90,000 persons. As a consequence the national populations (home, total and civilian) for the years mid-1961 to mid-1965 have also been revised and these are contained, by sex and age in *Quarterly Return No. 483*.

The 1966 Sample Census was used to revise the mid-1966 estimates for local authority areas in preparation of the Registrar General's published estimates for 1968. The 1969 Population pamphlet contains these revised mid-1966 figures (for areas as constituted at the 1st April 1968) for the guidance of those concerned with town and country planning. The reduction of 90,000 persons from the mid-1966 national population implied an under-enumeration in the Sample Census of 1·6 per cent of the population. Statistics for particular areas show a wide range of variation upwards and downwards from the grossed up figures of persons enumerated in the 1966 Sample Census.

Migration

The *1966 Commentary* contains for the first time a section on the statistical reliability of the estimates of migration derived from the International Passenger Survey. A description of the IPS including the sample design, is contained in the migration chapter. Standard errors (and percentage errors) which give some measure of statistical reliability are shown for:

- the different types of route;
- the different quarters of the year;
- age, marital condition and sex of migrants;
- different occupation groups.

An example of the analyses is shown in the following table for doctors and dentists emigrating from and immigrating into the United Kingdom in 1966.

Occupation and route	*Into U.K.*			*From U.K.*		
	Estimated totals (Thousands)	*Standard error*		*Estimated totals (Thousands)*	*Standard error*	
Doctors and dentists		*Thousands*	*Per cent*		*Thousands*	*Per cent*
Air	2·0	0·3	14	1·9	0·3	18
Short sea	0·1	0·1	99	0·8	0·5	62
Long sea	0·4	0·1	26	0·8	0·1	14
All routes	2·5	0·3	13	3·5	0·6	18

Fertility

Quarterly Return No. 483 contains preliminary birth figures resulting from the changes introduced from the 1st April 1969, under regulations made by the Registrar General in the registration of births, stillbirths and deaths in England and Wales. The main change is that the entry in the register now includes the birthplace of the parents in the case of births and stillbirths, and of the deceased person in the case of deaths.

Two tables are included, the first showing for the live births registered in the June quarter the place of birth of father cross-tabulated by the place of birth of mother. The second table shows the number of births to immigrant mothers, and the proportion they form of the total registered births, for those local authority areas with high concentrations of Commonwealth immigrants and for England and Wales as a whole.

The *1966 Commentary* contains a detailed analysis of multiple births. The proportion of multiple maternities by age of mother and legitimacy, triplet maternities per million total maternities by age of mother and legitimacy and a section on monozygotic and dizygotic twins are included in this publication.

References

The Registrar General's Statistical Review of England and Wales for the year 1966, Part III, *Commentary* (HMSO), February/March 1970 (Price not known at present)

The Registrar General's Quarterly Return for England and Wales No. 483 Quarter ended 30th September 1969 (HMSO), February 1970 (Price 3s. 6d.)

The Registrar General's Annual Estimates of the Population of England and Wales of Local Authority Areas 1969, (HMSO), January 1970 (Price 3s. 6d.)

Scottish statistics

The *Registrar General's Annual Report* for 1968 was published on 19 December 1969. Part I, *Mortality Statistics*, contains tables to the 7th and 8th revisions of the International Statistical Classification of Diseases, Injuries and Causes of Death; and includes 'bridge' tables between the two revisions. Part II, *Population and Vital Statistics*, features a number of new tables including local population estimates by age and sex. A supplement containing 1960–1962 Life Tables for Scotland was also published in December.

The Registrar General's third quarterly report for 1969 will be published in February 1970. In addition to the usual quarterly tables it will contain mid-1969 age and sex population estimates for Scotland, international migration figures for the first half of 1969, and a new table on abortions in January to September 1969.

Reference

Annual Report of the Registrar General for Scotland 1968, No. 114, (HMSO), December 1969 (Price Part I £3 6s. 0d., Part II 19s. 0d., Life Tables 6s. 6d.)

SOCIAL SECURITY

Analysis of certificates of incapacity

Summary statistics about incapacity for work recorded in respect of men and women of working age in connection with claims to sickness and injury benefits under the National Insurance Acts are published in the annual reports of the Department of Health and Social Security.

These statistics are supplemented by the production, from time to time, of digests analysing certificates of incapacity. A digest was completed towards the end of last year covering the period June 1961 to May 1964 and copies have been sent to those known to be interested. Some copies are still available and can be obtained on request to Statistics Branch, Department of Health and Social Security, 10 John Adam Street, W.C.2. A digest covering the period June 1964 to May 1967 is now in print.

The digests contain detailed analyses – there are some 200 pages of tables in the 1961/64 issue – of, for example, spells of incapacity starting and ending, days of incapacity and persons incapacitated at various dates by different variables such as cause, age, duration etc. The populations at risk for the benefits are given and rates are calculated where appropriate.

Retirement pensions and widows' benefits

Leading statistics relating to retirement pensioners and widow beneficiaries under the National Insurance Acts are published in the *Annual Report of the Department of Health and Social Security*. Basic figures are also published in the *Annual Abstract of Statistics*, the *Monthly Digest of Statistics*, and the *Scottish and Welsh Digests of Statistics*.

More detailed analyses are given each year in an *Abstract of Retirement Pensions and Widows' Benefits*. The edition for the year ended 31 December 1968 has now been prepared. The *Abstract* is mainly for official use but copies have been made available in the past to university libraries and other interested bodies.

Further information can be obtained from the Chief Statistician, Department of Health and Social Security, 10 John Adam Street, London, W.C.2.

HOUSING

Housing condition survey

The *Housing Survey Reports* on the Merseyside and Tyneside conurbations have now been published. These are the third and fourth in a series of *Housing Survey Reports*, the first two of which, published in September and described in *Statistical News*, 7.30, gave the results of similar surveys in the West Midlands and South East Lancashire conurbations.

About 35,000 of the Merseyside stock of 414,000 dwellings are estimated to have been unfit for habitation, and 22,000 of the 286,000 dwellings in the Tyneside conurbation. In both areas the proportion found to be unfit was below the average of 11% in the English conurbations as a whole in 1967. The proportions of unfit dwellings which were rented from private landlords (72% and 77% in Merseyside and Tyneside respectively) were higher than in the West Midlands and South East Lancashire conurbations, reflecting the differences between tenure distributions of housing stocks as a whole.

An exceptionally high proportion of the Merseyside stock was in poor repair with 33% requiring expenditure of at least £250. The Tyneside conurbation stock included many dwellings with fewer than 4 rooms, and 33% of the unfit dwellings were of this size.

Reference

Housing Survey Reports; No. 3 Merseyside House Condition Survey 1968, No. 4 Tyneside House Condition Survey 1968 (HMSO), January 1970 (Price 5s. 0d. each)

PLANNING

Planning applications

The 1968 issue of the annual series on *Statistics of Decisions on Planning Applications* has now been published as No. 1 of Series I in the new range of statistical bulletins prepared by the Ministry of Housing and Local Government and covering topics of planning interest. (Series II relating to floor space commenced in August). As in previous years the tables show permissions granted and refusals by class of development in England and Wales and by type of authority, with separate figures for approved green belts and national parks. Decisions on advertisement applications are also covered.

Reference

Statistics for Town and Country Planning; Series I Planning decisions. No. 1 Statistics of decisions on planning applications 1968. (HMSO), November 1969 (Price 5s. 0d.)

PRODUCTION AND DISTRIBUTION

Census of Production for 1963

Parts 131 and 132 of the Report on the Census of Production for 1963 containing summary tables of the Census results were published in December 1969.

Part 131 contains tables which summarise the main economic data for all census industries, facilitating inter-industry comparisons. Also included are an analysis by size of establishment, and an analysis of the concentration of sales of selected groups of products. Generally data is shown for both 1963 and 1958.

Part 132 contains analyses of the census results by enterprise. Among them are analyses of size of enterprise by employment and by net output and an analysis by nationality of enterprise.

The final outstanding Part of the Census Report – Part 133, containing analyses by country, region and conurbation – is expected to be published by the middle of 1970.

Census of Production for 1968

Provisional results of the 1968 Census of Production were published in an article in the *Board of Trade Journal* on 31st December, 1969. Information is given for each census industry – (roughly corresponding to each minimum list heading of the revised Standard Industrial Classification within Orders II–XXI: in some cases sub-divisions of M.L.H.s are identified as census industries) – although in some instances the figures relate to groups of industries.

The data given in the article relate to:

Average number employed, showing operatives and other employees separately;

wages and salaries, similarly analysed;

sales, showing goods produced and work done on the one hand and merchanted goods and canteen takings on the other;

purchases, analysed between purchases of materials for processing, packaging and fuel on the one hand and goods for merchanting and canteen purchases on the other;

gross output;

net output;

net output per head;

percentage response, based upon the ratio of employment of returns received to total employment in each industry or industry group.

Comparable data relating to the 1963 Census of Production is also given in the article. As the 1963 information was originally based upon an earlier version of the S.I.C. it has been necessary to reclassify the data to conform with the current classification being used for the 1968 Census.

Consideration is being given to the publication of two more articles in the *Board of Trade Journal* during the first half of 1970 in which some of the provisional data of the 1968 Census will be analysed by size of establishment and, separately, by area. More information about these articles will be given nearer the time of publication.

Census of Production for 1970

The new system of industrial statistics, described in *Statistical News*, 1.7, consists of quarterly, annual and less frequent inquiries co-ordinated through a central register of establishments. Progress with the quarterly inquiries is described in this issue, page 8.7, by Mr. R. W. Green. It is now appropriate for the new annual censuses to be established. The first of these is to be taken for the year 1970, following discussion with the Census of Production Advisory Committee.

The census will cover all mining, manufacturing and public service (gas, electricity, water) industries; but not construction. All businesses with more than 25 persons employed in these industries will be included; in certain industries where small businesses are particularly important all those with more than 10 persons employed will be covered.

The information to be required in accordance with the provisions of the Statistics of Trade Act, 1947 will include:

Persons engaged in the business, distinguishing working proprietors, operatives, and administrative technical and clerical employees;

wages and salaries paid;

stocks at the beginning and end of the year;

capital expenditure;

payments for work given out and for transport;

total purchases;

sales and work done; with separate figures for merchanted goods and for canteen takings;

Excise duties, etc. where necessary.

No details of commodities sold or purchased will be sought in the census since this information is being collected in related inquiries in the revised system of industrial statistics.

As in the 1968 census, firms will be asked to agree to the publication of their names and addresses as contributing to the sales of the major products of the appropriate industry, but without disclosure of any other details of their activities.

Reorganisation of industrial statistics

Under this heading, in earlier issues of *Statistical News*, there have been several references to discussions taking place with trade associations and other industry interests about the nature of short-period output statistics in future. The background to these discussions is the subject of an article by R. W. Green (see page 8.7 of this issue). Each industry is being considered separately – industries being defined as all firms classified to particular Minimum List Headings of the Standard Industrial Classification, or official subdivisions of these. The following industries can now be added to the 40 or more reported earlier, where discussions have already started:

Stone and Slate Quarrying and Mining	MLH 102
Chalk Clay Sand and Gravel Extraction	MLH 103
Bacon Curing, Meat and Fish Products	MLH 214
Fruit and Vegetable Products	MLH 218
Spinning and Doubling on the Cotton and Flax Systems	MLH 412
Weaving of Cotton Linen and Man-made Fibres	MLH 413
Leather (Tanning and Dressing) are Fellmongery	MLH 431
Building materials not elsewhere specified	MLH 469/2
Timber	MLH 471
Wooden Containers and Baskets	MLH 475
Miscellaneous Wood and Cork Manufactures	MLH 479
Linoleum, Plastics Floor-covering, Leathercloth, etc.	MLH 492

An inquiry which is part of the new system has been conducted since the end of 1968 amongst firms in the printing and publishing industries (MLHs 485, 486 and 489). From the beginning of 1970 it will be joined by comprehensive quarterly inquiries for:

Metal furniture	MLH 399/1
Furniture and Upholstery	MLH 472
Bedding etc.	MLH 473
Shop and Office Fitting	MLH 474

These inquiries, asking for sales by product detail, will be conducted by the Business Statistics Office amongst firms with 25 employees or more. Until now there have been no short-period output figures for metal furniture, non-domestic furniture, soft furnishings, and shop and office fitting. The two existing quarterly inquiries for domestic furniture and bedding will now be discontinued.

On a monthly basis, the metal furniture industry will be covered by the new inquiry sent to part of Order XII, described below. The current monthly turnover and orders inquiry for domestic furniture will continue and coverage extended to all domestic furniture manufacturers with 25 employees or more. The Furniture Development Council, The Association of Folding Furniture Makers and the National Bedding Federation will continue with fast marketing surveys amongst their members every month. There will be no monthly figures for shop and office fitting.

Also from the first quarter 1970, there will be a simply monthly turnover and exports inquiry to all firms of 100 employees or more classified to MLHs 393, 394, 395 and 399 – part of Order XII. The primary aim of this inquiry is to provide information for the Index of Industrial Production. It is being introduced in advance of any consideration of the nature of quarterly product-detail inquiries in these industries, because there is an urgent need to improve the index in this sector of industry.

Further information on the new inquiries described above can be obtained from: Ministry of Technology, Statistics Division, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877 Ext. 3159).

Census of Distribution for 1971

The Business Statistics Office has been authorised to take a Census of Distribution for 1971. The scope of the census will be similar to the full census taken for 1961 and the sample census taken for 1966. It will cover the retail trades as defined by Minimum List Headings 820 and 821 of the Standard Industrial Classification (Revised 1968); hairdressing; laundering and dry cleaning; pawnbroking; and footwear repairing. The installation, maintenance and repair of consumer goods, towel and other linen hire and radio and television relay services will also be included.

In accordance with the provisions of the Statistics of Trade Act, 1947, the President of the Board of Trade has appointed an Advisory Committee which includes representatives of both the suppliers and users of retail trade statistics. Its members are:

J. Stafford, C.B. (*Chairman*)
E. F. Bates, J.P.
R. E. Beales, C.B.
Dr. J. B. Bracewell-Milnes
R. Bradshaw, J.P.
J. W. Cameron, B.A.
Miss Eileen Cole, B.A. (Econ) (Cantab)
H. G. Daniels, J.P.

J. W. Fall
M. C. Fessey
Lady Hall
Prof. K. S. Lomax, B.Sc., M.A. (Admin)
B. Lyons, C.B.E.
Dr. B. Mitchell
J. Phillips
A. J. Sturt
G. C. Walton
D. L. Wilkinson
R. W. Makepeace } *Joint*
Miss H. G. Morgan } *Secretaries*

The address of the Secretaries is Business Statistics Office, Chartist Tower, Dock Street, Newport, Mon., NPT 1XG.

Catering trades inquiry

The Business Statistics Office is planning a large scale inquiry into the catering trades in respect of 1969. The inquiry, which will be on similar lines to that held in 1964, is primarily intended to up-date the bases of the quarterly and annual inquiries into stocks, capital expenditure and turnover of the catering trades. The inquiry will be addressed to all licensed residential premises and a sample of restaurants, cafes, fish and chip shops etc., public houses, licensed and registered clubs, catering contractors and staff canteens. Information will be sought on stocks, capital expenditure, an analysis of turnover and for the first time, the number of bedrooms, capital expenditure and turnover of each licensed residential establishment. Questionnaires will be despatched to selected firms in the late spring of this year. The results of the inquiry are expected to be published in the *Board of Trade Journal* in the autumn of 1971.

FOOD AND AGRICULTURE

National Food Survey

The eighteenth *Annual Report of the National Food Survey Committee* deals with household food expenditure, consumption, prices and nutrition in 1967; a Supplement gives some preliminary results for 1968. The *Report* shows that between 1962 and 1967 average household food expenditure rose by nearly 17 per per cent while food prices rose by about 14 per cent; two-thirds of the resultant gain of 2½ per cent in the real value of food purchases per head took place between 1965 and 1967, and almost the whole of the five years' gain was due to an increase of nearly 16 per cent for convenience foods. Because of this concentration of growth in the convenience food sector during the sixties the *Report* gives some prominence to an examination of regional and other variations in consumption of these foods. In 1967, average household spending on convenience foods rose to 8s. 8d. per person per week and accounted for nearly a quarter of expenditure on food for consumption in the home, but for only about a sixth of its energy value and protein content and rather less of some other nutrients. In Scotland and in the Northern and the Yorkshire and Humberside regions about one-quarter of household food expenditure was on convenience foods, but in Wales and the South of England the proportion was nearer one-fifth. Expenditure on canned foods was particularly high in the north and low in the south, while average expenditure on quick-frozen convenience foods was relatively high in the south and in Wales but comparatively low in the north and in Scotland. Between 1962 and 1967, expenditure on quick-frozen foods expanded two and a half times as rapidly as that on canned foods, though expenditure on the latter was still nearly six times as great as that on the former.

The nutritional section of the *Report* makes use of recommended intakes of nutrients drawn up by the Committee on Medical Aspects of Food Policy of the Department of Health and Social Security, as well as the British Medical Association scales; the *Report* examines, in the context of the new recommendations, the concentration of nutrients in relation to calories in the average diet of different types of household. Tables are also included to show the comparative costs of nutrients in different kinds of food.

Estimates of the price elasticities of demand for certain foods are given in the *Report*, and estimates of income elasticities of demand in an appendix.

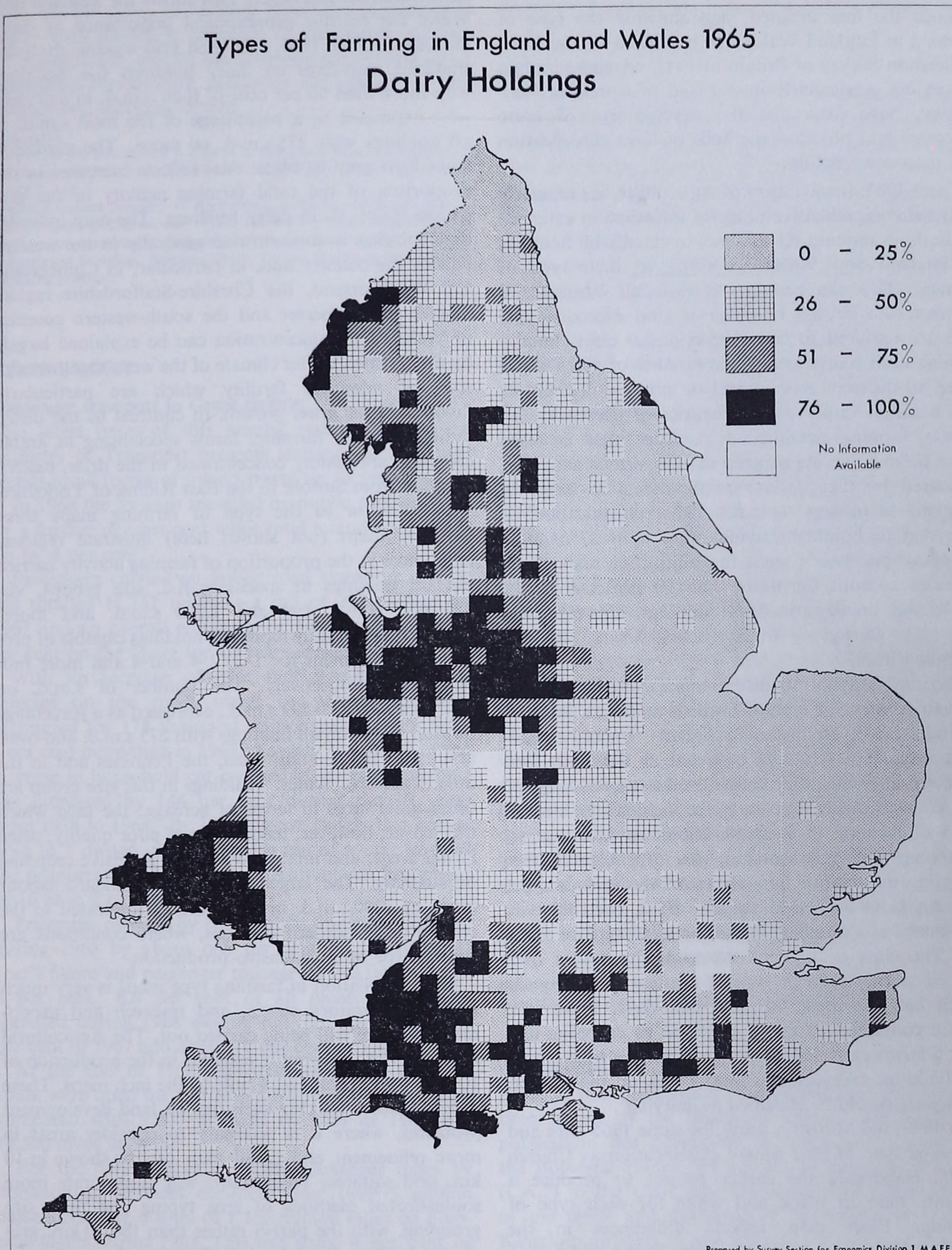
The arrangements for the early publication of summarized results of the National Food Survey, and for the supply of unpublished data which may be of interest to those concerned with the home market for food, were outlined in *Statistical News*, 1.27.

Reference

Household Food Consumption and Expenditure :1967 (with a Supplement giving provisional estimates for 1968), (HMSO), December 1969 (Price 23s. 0d. by post 24s. 2d.)

Farming maps of England and Wales

In determining agricultural policy and the best methods of its implementation, it is useful to be able to see the geographical distribution of the various types of farming or agricultural production: that is, to have type of farming maps. Periodic revision of objectively constructed maps will reflect broad changes in the regional pattern of cropping and stocking. Such maps help to indicate the most efficient allocation of advisory and research resources and to provide, at a glance, an assessment of the regional effects of policy changes which affect a particular type of farming. Similarly, they can be used to estimate the effect of regional variations in weather conditions or disease on the national production of a particular commodity. They



Types of Farming in England and Wales 1965
Dairy Holdings
0 - 25%
26 - 50%
51 - 75%
76 - 100%
No Information Available
Prepared by Survey Section for Economics Division 1 M.A.F.F.

are also of general interest to the agriculturalist and the social scientist.

Since the first detailed map showing the type of farming in England Wales was published by the Land Utilisation Survey of Britain in 1941, advances in data processing, particularly in the field of computer technology, have facilitated the development of more elaborate and objective methods of farm classification and map construction.

From 1963, the Ministry of Agriculture has regularly used the comprehensive range of information collected at the June agricultural censuses to classify all holdings in England and Wales according to their type of farming. This can be done because all farmers and growers who occupy holdings of land exceeding one acre are required to complete a postal questionnaire in June each year showing the number of acres under some 80 different agricultural or horticultural crops, and numbers in some 40 categories of livestock. The type of farming classification currently used is based upon the relative importance of the various activities, measured by their labour requirements in terms of standard man-days (s.m.d.). The classification is restricted to holdings having more than 275 s.m.d., i.e. about one year's work for a full-time man. Such holdings account for more than 90 per cent of the total s.m.d. on all agricultural holdings. This classification was referred to in *Statistical News*, 1.29 and described in 3.30.

The first attempt to utilise this farm classification data to construct a type of farming map was made by Church, Boyd, Evans and Sadler. Using a one-sixth sample of the data collected at the June 1965 agricultural census, they constructed a map of England and Wales showing, in colour, the incidence of various types of farming in each 10 kilometre grid square. This map was based on an area type classification reflecting the relative importance of the various types of farming in each grid square. First, each farm in the square was classified according to its type of farming. The class or type of the grid square was then defined as that class or type of farming in the square which had the most standard man-days. Thus, if a square contained 20 farms classified as cropping and only 5 farms classified as dairying, but the total s.m.d. on the latter exceeded the total s.m.d. on the former, the square would be classified as dairying.

In 1969, the Ministry, using the same 1965 data and the same type of grid square classification as Church *et al.*, elaborated the earlier project to produce a separate map in black and white for each type of farming. Each map reflects differences in the proportion of total farming activity in the grid square which is carried out on holdings of a particular type, or, in some instances, of a combination of two types.

One of the maps constructed by the Ministry is reproduced on page 8.27. This shows for England and Wales the relative geographical importance of dairy farming at June 1965. For each grid square, the total standard man-days on dairy holdings (i.e. holdings with more than 50 per cent of their s.m.d. in dairying) were expressed as a percentage of the total s.m.d. in all holdings with 275 s.m.d. or more. The gradation from light grey to black thus reflects increases in the proportion of the total farming activity in the grid square which is on dairy holdings. The map indicates that dairying is concentrated generally in the western half of the country and, in particular, in Cumberland and Westmorland, the Cheshire-Staffordshire region, Dorset and Somerset and the south-western counties of Wales. This concentration can be explained largely by the warmer, wetter climate of the west, together with soils of adequate fertility which are particularly favourable for grass growth. In contrast to the distribution of dairy farming, farms specialising in arable cropping are mainly concentrated in the drier, eastern counties from Suffolk to the East Riding of Yorkshire.

In addition to the type of farming maps three Ministry maps (not shown here) illustrate regional differences in the proportion of farming activity carried out on holdings in specific s.m.d. size groups, viz. 275–599, 600–1, 199 and 1,200 s.m.d. and more: these groups broadly represent holdings capable of providing employment for 1–2, 2–4 and 4 and more full-time men, respectively. The number of s.m.d. on holdings with 275–599 s.m.d., expressed as a percentage of total s.m.d. on all holdings with 275 s.m.d. and over, is greatest in the south-west, the Pennines and in the upland areas of Wales. Holdings in this size group are often quite large in terms of acreage: the land which they cover, however, tends to be of poor quality, often in hill areas, and unable to support intensive cropping or stocking. The larger farms with standard labour usage of 1200 s.m.d. or more are concentrated in the eastern and southern counties, where conditions are suitable for more intensive production.

The compilation of farming type maps is very much in the exploratory stages, and research and experimentation are still being carried out. The Agricultural Land Service is currently engaged in the production of 10 mile to the inch and ¼ mile to the inch maps. These should help in making decisions on land development problems, where it is necessary to consider areas in more refinement and detail than can be shown in 10 km. grid squares. These maps will incorporate more sophisticated methods of area typing and farm size grouping, with the parish rather than the 10 km. grid square as the unit, and using all, rather than a sample, of the holdings with 275 or more s.m.d. returned at the June census. In addition, the Social Science Research

Council has recently made a grant to Professor J. T. Coppock of the University of Edinburgh for research into the definition of farming types and farming type areas, with particular reference to alternative methods of classification and to the development techniques of automatic cartography, including the use of the line printer as a mapping device.

References

Church, B. M. and others. A type of farming map based on agricultural census data. (*Outlook on Agriculture 5* (5), 1968, pp. 191–196). Published by I.C.I. Ltd.

United Kingdom Ministry of Agriculture, Fisheries and Food. *Type of farming maps of England and Wales*. (M.A.F.F., 1969). Available from Ministry of Agriculture, Fisheries and Food (Publications), Block C, Government Buildings, Tolcarne Drive, Pinner, Middlesex (Price 5s. 0d. including postage).

TRANSPORT

Passenger transport in Great Britain

The latest issue of this annual publication by the Ministry of Transport presents statistics of the latest trends in all forms of inland travel up to 1968.

In 1968 the mileage travelled by public transport fell by a further one per cent while total inland travel went up by 4 per cent.

Passengers carried on public road transport and by rail totalled 11,741 million – a fall of 397 million on 1967 and an overall reduction of 3,881 million, or 25 per cent on the figure for 10 years earlier.

With an increase of over half a million private vehicles on the road, travel by private transport accounted for 178 thousand million passenger miles – 6 per cent more than in 1967. Largely as a result of the increase in household car ownership, private transport has increased by 144 per cent during the 10 years from 1958 to 1968. By 1963 approximately one household in 3 owned or had regular use of a car: in 1968 the proportion was one in 2, with about one household in 16 have 2 or more cars.

Passenger mileage by road public transport declined during 1968 by about one per cent on the previous year's figure and passenger mileage by rail fell by some 2 per cent. 8.8 per cent of all passenger mileage travelled during 1968 was by rail, compared with 9·4 per cent in 1967 and about 18 per cent in 1958.

At the end of 1968 approximately 9,500 miles of route were open for British Railways passenger traffic, compared with 9,900 miles at the end of 1967 and 14,500 miles in 1958.

For the first time in a decade passenger miles by domestic air services declined. Just over 5 million passengers flew a total of 1,156 million miles on domestic flights during 1968. This was some 4 per cent or 51 million miles less than in 1967. The total number of passengers miles flown during 1968 was still almost 4 times as great as in 1958.

Reference

Passenger Transport in Great Britain, 1968 (HMSO), February 1970

Road accidents

The latest issue of the Ministry of Transport's annual booklet *Road Accidents* contains 25 tables including detailed analyses of road accidents and casualties in 1968 as well as a number of historical series; amongst the detailed tables separate sections are devoted to statistics of accidents, casualties, vehicles involved and drivers involved.

This publication which is produced for use mainly by road safety workers, highway engineers, police and administrators (although many research workers and ordinary members of the public also find it of interest) has been expanded to include tabulations on a number of aspects of current interest. In one of these a breakdown is given of numbers of fatal and serious accidents by type of location (eg class of road, built-up/non-built-up areas, junctions and stretches of road between junctions) and by numbers of vehicles involved. In built-up areas road accidents are seen to be largely a junction problem, whereas in non-built-up areas they mainly occur away from junctions. Less than one per cent of accidents occur on motorways.

Another new table shows the numbers of vehicles in accidents involving skidding. Skidding would appear to be an important immediate cause of (or aggravator of) many road accidents for 16 per cent of all vehicles involved in 1968 skidded during an accident while 37 per cent of motor scooters skidded during wet road accidents in summer. Of the other new tables, one gives the numbers of some of the main types of accident situation, another shows the trends in car driver casualties for different age groups and a third gives a breakdown of accidents in speed limit areas and in daylight and darkness.

Explanatory notes are included for nearly all the tables and introductory articles provide a review of many aspects of road safety.

Reference

Road Accidents 1968, (HMSO), December 1969 (Price 11s. 0d.)

Civil aviation

Another new publication of civil aviation statistics has been issued by the Board of Trade. Following the publication last November of passengers carried on the domestic routes, an additional *Business Monitor* (CA.7) in the Civil Aviation series now gives details of the uplift and discharge of passengers at United Kingdom airports to and from destinations overseas.

These statistics for international routes are designed to show the broad geographical pattern of the traffic with separate figures for important routes or groups of routes. Separate figures for passengers carried on scheduled and charter services are given for most of the routes.

The first issue, in January, of the new statistics dealt with traffic in 1968. Subsequent publications will give quarterly figures and figures for the comparable quarter of the previous year.

This new *Monitor* is available on subscription at 7s. 6d. per annum: reduced rates are offered for bulk orders. Orders should be sent to HMSO P.O. Box 569, London S.E.1.

HOME AND OVERSEAS FINANCE

Public expenditure

The White Paper *Public Expenditure 1968-69 to 1973-74* (Cmnd 4234) published in December 1969, sets out the government's plans for public expenditure in the current financial year 1969–70 and in the following two years. It also shows the provisional allocations for 1972–73 and 1973–74 for which the government have not yet taken detailed decisions. This is the first of the annual White Papers presenting public expenditure for a period of years ahead, envisaged in the Green Paper *Public Expenditure: A New Presentation* (Cmnd 4017) published in April 1969.

The White Paper is in three main sections. Part 1 sets out the government's general plans for the public sector, its size and the priorities within it. Part 2 describes in considerable detail the composition of each of the expenditure programmes and the policies on which they are based, while Part 3 presents additional statistical material. A technical appendix defines the principles on which the figures have been compiled, including a description of the price basis adopted and of the new concept of the relative price effect.

The presentation of the White Paper follows that recommended in the Green Paper. The central feature is a table showing public expenditure and receipts at constant prices for the years 1968–69 to 1971–72, analysed into three broad categories so as to illustrate the demand implications of the different types of receipt and expenditure. Transactions are classified into the purchase of resources *less* charges; transfers, taxation, etc.; and transactions in assets. Since both receipts, which are projected on the basis of certain specified assumptions about rates of central government and other taxation, and expenditure are expressed at constant prices, the overall balance gives an approximate indication of broad trends in the borrowing requirement of the public sector, and of its expected value in the current year. A second balance in this table, struck after excluding transactions in assets, provides a better guide to the impact of public sector operations on real demand in the short term. The improvement in the current year shown by this balance reflects the contribution of the public sector to the switch of resources into the balance of payments.

The estimates of expenditure up to 1973–74 have been made on the assumption that public expenditure in total should be allowed to increase broadly in line with the expected growth of output as a whole. For this purpose the cautious assessment has been adopted that the rate of growth of the nation's resources will be at the lower end of the range of just under 3 per cent to about 4 per cent a year envisaged in the Green Paper *The Task Ahead* published in February 1969. On this basis public expenditure is planned to increase at 3 per cent per annum from 1968–69 to 1971–72, while the provisional allocations for 1972–73 and 1973–74 relate to an increase in total public expenditure of about 3½ per cent in each of these years. All these rates of increase include an allowance for the relative price effect, the adjustment which is necessary to allow for the fact that over a period of time a series of figures at constant prices will understate the share of national resources absorbed by public expenditure.

Supporting tables, one for each year up to 1971–72, extend the main analysis to include the classification of expenditure and, where possible, receipts by programme. Additional tables in Part 3 of the White Paper analyse expenditure by programme and spending authority, by economic category as defined in the national income statistics, and by programme and major economic category.

In future years it should be possible to refine the statistical techniques used, and in particular to measure performance against estimates more extensively. But already it may be said that the White Paper has introduced a degree of sophistication into the presentation of public finance, as a background to informed discussion, which is probably unique in the world.

References

Public Expenditure 1968-69 to 1973-74, Cmnd 4234 (HMSO), December 1969 (Price 8s. 6d.). *Public Expenditure: A New Presentation*, Cmnd 4017 (HMSO), April 1969 (Price 3s. 6d.). *The Task Ahead, Economic Assessment to 1972* (HMSO), February 1969 (Price 10s. 6d.)

Company finance

The results of the Board of Trade's analysis of the accounts published by large companies, which have hitherto appeared in a number of different publications, have been brought together in a new annual publication in the *Business Monitor* series, the first of which appeared in December. It contains a guide to where earlier figures may be found.

The new *Monitor* (M.3) is obtainable from HMSO, P.O. Box 569, London, S.E.1, price 7s. 6d.

The quarterly series of articles in the *Board of Trade Journal* is being discontinued; but summaries of the most recent accounts analysed will continue to appear in *Financial Statistics*.

New survey of company liquidity

The new survey of large industrial and commercial companies is being carried out quarterly from the beginning of 1970. Its purpose is to obtain an early indication of changes in companies' liquid position, and with this end in view firms are asked to provide the information requested within a fortnight of the end of each quarter.

Financial Statistics (changes)

The November 1969 issue of *Financial Statistics* introduced new sections on the public sector; on money, with four new tables showing the relationships between money supply and domestic credit expansion; and the personal sector.

Tables showing selected liquid assets of the company and personal sectors which have previously only appeared annually now appear in each issue and will be updated quarterly. A new table of tax receipts by departments other than the Board of Inland Revenue and H.M. Customs and Excise also appeared for the first time in November.

Reference

Financial Statistics, (HMSO) Monthly (Price 16s. 0d.)

Inland Revenue Statistics

Most of the statistics produced by the Inland Revenue, particularly those of general economic interest, are this year being published in March separately from the *Board of Inland Revenue's Annual Report*, which was published earlier this year. The new volume, entitled *Inland Revenue Statistics*, will contain most of the statistical data previously given in the Board's Annual Reports and some new information. The data will be presented in a new and larger format in line with most other Government statistical publications. The information has been rearranged to bring together data on taxation, incomes and wealth in self-contained sections. The data will be given for a greater run of years than hitherto which will increase their value for reference purposes. The statistics will be accompanied by brief notes on the taxes administered by the Inland Revenue and by detailed notes on the statistical tables. A more detailed outline of the taxes administered by the Inland Revenue was given in the Board's *Annual Report*.

The volume will include, *inter alia*, the results of the 1967/68 Income Survey. The results will be analysed by income groups, family circumstances and type of income. There will be a number of tables giving a breakdown of the data into Standard Regions.

Customs and Excise statistics

The 60th Report of the Commissioners of H.M. Customs and Excise was published at the end of January. The *Report* covers the year ended 31 March 1969 and takes the customary form of a narrative review of the year's activities followed by an Appendix giving descriptions and statistics of the various Customs and Excise duties. Most of the statistical tables cover ten years.

Reference

60th Report of the Commissioners of H.M. Customs and Excise for the year ended 31 March 1969, Cmnd. 4256 (HMSO), January 1970 (Price 16s. 6d.)

Overseas aid

British Aid Statistics: Statistics of Economic Aid to Developing Countries 1964 to 1968 (published somewhat belatedly because of delays in printing) is a regular annual publication, now of four years' standing. It documents the flow of financial resources and of technical skills from Britain to developing countries, giving considerable detail of the official aid flows. In so far as the greater part of the funds for official flows are on the Ministry of Overseas Development Vote, the volume provides in effect detailed statistics of the activities of that Ministry, supplementing *An Account of the British Aid Programme* published in August 1969.

Series for five years are shown for the greater part of the data which is on the basis of calendar years since this is required for international comparisons and for calculating progress towards the UNCTAD 'one per cent' target. Since the operational basis of the Ministry is, nevertheless, the financial year, similar tables on this basis are prepared towards the end of December each year. These are available for reference.

The provision of technical assistance, including skilled persons to assist developing countries, has a high priority in the aid programme and details of recruitment and of persons in post at the end of the year are provided in *British Aid Statistics*, classified according to field of work and country of destination. Financial aid, with grants distinguished from loans, is also analysed according to purpose and to recipient country. The aggregate in money terms, including the cost of technical assistance, provides the total of aid flows. Commitments are distinguished from disbursements, and amortization and interest payments receivable up to 1973 on account of outstanding aid loans are also shown.

Aggregating total 'aid', nevertheless, involves difficulties of definition since these vary according to the purpose to which the statistics are put. They are illustrated in the following table which shows a set of aggregate figures for the calendar year 1968. (The table, which is based upon the latest information, shows some differences from the figures published in *British Aid Statistics*. These are almost wholly due to recent revisions of the estimates of direct investments and guaranteed exports credits.)

British aid programme and other financial flows to developing countries
Disbursements in £ million, 1968

		% of GNP
Basic aid programme	201·4	
Gross aid programme	202·8	
Gross official flows	210·6	
Net official flows	178·5	0·42
Net private flows	142·1	0·33
Total net financial flows	320·6	0·75

The principal component of the total of British governmental assistance to developing countries is the *Basic aid programme* for which, up to 1970/71, an annual ceiling of £205 million has been laid down. Currently, and for the next few years, it is necessary to add to this a few extra items (in 1968, for example, certain aid to Malaysia and Singapore) which it is decided in any particular year must be met under the official aid programme, additional to the ceiling, to give the *Gross aid programme*.

The Gross aid programme aggregate is however usually less than the *Gross official flows* from this country to developing countries, the latter figure being reported to the Development Assistance Committee of OECD for international comparisons and used in evaluating the total contribution from the British public sector towards the UNCTAD 'one per cent' target. One reason for the discrepancy is the fact that the Basic aid programme includes Exchequer advances to the Commonwealth Development Corporation, but the overseas investment of that Corporation may be greater or less than the sum of Exchequer advances, due to the timing of the CDC investment programme and the fact that it reinvests its profits. In order to translate the Exchequer advances figure into that showing CDC investment overseas, to obtain the relevant flow out of the country, an adjustment is made representing the difference between the two figures. Another reason is that so far there have always been a few items of flows overseas not specifically included in the Aid Programme (in 1968 the contingency payments to Zambia and a number of miscellaneous grants).

If the figure of Gross official flows is reduced by the appropriate amortization payments received during the year in question, the resulting figures of *Net official flows* represents the public sector's contribution towards the UNCTAD target. The aggregate of these Net official flows and of Net private flows (in 1968 direct investments were estimated as £79·0 million and guaranteed export credits as £63·1 million) gives the *Total net financial flows* of resources to developing countries. These flows in 1968 amounted to 0·75 per cent of the gross national product at market prices, to be compared with the target of 1·00 per cent of GNP for net public and private flows combined set by UNCTAD.

References

British Aid Statistics: Statistics of Economic Aid to Developing Countries 1964 to 1968, (HMSO), September 1969 (Price £1 7s. 6d.)

An Account of the British Aid Programme, (HMSO), August 1969 (Price 2s. 6d.)

Balance of payments of overseas sterling area

Seasonally adjusted figures were introduced in *Economic Trends*, September 1969. The seasonal adjustments are applied to the quarterly figures for the current account of the balance of payments of the overseas sterling area taken as a whole. A note on the methods used was given on page xlviii.

Financing of overseas investment

A written Parliamentary Answer (*Hansard*, 12th November, column 118), extends back to 1958 the run of years covered by the analysis of the financing of overseas private investment, first published in Table 23 of the 1969 issue of the balance of payments Pink Book (*Statistical News*, 7.35).

WAGES AND EARNINGS

Cost of equal pay

A summary of results of an inquiry into the direct and indirect costs of introducing equal pay for men and women in selected industries was published in the *Employment & Productivity Gazette*, January 1970. The enquiry was undertaken last year by the Department of Employment and Productivity in collaboration with the Confederation of British Industry and the Trades Union Congress.

NATIONAL BOARD FOR PRICES AND INCOMES

Salary structures

In November 1969 the NPBI reported on salary structures for managerial, executive, professional and technical (MEPT) staff. For this report the Board conducted a national survey into firms' salary practices for such staff. The enquiry covered a stratified sample of 1,800 organisations employing 250 persons or more in manufacturing industry, distribution and part of the finance sector. Full information was received about 41 per cent of MEPT staff in the sample but data on the use of salary limits was obtained from 60 per cent of the firms and was used as a control to gross up the more detailed enquiry.

The survey covered details of firms' salary review policy, the appraisal of performance, the factors taken into account when revising salary levels, techniques used to control both the total salary bill and the amount of individual salary increases and particulars of any major reorganisations of salary structures. Firms which had defined salary limits for MEPT staff were asked to supply additional data for each group of MEPT staff for which their salary practices differed. These questions dealt with the part played by trade unions in salary negotiations, the type of salary limits associated with jobs, individual salary progression and secrecy surrounding salary levels as well as details of graded structures in terms of the method used for grouping jobs into grades, the width of salary ranges associated with grades and overlaps between grades.

The results are analysed by size of firm and in some cases by sector of industry.

Reference

Salary Structures, National Board for Prices and Incomes, Report No. 132, Cmnd. 4187 (HMSO), November 1969 (Price 9s. 6d.)

Remuneration of solicitors

In November 1969 the NBPI made its second Report (but the first under its standing reference) on the Remuneration of Solicitors. The earlier report was published in February 1968. The latest report gives the results of a survey of income and expenditure addressed to a 10 per cent sample of full-time solicitors' practices in England and Wales, for which the response rate was 61 per cent. The main survey covered numbers of principals and staff, income, items of expenditure, capital employed and the extent to which costs accounting was practised. The results relate mainly to 1968 and are compared with the earlier survey which related mainly to 1966. A further survey was made into sources of income based on bills delivered in the second quarter of 1969. Analyses are given by size of practice and area.

Reference

Standing Reference on the Remuneration of Solicitors. First Report National Board for Prices and Incomes, Report No. 134, Cmnd. 4217 (HMSO), November 1969 (Price 5s. 6d.)

Smithfield Market workers

The NPBI Report on Smithfield Market shows the results of a survey of earnings, costs and prices.

Reference

Remuneration of Workers in Smithfield Market, National Board for Prices and Incomes, Report No. 126, Cmnd. 4171 (HMSO), October 1969 (Price 8s. 6d.)

Ground staff at aerodromes

The NBPI report on this subject, published in October 1969, covered staff employed by the British Airports Authority, local authorities and the Board of Trade. It contains various analyses of the hours of work and earnings by occupation and type of airport based on a sample survey conducted by the Board.

Reference

Pay of Ground Staff at Aerodromes, National Board for Prices and Incomes, Report No. 128, Cmnd. 4182 (HMSO), October 1969 (Price 6s. 0d.)

Pay in the film processing industry

A survey of the pay and conditions in June 1967 and June 1969 of staff employed in 12 film processing laboratories was made by the NBPI for the reference on this industry.

Reference

Pay of Certain Employees in the Film Processing Industry, National Board for Prices and Incomes, Report No. 131, Cmnd. 4185 (HMSO), November 1969 (Price 3s. 0d.)

INTERNATIONAL

Association of African Statisticians

Delegates of the 34 countries present at the recent Conference of African Statisticians, together with non-African statisticians working in Africa, have set up an Association of African Statisticians. A nine-man executive committee – President, Mr. Taieb Bench-heikh of Morocco – has been elected for a two-year period.

The aim of the Association is to encourage statistical research in Africa and to increase the contribution of statistics to economic and social development by improving methods and adapting them to African experience. It will also seek to encourage a greater exchange of scientific information on African demographic, economic and social affairs between African statisticians.

The Association intends to start a publication which will provide a medium for regular communication between African statisticians and with other national and international associations.

UNESCO

Annotated Accessions List of Studies and Reports in the Field of Science Statistics was published by UNESCO in September 1969 and is available from HMSO. This publication contains selected documents received by the UNESCO Statistical Office in response to a request to Member States for material relating to scientific and technical manpower and the financing of research and experimental development and related activities.

PUBLICATIONS

***National Institute Economic Review**

The November 1969 issue of the *National Institute Economic Review* (available from the National Institute of Economic and Social Research, 2 Dean Trench Street, Smith Square, S.W.1) was the fiftieth. To mark the occasion it includes a foreword by Lord Roberthall, who as Economic Adviser to the Government took the initiative which led to the *Review's* publication and is now Chairman of the Executive of the Institute, on the role of the Review as he originally saw it and as it has in fact evolved. The issue also contains an article under the heading 'How well does the National Institute Forecast?' by M. C. Kennedy of Manchester University and a note by Mrs. A. D. Morgan on the effects of including in the trade statistics British-owned goods temporarily used abroad and foreign-owned goods sent to this country for process and repair.

Mr. Kennedy analyses the errors in the Institute's forecasts at the beginning of each year from 1959 to 1967 of the growth of real gross domestic product and its main components from the final quarter of the previous year to the final quarter of the current year. He shows that if the forecasts are adjusted to take account of the effects of subsequent policy changes the direction of change in the rate of growth in gross domestic product was wrongly predicted only in 1962. The forecasts of component items were also quite good in this respect. But their mean errors exceeded the mean deviations of the actual changes from their average over the period except for consumers' expenditure, imports of goods and services, and indirect taxes. Moreover the mean errors are increased for consumption and imports (and unchanged for indirect taxes) if the original forecasts of these items, already corrected for effects of policy changes, are further adjusted to allow for the effects of errors in the forecasts of the remaining items (public authorities' current spending, investment and exports). For gross domestic product as a whole the mean absolute error was 1·4 per cent, compared with a mean deviation of the actual changes from their average of 1·8 per cent. There was some tendency to under-estimate the rate of growth, the mean bias or algebraic error being −0·6 per cent.

Statistical appendix

The statistical appendix of the *National Institute Economic Review* has been re-arranged. Beginning with No. 50, the November 1969 issue, it includes a number of new series in the usual layout (10–11 years, the last 2–3 years by quarters) such as:

GDP indices from expenditure, output and income side, and also the Institute's 'compromise estimate';
stock/output ratios for the whole economy and for manufacturing;
industrial survey results (the Board of Trade investment intentions survey and the CBI's industrial trends survey) for the last year, covering 25 major indicators;
volume indices of retail sales, seasonally adjusted;
considerably more details concerning the balance of payments;
import prices (unit values) in full detail;
seasonally adjusted GNP data for the USA, Canada, Japan, Australia, West Germany and Belgium;
world trade totals;
totals for world reserves.

Series concerning output per man-hour in manufacturing, hourly earnings, wage costs per unit of output, shares in world trade of manufactures, and export prices of manufactures in the leading industrial countries will be continued without change.

SSRC Newsletter

Newsletter 7 issued in December 1969, contains an account of a conference held by the SSRC in the summer on Social science research inside and outside government. The aim was to discuss with the government the proper role of government and academic research and how the SSRC could act most helpfully.

The conference was opened by Sir William Armstrong and a shortened version of his talk is given in the *Newsletter*. The *Newsletter* also includes a paper on 'Economic forecasting' by David Worswick, Director of the National Institute of Economic and Social Research and a note on 'Educational research' by Professor Jack Tizard of London University.

An interesting description is included of the purpose and value of the National Computer Program index.

The SSRC is to conduct a systematic review of current university level research and teaching in social statistics and the application of statistical techniques to social science problems. The review will consist of a series of informal visits – mainly to Statistics departments by Dr. S. Rosenbaum, Honorary Secretary of the Royal Statistical Society and a Chief Statistician in the Central Statistical Office.

Index number construction

Studies in Official Statistics: Research Series No. 3 will be published in March 1970 by HMSO for the Central Statistical Office. It is entitled *Some Problems of Index Number Construction* by R. F. Fowler, Director of Statistical Research, Department of Employment and Productivity. This study makes use of the detailed

*Indicates that the contribution refers to work outside the Government service but is included because of its relevance to Government statistical work.

results of the Family Expenditure Survey from 1958 to 1967 to demonstrate in exact quantitative terms the differences between fixed-based Laspeyres and Paasche indices and between chain Laspeyres and Paasche indices of changes in retail prices and in the quantum of average household expenditure covered by the official Index of Retail Prices. In addition to indices covering All Items of expenditure included in the Index of Retail Prices, indices for the Food Group and for the Transport and Vehicles Group are considered separately. The results have a wider application and will be of interest to all concerned with the construction and interpretation of economic index numbers.

Scottish budget

Estimates of Central Government Revenue and Expenditure Attributable to Scotland for the Financial Year 1967/68 – A Scottish Budget – was published by H.M. Treasury in October, 1969. Copies are available from the Scottish Development Department, St. Andrews House, Edinburgh, EH1 3DD.

Input–output tables for the United Kingdom 1963

This publication, No. 16 in *Studies in Official Statistics*, due to be issued at the end of February 1970, presents the full results of the C.S.O.'s study into the interdependence and cost structure of British industry in 1963. The 22 tables in the 100 page book include 70×70 industry and commodity tables, an imports matrix and a full analysis of final demand by commodity group and function.

Education in Northern Ireland

Educational Statistics, Volume 8 contains figures for 1967/68 dealing with finance, school leavers, examinations and further education.

Reference

Education Statistics, Volume 8, (HMSO), October 1969 (Price 17s. 6d.)

New contributions to economic statistics

The Central Statistical Office has recently published the Fifth Series of *New Contributions to Economic Statistics* which brings together in one volume the major articles published in *Economic Trends* from May 1967 to May 1969 (for full details see inside back cover).

Greater London Council

The 1968 *Annual Abstract of Greater London Statistics*, produced by the Research and Intelligence Unit of the Greater London Council and published in December 1969, contains statistics covering a wide field from franchise to finance. It includes chapters on population and vital statistics, trade, industry and labour, transport and communications, social services, education, town planning and housing, environmental and protective services, and cultural and amenity services.

The *Quarterly Bulletin* No. 7 (June 1969) of the G.L.C. Research and Intelligence Unit includes the following articles: 'Regional employment: the part played by public authorities in determining its level' by S. Z. Walters, Research and Intelligence Unit; 'Migration in Britain: an appraisal of research findings' by Ruth L. Welch, University of Birmingham; 'Survey of physically handicapped school leavers' by Patricia White, Youth Employment Service, and Monica Myers, Research and Intelligence Unit; 'Some aspects of processing Census data' by Eric J. Thompson, Research and Intelligence Unit. The *Quarterly Bulletin* No. 8 (September 1969) includes 'The influence of public authorities on regional employment: a reply to S. Z. Walters' by F. M. Little and W. S. Grigson, Research and Intelligence Unit; 'The growth of Greater London' and 'Aspects of some recent official population projections' by Eric J. Thompson, Research and Intelligence Unit.

References

Annual Abstract of Greater London Statistics, Vol. 3, 1968, available from the Information Centre, County Hall, London, S.E.1, or HMSO, 49 High Holborn, London, W.C.1, price £3 plus postage (3s. 6d. London postal area, 4s. 6d. elsewhere)

G.L.C. Research and Intelligence Unit *Quarterly Bulletins* No. 7 (June 1969) and No. 8 (September 1969), obtainable from the Information Centre, The County Hall, London, S.E.1, (Price 5s. 0d. net, postage 1s. 3d.)

Government statistics for industry

The Central Statistical Office has prepared a booklet *Government Statistics for Industry* which sets out broadly the type of business and economic information available from the Government Statistical Service, the main published sources, and the numbers to telephone for further details.

The booklet is obtainable free from the CSO Press and Information Service, Great George Street, London, S.W.1, telephone 01-930 5422 ext. 602.

GOVERNMENT STATISTICAL SERVICE

Office of Population Censuses and Surveys

In written answer to a Parliamentary Question as to what action he was taking to improve Government organisation in the field of social statistics, the Prime Minister said:

'As a further stage in improving the Government's statistical services, the General Register Office for England and Wales and the Government Social Survey Department are to be merged into a new Office of Population Censuses and Surveys.

The new office will be closely linked with the Central Statistical Office, and the Director of the Central Statistical Office and the head of the new office will together, under the general direction of Ministers, guide the direction and programming of its survey, censuses and statistical work: close links will be maintained between the new office and the General Register Office for Scotland.

The Central Statistical Office, which of course reports to me, will thus be closely concerned with the general policy of the new office, but day-to-day Ministerial responsibility will be exercised by my right hon. Friend the Secretary of State for Social Services. He will retain his existing responsibilities for the General Register Office and his Department will be a major contributor to the work of the new office. Social surveys will continue to be undertaken by the new office for other Government Departments and new arrangements do not affect the responsibility of individual Ministers for matters of Departmental policy arising on such surveys.

I will make a further statement about the date when these arrangements come into operation.'

Reference
Hansard, 18 December 1969, Cols. 410 and 411.

Transfer of statistical responsibilities

From Board of Trade to Ministry of Technology

Statistics on stocks and capital expenditure of manufacturing industry; manufacturing industry investment intentions inquiry; investment grants statistics and estimates; census of Production for 1964 to 1967 and 1969; statistics on industrial development certificates; production and related statistics for the following manufacturing industries:

- China clay (M.L.H. 103, part)
- Salt (M.L.H. 109/3)
- Tobacco (M.L.H. 240)
- Chemicals and allied industries (M.L.H. 271–279)
- Non-ferrous metals (M.L.H. 321–323)
- Cutlery (M.L.H. 392)
- Jewellery (M.L.H. 396)
- Miscellaneous metal goods industries (M.L.H. 399)
- Textiles (M.L.H. 411–429)
- Leather, leather goods and fur (M.L.H. 431–433)
- Clothing and footwear (M.L.H. 441–450)
- Bricks, pottery, glass, cement, etc. (M.L.H. 461–469)
- Timber, furniture, etc. (M.L.H. 471–479)
- Paper and paper manufactures (M.L.H. 481–484)
- Rubber, linoleum, brushes, toys, stationers' goods, plastics products and miscellaneous manufactures (M.L.H. 491–499)

From Board of Trade to Ministry of Housing and Local Government

Statistics on office development permits.

Liaison with industry

Infofair

The Government Statistical Service figured prominently in the Infofair conference and exhibition held at Imperial College, London in December. One of the principal speakers at the conference was Professor Moser; and the Government Statistical Service, for the first time ever, had an exhibition stand to advertise its wares to the public.

This event, sponsored jointly by the Ministry of Technology and the Thomson Organisation, was the first of its kind in the world. It is unlikely to be the last. The conference was oversubscribed – 590 delegates were finally accepted; and it is estimated that some 2,500 people in all visited the exhibition which was held in an adjacent hall.

The GSS had part of a larger stand as the guests of Mintech who had taken it to display various government information services. It was manned by representatives of both the Central Statistical Office and the Business Statistics Office who were occupied with visitors almost continuously from 9.30 a.m. to 6.00 p.m. over three days. And nearly all of the literature on display was taken.

Professor Moser spoke on information from and to the Government. In a wide-ranging talk he described the work already done and being planned to improve the supply of statistical information to users – most of which is well-known to regular readers of this journal. He touched on the problems of confidentiality and of determining priorities with limited resources.

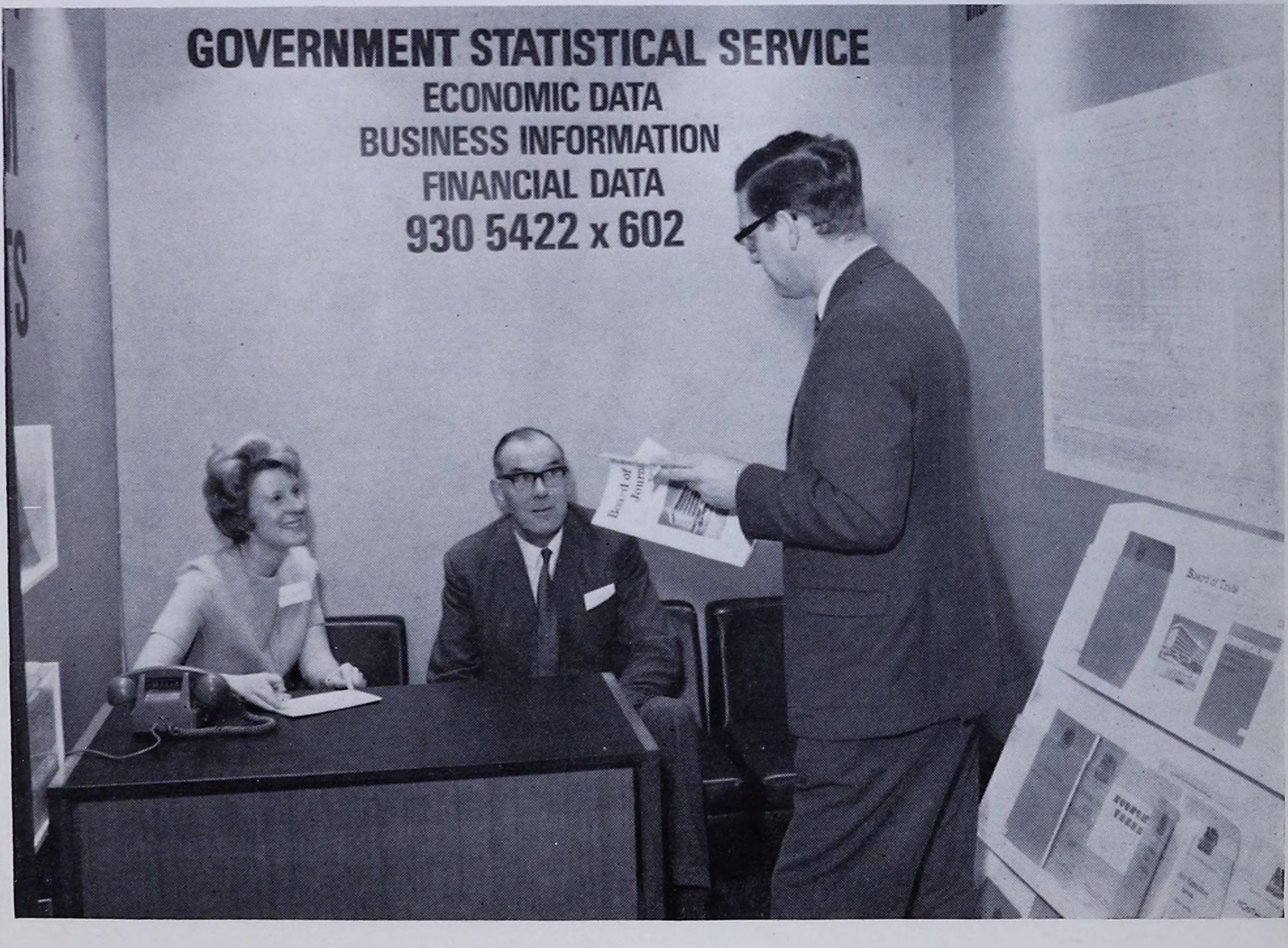
Dealing with the second part of his subject – information to the Government – Professor Moser discussed the difficulties of persuading firms to send in returns promptly and the various ways in which the Service is trying to minimise the burden of form filling. In this context, he drew the attention of delegates to another form handed out to them before the session. This invited them to list any complaints they had about forms which their firms had to complete and guaranteed that every specific complaint received would be followed up by the CSO Survey Control Unit.

Photographs on facing page

Above: Professor C. A. Moser, Director of the Central Statistical Office and Head of the Government Statistical Service addresses delegates to the Management Decision through Information Conference.

Below: Shirley Carter of the CSO and R. F. L. Sims of the Business Statistics Office welcome a visitor to the Government Statistical Service stand at the Infofair exhibition.

(Photographs: Apex)


GOVERNMENT STATISTICAL SERVICE
ECONOMIC DATA
BUSINESS INFORMATION
FINANCIAL DATA
930 5422 x 602

Appointments

CENTRAL STATISTICAL OFFICE

Professor C. A. Moser, who was appointed Director of the Central Statistical Office for three years from 1st April 1967, has accepted reappointment for a further period. He will remain as Director of the CSO and Head of the Government Statistical Service until September 1972. During this time he will be Visiting Professor of Social Statistics at the London School of Economics.

H.M. TREASURY

Mr. O. Nankivell has been appointed Deputy Director (Statistics) at Under-Secretary level in the Economic Forecasting organisation of the Treasury.

MINISTRY OF TECHNOLOGY

Mr. F. J. Atkinson, formerly a Deputy Director of the Economic Section, Treasury, has been appointed to a Deputy-Secretary level post as Controller of Economics and Statistics in the Ministry of Technology.

MINISTRY OF HOUSING AND LOCAL GOVERNMENT

Mr. I. C. R. Byatt has been appointed Director of Economics and Statistics. Mr. Byatt was formerly a Senior Economic Adviser in the Department of Education and Science.

BUSINESS STATISTICS OFFICE

Dr. B. Mitchell, Statistician, Board of Trade, has been promoted to fill the new Chief Statistician post at the Business Statistics Office.

CIVIL SERVICE COLLEGE

On his retirement in April 1970 from the post of Director of the Research and Intelligence Unit of the Greater London Council, *Dr. B. Benjamin* will become Director of Studies in Statistics at the Civil Service College. Dr. Benjamin was formerly a Chief Statistician at the General Register Office and the Ministry of Health.

LATE ITEMS

Education

Universities

Statistics of Education 1967, Volume 6, Universities (£2 2s. 6d.) was published in October 1969. This is the second publication of statistics for universities in the United Kingdom in the Statistics of Education series. It was prepared by the University Grants Committee in co-operation with the Department of Education and Science.

Finance and awards

The topics of educational finance and awards to students were covered in *Statistics of Education 1968, Volume 5* (18s. 0d.) published in January 1970; this refers to England and Wales. Analyses of public expenditure on education are given for 1967–68 with comparative figures for earlier years. The tables on awards show that, in 1968, 21·4 per cent of a single age group (the average of the 18-year and 19-year groups is taken for this purpose) took up new awards by local education authorities to attend universities or further education establishments, or entered initial teacher training courses in colleges of education; the comparable figure for 1963 was 13·2 per cent.

A table is included showing the results achieved by students whose full value awards from local education authorities terminated in 1968. The number of premature terminations of awards at universities represented 3·0 per cent of university awards current at the beginning of the year; the comparable figure for awards at further education establishments was 8·4 per cent. Amongst those who sat their final examinations, 97·5 per cent were successful and 2·5 per cent failed in the case of university award holders, and 88·9 per cent were successful and 11·1 per cent failed in the case of those holding awards at further education establishments.

UCCA Statistical Supplement

The Statistical Supplement to the Sixth Report of the Universities Central Council on Admissions (15s. 0d.) was published by UCCA in October 1969. It was devoted to four topics: an analysis of the parental occupation of home candidates accepted for admission to UK universities in October 1968; an analysis of the proportion of applicants who were interviewed as part of the admission procedure; a survey of candidates for university admission who at an early date had been unsuccessful in all their applications for entry in October 1969; and a report on the first degree achievements of candidates admitted to universities through UCCA in October 1963. The last of these topics was a continuation of the analysis contained in the *Statistical Supplement to the Fourth Report*, and gave the examination achievements of students whose first degree courses had not been completed at the time the earlier report was prepared.

The analysis of the parental occupation of home candidates accepted for university admission in October 1968 shows a marked tendency for sons and daughters to be accepted for studies in the subject group related to the profession of the parent. Thus 32 per cent of those with parents classified as medical practitioners were accepted for a subject in the medicine, dentistry and health subject group, as compared with an average of 7 per cent in respect of all parental occupational groups. The same tendency to follow the parent's profession, or a related profession, is shown by sons and daughters of dentists, pharmacists, engineers, farmers, scientists, accountants, lawyers, social workers, architects and the clergy.

The following table gives the distribution of parental occupation between four broad occupation groups and compares this with the corresponding distribution of economically active males aged 45–59 in Great Britain; the latter, taken from the 1966 census of population, may be regarded as an approximation to the occupational distribution of the parents of the cohort of young people from whom the 1968 university entrants were drawn.

Percentages

	Occupation of accepted home candidates' parents	*Economically active males aged 45 to 59 in Great Britain*
Administrators and managers	14	6
Professional, technical, etc.	30	8
Other non-manual	28	22
Manual and agricultural	28	64
Total	100	100

The UCCA *Statistical Supplement* interprets this evidence to mean that proportionately many more of the accepted home candidates had parents in managerial and professional occupations than in manual occupations, a finding which is in line with the evidence on this topic given in the *Robbins Report*.

Future numbers in higher education

New projections of school leavers with GCE qualifications in England and Wales have been made following the revised projections of school population published in *Statistics of Education 1968, Volume 1* (*Statistical News*, 6.21). The new estimate of school leavers with two or more 'A' level passes in 1981 is in the case of boys over 25 per cent higher, and in the case of girls over 50 per cent higher, than the most recently published estimate.

The consequences of the new projections of school leavers on future numbers in higher education have been examined. If numbers in higher education are calculated on the Robbins basis of relating higher education entry to numbers of qualified school leavers and other potential entrants, numbers of full-time students (undergraduate and postgraduate) in higher education as a whole in England and Wales would be as in the table below. The Robbins figures are given for comparison.

Students in full-time higher education, England and Wales

Thousands

	Latest estimates	*Robbins*
1962–63	185 (actual)	188 (recommendation)
1967–68	331 (actual)	281 (recommendation)
1971–72 projection	437	305
1976–77 projection	557	388
1981–82 projection	727	510

If the figures for the colleges of education, the size of whose entry is determined mainly by teacher supply considerations, are subtracted from the total figures, the remaining figure, in respect of students in universities and advanced courses in further education establishments, is of the order of 433,000 in 1976–77 and 597,000 in 1981–82. If in 1981 the universities were to take about 53 per cent of all school leavers with 2 or more 'A' levels, which was the proportion in 1963, and if allowance is made for entrants otherwise than from school and for numbers in Scottish universities, the number of university students in *Great Britain* in 1981–82 would be over 450,000.

The policy implications of such a growth pattern are now the subject of discussion between the Department of Education and Science and interested educational bodies.

Individualised data systems

The report of a Working Group on Further Education Student Statistics has been issued to all local education authorities and further education establishments in England and Wales. It recommends that an individualised data (ID) system is feasible and should be introduced. (An outline of the ID system and earlier references appeared in *Statistical News*, 1.19 and 4.28.) A questionnaire accompanying the report asks colleges to give their comments on the timing, costs and problems of implementing an ID system in the further education sector. Some 14 volunteer institutions of further education undertook a special pilot exercise in autumn 1969 in the use of individualised data to test out the methods and identify practical problems.

Alphabetical Index

The index to *Statistical News* is cumulative. Page numbers are prefixed by the issue number e.g. 1.23 signifies issue number 1, page 23.

Generally speaking articles relating to United Kingdom, Great Britain, England and Wales or covering several geographical groups will not be indexed under these groups, but topics with a significant regional interest will be indicated e.g. regional earnings. Articles and notes dealing particularly with Scottish statistics will be 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: articles appearing in *Statistical News* are indicated by capital letters when shown under the author's name, and by (A) elsewhere; italics are used for the titles of published books or papers.

Printed in England for Her Majesty's Stationery Office by J. Looker Ltd., 82 High Street, Poole, Dorset. Dd 152252 K37 2/70

Published by
HER MAJESTY'S STATIONERY OFFICE

To be purchased from
49 High Holborn, London W.C.1
13A Castle Street, Edinburgh EH2 3AR
109 St. Mary Street, Cardiff CF1 1JW
Brazennose Street, Manchester M60 8AS
50 Fairfax Street, Bristol BS1 3DE
258 Broad Street, Birmingham 1
7 Linenhall Street, Belfast BT2 8AY
or through any bookseller

Price 6s. 0d. [30p] net
Annual subscription £1 6s. 0d. [£1·30]

SBN 11 720007 7