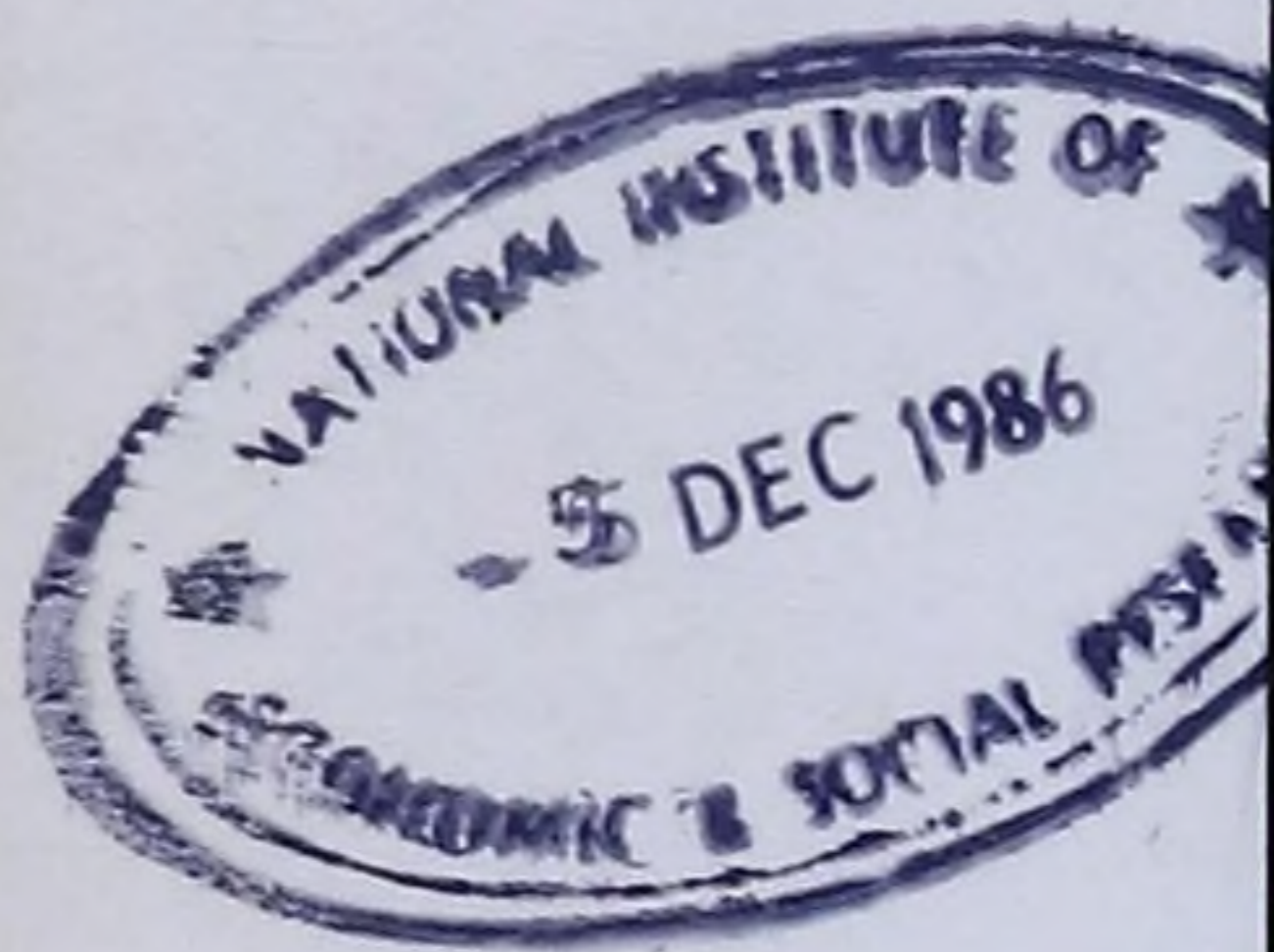


CENTRAL STATISTICAL OFFICE

CSO

Statistical News



IN THIS ISSUE

Department of Trade and Industry
BBC Domesday Project
Input-Output
Household Projections
NHS Performance Indicators
ESRC Archive

No. **75**
November 1986
HMSO Quarterly
Savage/UB



A publication of the Government Statistical Service

© *Crown copyright 1986*
First published 1986

Brief extracts from this publication may be reproduced provided the source is fully acknowledged. Proposals for reproduction of larger extracts should be addressed to Copyright Section, Her Majesty's Stationery Office, St. Crispins, Duke Street, Norwich, NR3 1PD

ISBN 0 11 620243 2
ISSN 0017-3630



Government Statistical Service

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 glad to receive comments from readers on the adequacy of its scope, coverage or treatment of topics and their suggestions for improvement.

Enquiries about individual items in this issue should be made to the appropriate sources where indicated; otherwise they should be addressed to the Editor of *Statistical News* at Central Statistical Office, Great George Street, London SW1P 3AQ:
Telephone: 01-233 7455/7497

Enquiries about orders and subscriptions for *Statistical News* and other Central Statistical Office publications should be made to:

Her Majesty's Stationery Office, PO Box 276, London SW8 5DT
(Telephone: 01-211 8667 for subscriptions; 01-622 3316 for orders.)

FRONT COVER

The cover design depicts a corner of the Government Offices in Great George Street which house the CSO. The entrance to the historic Cabinet War Rooms, which are now open to the public, can be seen at the bottom of the picture. The design is from a pen and ink drawing by Mr Harry Foster, a Security Guard at the Office.

Statistical News

**Developments in British
Official Statistics**

**No. 75
November 1986**

The headquarters divisions of the Department of Trade and Industry by Neil Harvey and Peter Stibbard	<i>Page</i> 75.4
The eleventh in the series on the structure and functions of the Government Statistical Service	
The BBC Domesday Project by Howard Newby	75.16
An article on the background and development of this project	
Input-output: Eighth International Conference, and proposals for the 1984 United Kingdom Tables by Robin Lynch	75.18
A report on the recent international conference in Japan	
Department of the Environment (DOE) Household Projections by Shekhar Nandy	75.20
A description of the basis of the method of household projections developed by the Department	
Performance Indicators for the National Health Service by Antonia Roberts	75.23
A statistical development to enhance management decision making	
The Economic and Social Research Council (ESRC) Archive — The Practice of Data Ecology by Eric Tanenbaum	75.27
The history and development of the ESRC archive	

REGULAR FEATURES

New Surveys notified to the Survey Control Unit	<i>Page</i> 75.32
Recently available statistical series and publications	75.34

NOTES ON CURRENT DEVELOPMENTS

Population and vital statistics	<i>Page</i>
<i>Population Trends</i>	75.37
Birth statistics	75.37
Infant and childhood mortality statistics	75.37
English Life Tables No. 14, 1980-82	75.38

	<i>Page</i>		<i>Page</i>
Population and vital statistics (cont)			
Registrar General Scotland: annual report	75.38	Provisional results of 1985 Survey of International Road Haulage	75.46
Vital Statistics (Scotland)	75.38	Nationality of Vessels in United Kingdom	
Registrar General Northern Ireland: annual report	75.38	Seaborne Trade 1983-1985	75.46
		<i>Port Statistics 1985</i>	75.46
Social statistics		<i>Waterborne Freight in the United Kingdom 1985</i>	75.47
Family Expenditure Survey (FES) 1985	75.39	Purchases and sales of ships by the UK shipping industry: 1985	75.47
DHSS low income families tables 1983	75.39		
Occupational pension scheme 1983	75.39	Home finance	
Regional Trends 21: amendments	75.39	1985 Statistics Users' Conference on Financial Statistics: Follow-Up Work	75.47
Homicide in Scotland 1980-1984	75.39	<i>Inland Revenue Statistics 1986</i>	75.48
Scottish household projections — 1983-based	75.39	Calendar month money and banking statistics	75.49
Health		Overseas finance	
Hospital In-patient Enquiry	75.40	<i>British Aid Statistics 1981/1985</i>	75.49
Schizophrenia	75.40	Overseas transactions by film and television companies	75.49
NHS Hospital Activity Statistics	75.40	Overseas earnings	75.50
National and Regional Summaries for 1985	75.40		
		International	
Education and the Arts		International publications	75.50
Department of Education and Science statistical services	75.40		
Pre-Service Teacher Training	75.41	Publications	
School Leavers	75.41	<i>Plain Figures</i>	75.51
<i>Facts about the Arts 2</i>	75.41	Treasury working papers	75.51
		<i>Bank of England Quarterly Bulletin</i>	75.51
Manpower and Earnings		<i>National Institute Economic Review</i>	75.52
The labour force in 1985	75.41	Economic and Social Research Council (ESRC) Newsletter 58	75.53
Industrial stoppages in 1985	75.41		
Young people leaving school	75.41	Conferences and meetings	
Workforce	75.42	Royal Statistical Society: GSS Study Group	75.53
Electrical engineering industry since 1978	75.42	Statistics workshop	75.53
Careers of young women technicians	75.42		
Armed Forces Pay (Service medical and dental officers)	75.42	Government Statistical Service	
		Reviews of regular surveys	75.53
Agriculture and food		Appointments and changes	75.54
Output and utilisation of farm produce in the United Kingdom (1979-1985)	75.42		
Agricultural censuses and surveys	75.43	ALPHABETICAL INDEX	75.56
Provisional results of the Scottish June agricultural census for 1986	75.43		
Industrial statistics			
Business Monitors - annual census of production 1984	75.43		
Annual census of production 1983	75.44		
Annual census of production 1984	75.44		
Housing and construction statistics	75.44		
Stockbuilding: recent trends	75.44		
UK registrations and deregistrations for VAT 1980-1985	75.45		
Electrical engineering	75.45		
Transport			
<i>Transport Statistics Great Britain 1975-1985</i>	75.45		
Road accidents	75.45		
Revised series on heavy goods vehicle numbers and activity	75.45		



Left to right: Bill Boyd, Graham Jenkinson, Peter Stibbard and Peter Richardson of S2 Division



Left to right: John Astin, John Walker, Neil Harvey and Richard Butchart of S1 Division

The headquarters divisions of the Department of Trade and Industry

Neil Harvey and Peter Stibbard, respectively Heads of Statistics Divisions 1 and 2,
Department of Trade and Industry (DTI)

The previous issue of *Statistical News* included an article by Fiona Deuchars about the historical development of statistics in the Department of Trade and Industry, to mark the bicentenary of the Board of Trade¹. This article describes the current work of the Department.

The published aim of the Department of Trade and Industry is 'to encourage, assist, and ensure the proper regulation of, British trade, industry and commerce; to increase the growth of world trade and the national production of wealth'. More specific aims, under the general headings of 'climate', 'international competitiveness' and 'innovation' are shown in Figure 1.

These extensive interests are reflected in the wide range of statistics which are collected, processed and published by the Department's statistical divisions. These support the aims and objectives of the Department and, just as important, supply the material required — mainly by HM Treasury — for monitoring the health of British industry and commerce and used as a basis for forecasting economic and financial developments. This generally takes the form of providing the Central Statistical Office (CSO) with statistics covering the economic activity of those areas of industry and commerce with which the Department is closely concerned. These are vital contributions to indicators such as the index of industrial production and to components of the national accounts eg the output measure of gross domestic product, input/output tables, the balance of payments accounts, the flow of funds accounts and national and sector balance sheets. Overall, the Department is the major provider of material used for British macro-economic statistics.

Previous articles in this series have demonstrated how important is an appreciation of the history of a department towards understanding its present functions and structure. Besides the article in the previous issue of *Statistical News* mentioned above, the Department has issued other publications in this bicentenary year describing its history^{2,3}. None of this material need be repeated here except, for general interest, to draw attention to the Annex, which reproduces the original 1832 proposal to set up a statistical 'branch' in the Board of Trade. This in effect, was the forerunner of the Government Statistical Service. An annual cost of £1500 was envisaged; the present cost of the Government Statistical Service is around £120 million — a large amount which nevertheless is less than one thousandth of public expenditure.

Present organisation of statistical work

There are three statistical divisions in the Department. They employ nearly all the DTI's professional statisticians, but a few work in other divisions or in bodies associated with the department. The Grade 2 Director of Statistics post was abolished in 1983 and all three divisions now report to the Department's Chief Economic Adviser. By far the largest is the Business Statistics Office (BSO), located in Newport. This article is however restricted to the activities of the two London-based or 'headquarters' divisions — **Statistics 1 (S1)** and **Statistics 2 (S2)**; the BSO was featured earlier in this series⁴. S1 employs about 75 people and is mainly concerned with statistics of the various sectors of manufacturing industry. S2 consists of just over 100 people and covers a mixture of subjects — international visible trade and other overseas transactions, company finance, expenditure on research and development, and statistics of certain financial institutions. Figure 2 shows abbreviated organisation charts for the two divisions. The following paragraphs describe in more detail the main statistical work of the two divisions.

S1 DIVISION

Statistics of Manufacturing Industries

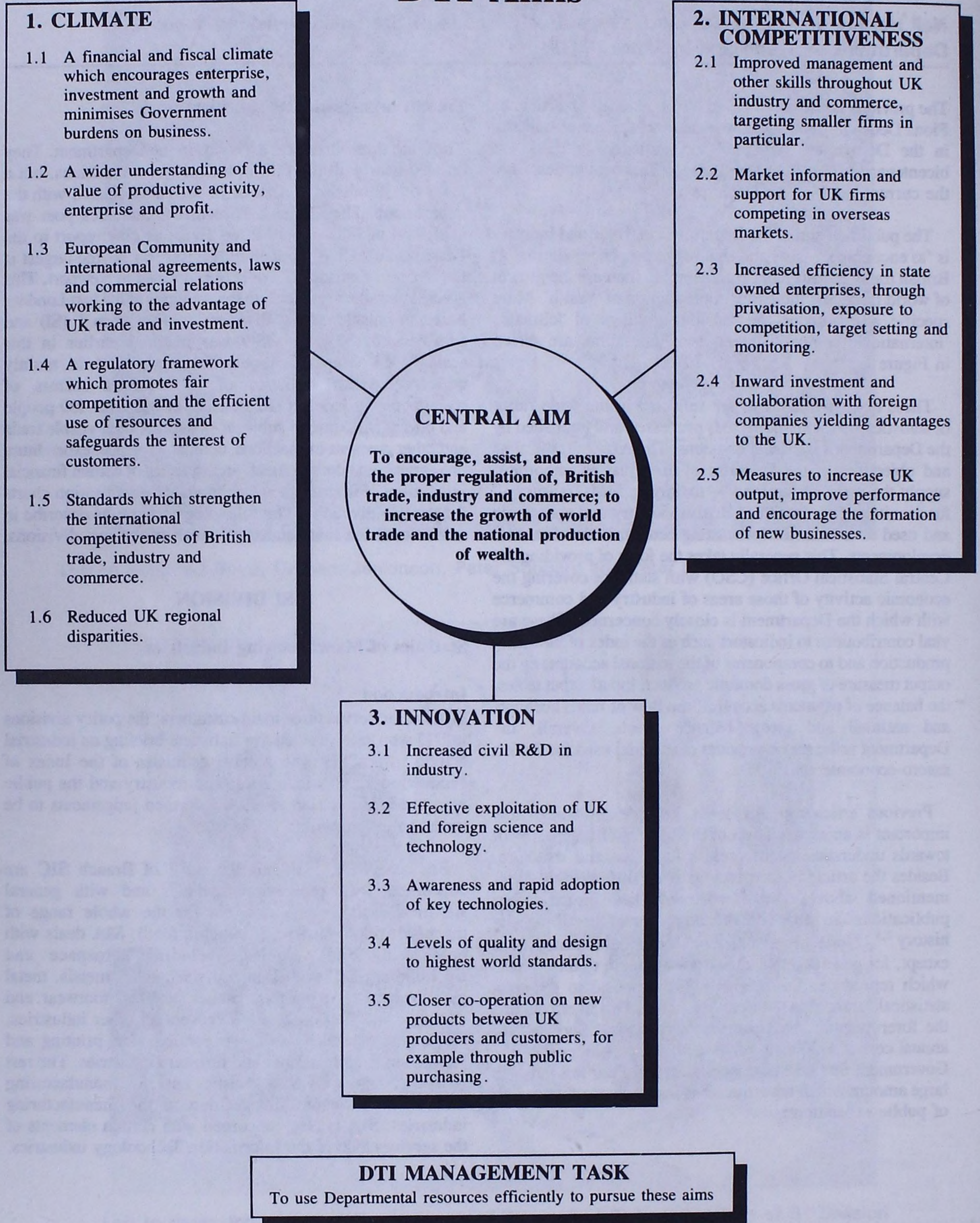
Introduction

S1 Division serves three main customers: the policy divisions in DTI who receive extensive statistical briefing on industrial activity; the CSO who receive estimates of the Index of Production for S1's industries; and industry and the public who need information to allow informed judgements to be made on developments in industry.

Branches **S1A**, **S1B** and section 2 of Branch **S1C** are concerned with production statistics and with general statistical briefing and analysis for the whole range of manufacturing industries (excluding food). **S1A** deals with engineering and vehicles, including aerospace and shipbuilding; **S1B** with iron and steel, other metals, metal goods, chemicals, plastics, rubber, textiles, footwear and clothing; and Section 2 of **S1C** covers all other industries, the largest of which are the paper industry, printing and publishing, and the timber and furniture industries. The rest of **S1C** is concerned with statistics covering manufacturing industry as a whole. In addition to the manufacturing industries, **S1A** is also concerned with certain elements of the services side of the Information Technology industries.

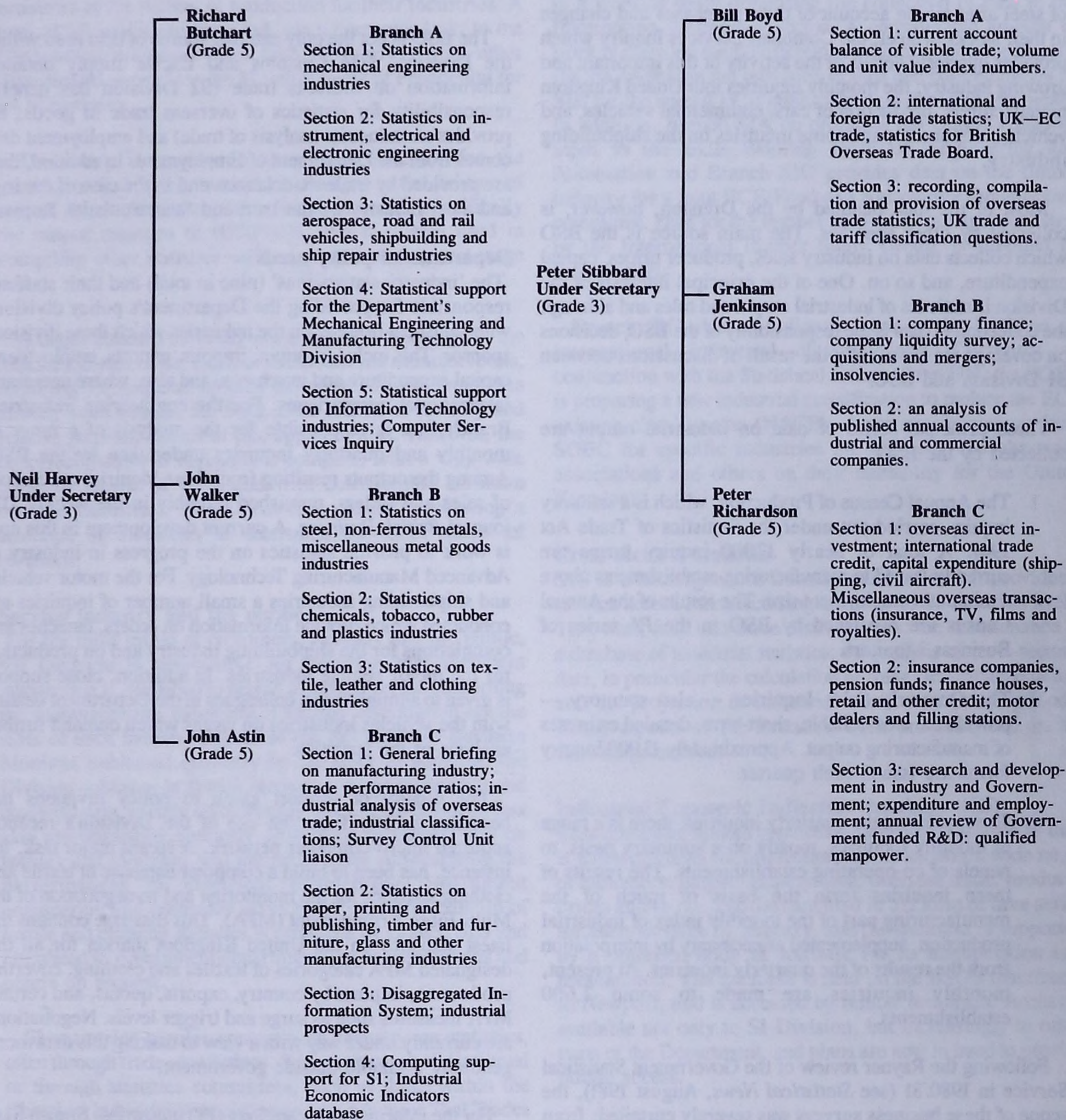
Figure 1

DTI Aims



S1 ORGANISATION CHART

S2 ORGANISATION CHART



Sources of data

The Division collects data directly in a number of areas. These include the quarterly inquiry into steel stocks and consumption which provides estimates of steel users' final consumption of steel after taking account of their purchases and changes in their stocks of steel; the Computer Services Inquiry which provides quarterly details of the activity of this important and growing industry; the monthly inquiries into United Kingdom manufacturers' production of cars, commercial vehicles, and vehicle components; and some inquiries on the shipbuilding industry.

Most of the data handled by the Division, however, is collected by other agencies. The main source is the BSO which collects data on industry sales, producer prices, capital expenditure, and so on. One of the principal interests of the Division is statistics of industrial output and sales and although the collection of data is the responsibility of the BSO, decisions on coverage etc are usually the result of discussions between S1 Division and BSO.

Three principal series of data on industrial output are collected by the BSO:

1. The Annual Census of Production, which is a statutory inquiry carried out under the Statistics of Trade Act 1947. A total of nearly 17,000 inquiry forms are currently issued to manufacturing establishments above a minimum employment size. The results of the Annual Census are published by BSO in the *PA* series of Business Monitors.
2. The Quarterly Sales Inquiries — also statutory — provide the most reliable, short-term, detailed estimates of manufacturing output. Approximately 13,000 inquiry forms are issued each quarter.
3. To supplement the quarterly inquiries, there is a range of monthly inquiries, mostly on a voluntary basis, to panels of co-operating establishments. The results of these inquiries form the basis of much of the manufacturing part of the monthly index of industrial production, supplemented as necessary by interpolation from the results of the quarterly inquiries. At present, monthly inquiries are made to some 2,600 establishments.

Following the Rayner review of the Government Statistical Service in 1980/81 (see *Statistical News*, August 1981), the scope of these business surveys was severely curtailed: from approximately 180,000 forms issued by the BSO in 1980 the total has now fallen to about 100,000. An important part of the work of S1 Division is to maintain a balance between collecting data of sufficient quality to monitor an industry effectively whilst at the same time ensuring that the burden of form-filling on firms is kept to a minimum. For the Quarterly Sales Inquiries a system of rolling reviews aims to examine each inquiry once every five years to check that it is providing proper value for money and that it is being conducted in the most efficient way. S1 statisticians are at the centre of these reviews — discussing policy requirements

with colleagues elsewhere in the Department and at the CSO, obtaining the views of businesses themselves, usually via the trade associations, and weighing-up the practical problems with colleagues at the BSO.

The BSO is not the only external source of data used within the Division. HM Customs and Excise supply detailed information on overseas trade (S2 Division has general responsibility for statistics of overseas trade in goods; S1 provides an industrial analysis of trade) and employment data comes from the Department of Employment. In addition, data are provided by trade associations and in the case of the iron and steel industry by the Iron and Steel Statistics Bureau.

Departmental policy needs

The 'industry statisticians' (nine in total) and their staff are responsible for providing the Department's policy divisions with statistical briefing on the industries which these divisions sponsor. This includes output, imports, exports, employment, capital expenditure and purchases, and also, where necessary, international comparisons. For the engineering industries, Branch S1A is responsible for the analysis of a range of monthly and quarterly inquiries undertaken by the BSO. Among the outputs resulting from these inquiries are indices of sales and orders, published monthly in the weekly DTI journal *British Business*. A current development in this area is work to provide statistics on the progress in industry of Advanced Manufacturing Technology. For the motor vehicles and shipbuilding industries a small number of inquiries are conducted which provide information on orders, launches and completions for the shipbuilding industry and on production for the motor vehicle industries. In addition, close support is given to administrative colleagues in the Department dealing with the vehicles industries on issues which demand further analysis of the statistics.

The quality of support given to policy divisions has benefited greatly from the use of the Division's recently acquired micro-computer network. A recent major task, for instance, has been to build a computer database of textile and clothing statistics for the monitoring and re-negotiation of the Multi-Fibre Arrangement (MFA). This database contains the latest statistics on the United Kingdom market for all the designated MFA categories of textiles and clothing, covering production, imports by country, exports, quotas, and certain MFA measures such as surge and trigger levels. Negotiations are currently under way with a view to making this data more generally available outside government.

For the information technology (IT) industries, Branch S1A has played a substantial role in developing and refining the concept of what constitutes the information technology industry and organising the supply of statistics. On the service sector side of IT, in addition to the quarterly inquiry conducted into the computer services industry, plans are in hand to organise the collection of data for other IT service industries and on the spread of IT throughout industry. Although the main focus of this effort is the support of DTI's policy needs, a subsidiary benefit will be a strengthening of the branch's contribution to the national accounts.

Macroeconomic policy needs — Monthly Index of Industrial Production (IOP)

Each month the industry sections of the Division produce estimates of the indices of production for their industries. A total of 171 series are provided, via a computer link, to the CSO which combines them with information from other departments to produce the Monthly Index of Production for all Industries.

The Index is used as a short-term indicator for the production industries, measuring changes in the volume of output. It contributes to the national accounts, specifically the output measure of (GDP(O)), and it is also used in compiling other statistics such as manufacturing unit wage costs.

A major concern currently is the apparent tendency for the initial estimates of the index to understate the eventual levels, requiring subsequent upward revisions. Much work has already been done in the BSO, CSO and S1 to identify and remove possible causes of this apparent bias. However, the historical pattern of revisions is complex, with a very wide range of factors at work and with considerable variation between industries. The Division is closely monitoring a selection of industries to determine the exact causes of revisions.

Serving industry and the public

For the third group of customers, industry and the public, the Division is responsible for ensuring that sufficient information is published to permit informed debate concerning the manufacturing industries. Detailed information on the sales of each industry appear in the *PQ* series of Business Monitors published quarterly by the BSO. In addition, the Division publishes in *British Business* a range of monthly and quarterly data, mainly on industries' sales. In *British Business* also are published quarterly articles on chemicals and on textiles and clothing, and annual articles summarising the performances of electrical engineering, instrument engineering and computer services. A quarterly bulletin of textile and clothing statistics is produced by Branch S1B and circulated to government departments, trade associations and others on request.

S1 maintains regular contact with industry on statistics, often through trade associations. Such contact may be informal or through statistics committees, such as those within the Chemical Industries Association and the Machine Tool Trades Association.

An important part of the work of the Division is to provide answers to parliamentary questions. These range over the entire work of S1, from requests for detailed statistics of an industry's sales, to wider questions on manufacturing as a whole.

The Division also provides industrial data to various international bodies and participates in their meetings. Regular returns of industrial production are supplied to the Statistical

Office of the European Community (SOEC) and the Organisation for Economic Co-operation and Development (OECD). For the latter organisation, Branch S1A is active in a working party organising the collection of data in the Information Technology sector. A considerable amount of work is done for the UN Economic Commission for Europe (ECE), including the provision of data and commentaries by S1B for the annual ECE publications on steel and chemicals. In addition, Branch S1A co-ordinates the United Kingdom input to the ECE Working Party on Engineering and Automation and Branch S1C provides data on the timber industry for a joint ECE/Food and Agriculture Organisation committee. Data for the Rubber Statistical Bulletin, published by the International Rubber Study Group, is supplied by Branch S1B.

Branch S1C also co-ordinates work in the Division on international industrial classifications. Currently, in conjunction with the Statistical Office of the UN, the SOEC is preparing a new industrial classification to replace the EC's existing classification (NACE). As proposals emerge from SOEC for specific industries the Division consults trade associations and others on their suitability for the United Kingdom.

Cross-sectoral statistics

S1C is a heterogeneous branch, much of which provides a service across manufacturing industry to S1 Division itself. This work falls into three distinct areas: the maintenance of a database of industrial statistics; the analysis of cross-sectoral data, in particular the calculation of trade performance ratios; and the projection of industrial trends into future periods. These aspects of the Branch's work are described in the following sections.

Industrial Economic Indicators database (IEI)

This computer system provides a convenient source of data at a detailed level for production industries over a wide range of indicators: output, employment, overseas trade, producer prices and so on. The data are held in the form of time series for each variable by industry, and the database is supported by a powerful body of software for its manipulation and presentation. The database is held on the BSO's mainframe in Newport, and is accessed by remote terminals. Access is available not only to S1 Division, but increasingly to other parts of the Department, and plans are now in hand to provide public access.

Trade performance ratios

In this work industrial output statistics and trade statistics are brought together. Trade performance ratios provide a means of measuring the United Kingdom's changing international competitiveness. Four ratios, the best known of which is the import penetration ratio, are computed for around 200 industries and the results are published quarterly in Business Monitor *MQ12*. Part of the work of compiling these ratios consists of analysing overseas trade data in terms of industries rather than commodities, and the results of this work are also published quarterly, in Business Monitor *MQ10*. Summaries of both monitors regularly appear in *British Business*.

Industrial forecasting

As part of its service to Departmental policymakers, the Branch maintains and is developing a disaggregated industrial forecasting model, known as the Disaggregated Information System (DIS). Using intra-industry relationships derived from the CSO's quinquennial input-output tables, adjusted where possible for changing trends, the model takes Treasury forecasts of macro-economic variables (consumers' expenditure, investment, etc) and in conjunction with the industry statisticians in the Division works out the medium-term implications of such forecasts at a detailed industrial level. Since some of the Treasury projections used by the DIS model are not published, neither are the results of the DIS projections, but current work is being directed at the possibility of using assumptions which would allow a variety of simulation exercises to be carried out, perhaps for a wider range of customers.

Other work in S1

Computer Unit

Branch S1C looks after a variety of other work either in support of S1 Division or on its behalf. Chief among this work is the provision of a divisional computing service. The last two years have seen a big change in the computing facilities available to the Division, with the introduction of a local area network of powerful microcomputers. Each section in the

Division now has at least one networked micro, allowing much of the analytical work previously done manually to be automated. The network provides access to a variety of packaged software although each section is free to write its own routines or to call on the services of the Computing Unit to do so. The system enables users to communicate directly with mainframes at BSO and CSO, and with each other. In addition, the personal secretaries in the Division now use the word processing facilities of the network for virtually all their work. The Computing Unit also provides a service for other divisions in DTI. The database for monitoring the Multi-Fibre Arrangement has already been mentioned; another recent development has been the processing of applications for the Queen's Award for Export Achievement.

Survey Control

S1C is also responsible for the general oversight of Departmental surveys which requires liaison with the CSO's Survey Control Unit. Covering such a large variety of industrial activities, the Department's use of *ad hoc* surveys is considerable, and the aim is to find the right balance between, on the one hand obtaining information necessary for the formulation and monitoring of policy and, on the other, ensuring that businesses, especially small ones, are not overburdened with forms.

S2 DIVISION

Analysis and interpretation of United Kingdom trade statistics

Section S2A1 converts the detailed overseas trade statistics produced by HM Customs and Excise into time series for economic analysis and incorporation into the balance of payments accounts and GDP. There are three main tasks. First, the creation of price indices from the information on quantity and value recorded by Customs. Indices for around 2,500 product groups are compiled each month and used for aggregate price and volume index numbers. The second is to translate the Customs data into data which conforms with the accounting principles of the balance of payments accounts and the national accounts - the removal of freight costs from imports for example. Much of the work in this area is a joint effort with Customs, CSO, and other Departments. Finally there is seasonal adjustment, an intensive annual exercise in extracting something meaningful from (what is so often) a fog of white noise.

The current emphasis is on preparing for the 3rd version of the Standard International Trade Classification in 1987/88 and rebasing in 1988/89 particularly by upgrading the computer system that will handle these tasks. Two mainframe computers, one mini and two micros at present are involved but by the end of the next year this will come down to a single mini computer.

The results of S2A1's work comprises about 1,000 published

time series on United Kingdom exports and imports; by value, volume and price; by commodity and by country or geographical area. Many of these appear first in the monthly press notice and then later in more detail in *The Monthly Review of External Trade Statistics*.⁵

Briefing on United Kingdom trade, foreign statistics and the EC

S2A2 is responsible for briefing on trade of the United Kingdom with other members of the European Community (EC) and on international trade generally. This remit is interpreted broadly and the information provided extends to the more general aspects of economic performance which have a bearing on trade. Briefing involves commentary and interpretation as well as the provision of data.

The section deals with *ad hoc* enquiries from business and from members of the public; compiles and publishes tables of comparative international statistics in *British Business*⁶ and *Economic Trends*⁷ and detailed analyses of the United Kingdom's overseas trade eg in the quarterly publication *UK External Trade Area X Commodity Analysis*⁸ - as well as drafting answers to a steady flow of Parliamentary Questions. More substantial exercises occur, from time to time, eg for Parliamentary Select Committees.

Work originating from within the Department is principally concerned with the export promotion activities of the British

Overseas Trade Board and its associated 'country desks' and of the Department's industry 'sponsor' divisions. One recent initiative undertaken by the section has been the development of a system of market analysis using OECD international trade data; this enables the identification of export opportunities analysed on a product and market basis, and many of the country desks are now using this system. There has been a substantial demand recently for basic economic and trade statistics on scores of countries and on all manner of products for the new GATT round.

Within the section, priority is now being given to computerisation, which should be made easier by the increasing availability of computer access to international economic and trade data.

Recording and compilation of overseas trade statistics

Statistics on overseas trade are collected by Customs as part of their routine monitoring of goods entering and leaving the country. Customs process the data and arrange for publication in the monthly and annual volumes of *Overseas Trade Statistics of the United Kingdom*⁹; but DTI is responsible for the published figures and policy associated with them. Enquiries about the content of tables and the methodology behind them are usually channelled through Section S2A3 who keep up a continuous close liaison between the two departments. This section also handles many of the Parliamentary Questions directed to Branch A, which total around 200 a year.

In addition to the basic trade statistics, Customs produce a series of special analyses. Some of these are used by S2A for the balance of payments accounts, some for the industry statistics produced by S1 Division and others for more specific purposes. One special analysis produces estimates of the proportion of trade invoiced in foreign currency, which form the basis of an article published periodically in *British Business*. DTI and Customs also work closely together on matters arising from membership of the EC, particularly connected with the aim to produce harmonised statistics for the EC as a whole. Major changes are due for implementation on 1 January 1988; these affect the documentation used to collect the figures and the system for classifying goods. The new goods classification - the Harmonised System - has taken several years to come to implementation, but it is intended to form the basis for international coding of goods throughout the world eventually. DTI also is closely involved in the development of other trade classifications eg the Standard International Trade Classification, the 3rd Revision of which will be introduced at the same time as the Harmonised System.

Plans for the completion of the Internal Market of the EC by 1992 will have an effect on the trade statistics and again DTI and Customs are collaborating to assess the implications, together with other Departments.

Company finance

Branch S2B is mainly concerned with all aspects of company financial statistics. Only one statistical inquiry is conducted but data about companies are brought together from a variety

of other sources to build up as complete a picture as possible of the current financial state of the industrial and commercial company sector and the prospects for the next year or two.

The inquiry conducted by the Branch is the quarterly company liquidity survey. About 260 large industrial and commercial companies participate in this voluntary inquiry. Figures of the amounts outstanding of most assets and liabilities receivable or payable within the following twelve months are collected and, since 1983, details of longer-term borrowing. The results are published in *British Business*. Statistics of insolvencies are put together from administrative information collated elsewhere in the Department and cover both bankruptcies and company liquidations. A note is published monthly and a more detailed article quarterly in *British Business*. Statistics of acquisitions and mergers of industrial and commercial companies are assembled primarily from press reports but supplemented by information obtained direct from companies about the methods of finance used. Results are published quarterly in *British Business* and in *Business Monitor MQ7*.

Some of the information from the above sources feeds into the company sector figures in the national accounts. As relatively little information is collected directly from companies about their financial transactions, the amounts allocated to companies in the accounts are sometimes little more than amounts not accounted for by other sectors. The relatively low quality of data on company finances is illustrated by the usually high value of the 'balancing item' which represents the mismatch between estimates of company income and expenditure due to errors and omissions in the accounts.

One way of checking and improving the quality of the data is to use data from companies' published accounts. Section S2B2 at Newport analyses the accounts of 3000 company groups and independent companies registered in Great Britain. Data from these accounts - comprising as many as 300 items for each company - are standardised, aggregated and grossed up to produce balance sheets, income and appropriation accounts and statements of sources and uses of funds for the industrial and commercial company sector. Results are published regularly in *Business Monitor MA3* and there are plans to introduce a quarterly publication in 1987. The coverage of this analysis is wider than that of the national accounts mainly because it includes overseas subsidiaries of United Kingdom company groups indistinguishably. Nevertheless it is a valuable source of extra data about the activities and financing of United Kingdom companies.

Estimates of real rates of return for United Kingdom industrial and commercial companies are calculated from national accounts statistics and compared with rates in other OECD countries; articles are published in *British Business*. Company financial statistics are often used as a basis for other exercises. For example they are being used in the current review of competition policy and have been useful in the recent review of burdens of accounting requirements on small companies. Their main use, however, is to provide government with knowledge of the recent trends in company finances.

In 1984/1985 S2B was responsible for a major report considering DTI's needs for service trade statistics; arising from this the BSO are now conducting more inquiries to the service industries and S1 are doing more work on tradeable information statistics. Assistance has recently been given in an exercise to assess the importance of exports of services to the United Kingdom economy. More generally S2B provides a first point of contact for inquiries concerning international trade in services.

Overseas transactions of United Kingdom companies

The bulk of the overseas transactions covered in Section S2C1 consist of foreign direct investment by United Kingdom companies and direct investment in the United Kingdom by foreign owned companies, together with the earnings on these investments. Annual information has been collected since 1958 to provide information analysed by country and by industry. The results are published in Business Monitor *M44*. Summary information with no industry or country analysis is collected quarterly for the balance of payments accounts. An inquiry into the book value of the assets attributable to the United Kingdom or foreign parent takes place triennially. The inquiries were recently extended to include the transactions of oil companies, work previously done by the Bank of England. Other important overseas transactions covered are the overseas earnings from insurance, films and television and royalties and similar transactions. Estimates of international trade credit in private sector ships and civil aircraft and capital expenditure of the United Kingdom shipping and civil aviation industries are also obtained from inquiries carried out by the section.

The immediate customer for this information is the CSO, who use it for compiling the quarterly and annual United Kingdom balance of payments. Within the Department, estimates of international direct investment and earnings by individual country are used by the divisions responsible for international trade and for encouraging international direct investment into the United Kingdom. The information is also used extensively by HM Treasury, the Bank of England, and other departments and is sent to the IMF and the EC to meet their requirements. The needs of non-government users are met largely from the information published in Business Monitor *M44*.

Financial institutions

Statistical inquiries to United Kingdom financial institutions are conducted by DTI or the Bank of England to provide the data needed for the national accounts. Section S2C2 is responsible for statistics of insurance companies, self-administered pension funds and non-monetary sector credit companies.

Quarterly inquiries are conducted which collect the statistics of transactions in financial assets from a sample of insurance companies and pension funds. There are also annual inquiries which collect income and expenditure and a full balance sheet, again on a sample basis. For the insurance enquiries, members of the Association of British Insurers are sent forms by the Association, who aggregate those returns. The DTI covers a sample of non-members.

The results of all these inquiries are published in Business Monitor *MQ5* and used by the CSO as a major input into the national accounts, including the balance of payments accounts. The monetary authorities make considerable use of the information to monitor and forecast trends in portfolio behaviour. Data on expenditure in the United Kingdom on property and fixed assets by these institutions are used for estimates of domestic fixed capital formation compiled by the CSO. Within DTI, information on insurance companies is used for general briefing. City analysts also make considerable use of these institutional statistics.

Consumer and other credit business

Section S2C2 also conducts inquiries into credit business. A monthly inquiry collects information on new credit advanced, amounts outstanding on credit agreements and repayments on regulated hire agreements, from businesses which grant credit to consumers or other businesses. The results from this inquiry are combined with the results of the monthly retail credit inquiry, which is conducted by the BSO alongside the retail sales inquiry. From January 1986 credit advanced on bank credit cards, *Access* and *Visa*, has also been incorporated to give a more comprehensive total for credit advances. Statistics on credit are first published in a press notice and later, in more detail, in Business Monitors *SDM6* for finance house credit and *SDM8*, for retail credit. A quarterly inquiry, which covers only incorporated businesses outside the monetary sector, collects data on assets and liabilities.

From time to time it is necessary to benchmark the results of the monthly and quarterly inquiries. This is done by means of a full-scale statutory inquiry to all credit-granting businesses. A benchmark inquiry is to be carried out in 1987, asking for details of credit business in 1986. Results are expected to become available in 1988.

Figures from the monthly inquiry are used as an input to monetary forecasts and for general briefing on the United Kingdom economy. The CSO use data from both the monthly and quarterly inquiry in the national accounts. Data from the monthly inquiry is used in the cyclical indicators produced by the CSO; credit advanced is an important component of the short term leading index. The Office of Fair Trading and the DTI policy division need the data to support their obligations on the working of the Consumer Credit Act and to generally monitor developments in the field of credit.

Research and development

Surveys of scientific research and development (R and D) performed in United Kingdom industry are presently carried out by S2C3, in conjunction with the BSO. They collect data on expenditure and employment in R and D. The surveys began in 1964 and for much of the time were triennial, but following criticism of the lack of up-to-date information by a House of Lords Select Committee, biennial sample surveys were introduced. The first of these was in respect of 1983, with full benchmark surveys every four years - one is currently being taken in respect of 1985. In this inquiry all private companies with more than 200 employees are approached and all public corporations known to perform R and D,

laboratories and industrial research associations are also included. In the sample surveys less than 100 enterprises are approached but they account for nearly ninety per cent of expenditure within private industry. To meet recent requests for even more up-to-date information, the sample surveys will in future be taken in every non-benchmark year. The results of the industrial surveys which are published in *Business Monitor MO14* or in *British Business* are used widely by DTI and other Government departments as well as the Cabinet Office.

Separate annual surveys of R and D financed by central government also cover expenditure and numbers employed during the year. They collect full detail of the most recent complete financial year and limited detail for the current year and three years ahead. Each central government department which spends on R and D provides information consistent with the Public Expenditure White Paper¹⁰. Some of the aggregated results are sent to the EC to meet their requirements and published annually in their *Government financing of R and D*¹¹. The results of this survey are also published in *Economic Trends*.

The uses of the information parallel that of the industrial survey. It is also used to compare the spending for different purposes such as industrial support, civil or defence R and D. In addition the government survey provides a major contribution to the Annual Review carried out by the Cabinet Office,¹² and are also aggregated with those of the industrial survey to measure the total R and D effort of the United Kingdom and in international comparisons. The branch is also contributing to the work on the comparability of the data available from international sources on manpower qualified in engineering.

Conclusion

This article began by referring to the aims of the Department of Trade and Industry. The supporting aim of statistical divisions can be expressed as follows:

“... to provide a statistical service covering trade, industry and commerce to meet the needs of Government and, whenever possible, the private sector”.

We hope that the description of statistical work in the article has demonstrated the relevance of this activity, both to the detailed aims of the Department and the wider needs of Government. We are very conscious of the need to reconcile the provision of information with a requirement to:

“... minimise Government burdens on business” (aim 1.1).

Much of the emphasis in recent years has been placed on minimising burdens and reducing other costs, whilst at the same time striving to maintain the quality, range and utility of statistical output. We expect this challenge to continue for the foreseeable future.

References

1. 'Statistics of Trade and Industry - a Bicentennial review' *Statistical News*, August 1986, (HMSO)
2. *Ships and Shoes and Sealing-Wax, a popular history of the Board of Trade*, (HMSO 1986), (Price £5.95 net)
3. *Striking a Balance: the role of the Board of Trade 1786-1986*, (HMSO 1986) (Price £3.00 net)
4. 'The Business Statistics Office after 15 years', *Statistical News*, February 1985, (HMSO)
5. *Monthly Review of External Trade Statistics* is available for an annual subscription of £38, which includes the annual supplement. Enquiries about subscription should be directed to DTI, S2A1, Room 255, 1 Victoria Street, London SW1H 0ET. Telephone: 01-215 4895/4894
6. *British Business*, (Department of Trade and Industry weekly) (Price £1.25 net)
7. *Economic Trends*, (HMSO monthly) (Price £9.50 net)
8. *United Kingdom External Trade Area X Commodity Analysis*, (Department of Trade and Industry quarterly). Annual subscription £15. Enquiries about subscription should be directed to DTI, S2, at the address given in reference 5. Telephone: 01-215 4895 / 4894
9. *Overseas Trade of the United Kingdom*, (HMSO monthly) (Price £17.50 net)
10. *The Government's Expenditure Plans 1986-87 to 1988-89* Cmnd. 9702-I and 9702-II (HMSO 1986) (Price, Volume I £4.80: Volume II £20.00) ISBNs 0 10 197020 X and 021 8
11. *Government Financing of Research and Development 1975-1984* (Eurostat) (Price £5.70 net). Available from HMSO bookshops listed on back cover.
12. *Annual Review of Government Funded R and D 1986*, (HMSO), December 1986 (Price £10.95 net)

Letter from Thomas Lack, a Secretary of the Board of Trade from 1810 to 1836 to The Honourable T Spring Rice, Financial Secretary to the Treasury from 1830 to 1834.

Board of Trade
31st March 1832.

The Honourable
T Spring Rice

Sir,

I am directed by the Lords to request that you will submit to the consideration of the Lords Committee of His Majesty's Treasury the following proposal for establishing in this Department, a Branch, the Duties of which shall be, to obtain and systematically arrange Returns upon the Wealth, Commerce, & Industry of the United Kingdom for the purpose of preserving Information, and, from time to time, of publishing such Reports as have generally been required by Parliament, or by His Majesty's Gov^{ts}.

No System for carefully abstracting in clear and accurate Form, the Information which passes through the Board of Trade on these subjects has yet been established, & it appears to the Lords of this Committee that a distinct Branch for this Purpose, obtaining Returns from other Departments, and concentrating the Information already in their Possession, might be of great public Utility, & although attended with some Expense, yet, that indirectly, the savings to the Public upon the costly & desultory Returns which are occasionally called for, by the Houses of Parliament would be considerable.

This is the eleventh in a series of articles on the structure and functions of the Government Statistical Service. The twelfth in the series on HM Customs and Excise will appear in the February 1987 issue.

The Right Honourable T S Rice

Sir

I am directed by the Lords etc to request that you will submit to the consideration of the Lords Commissioners of His Majesty's Treasury the following proposal for establishing in this Department, a Branch, the duties of which shall be, to obtain and systematically arrange returns upon the Wealth, Commerce, and Industry of the United Kingdom for the purpose of preserving information, and, from time to time, of publishing such reports as have generally been required by Parliament, or by His Majesty's Government.

No system for carefully abstracting in clear and accurate form, the information which passes through the Board of Trade on these subjects has yet been established, and it appears to the Lords of this Committee that a distinct Branch for this purpose, obtaining returns from other Departments, and concentrating the information already in their possession, might be of great public utility, and although attended with some expense, yet, that indirectly, the saving to the public upon the costly and desultory returns which are occasionally called for by the Houses of Parliament would be considerable.

Their Lordships would propose that the vast mass of statistic information which is contained in the returns to Parliament for the last ten years should be digested and concentrated under separate heads, so as to be of easy reference, and to establish a form under which a complete and extended system may be periodically carried on — happily a portion of the labour necessary to this object has been anticipated by private industry; and the difficulty will not be great. Beyond this, it can be only necessary, on the present occasion, very shortly to recapitulate the further means of information which might be placed at their disposal.

The Excise would give a measure of that consumption which marks the general distribution of wealth and comfort in the country with some view by means of the Auction Duty of the Transfer of Duty.

The Custom House would afford means of carrying on, with some improvement and extension, the returns upon trade and navigation and revenue in the forms which have been most generally approved by Parliament. Inference upon the wealth of the country, its advance or decline, might be drawn from the Probate Duty and Legacy Tax and some criterion of the state of commercial operations found in the amount of stamps on Bills of Exchange — on receipts and on policies of insurance — the house and window tax exhibiting the number of houses rated at from £10 to £20 and upwards with classified returns of the tax upon horses, servants and carriages would mark the distribution of wealth and of gains, whilst further information of importance would be obtained from the Post Office.

With many subjects of internal economy the public is wholly unacquainted and it will in some cases be difficult to arrive at any accurate estimate of the produce of our own soil; but possibly by the same machinery under which the census of population has been taken, or by returns from the several markets in the country, information might be registered upon the produce of the mines and of agricultural and other industry; much of which is quite independent of the supervision of any department. Whether in all this the officers of the Excise and other departments may be made available for obtaining information, and to what extent correspondence for this purpose may be established, must be for the present left to consideration. This further in the opinion of their Lordships that statistic information upon the state of our Colonies and Foreign Dependencies, though in less detail, should be collected and registered; facilities for that purpose, may be immediately afforded by the Colonial Department, and Board of Control and regular returns ordered for the future — and perhaps even the reports of the Consuls abroad on the state of British trade in foreign ports may, with some reserve, be advantageously abstracted. It may beyond this be considered how far the coinage and state of the circulation, the state of crime — of insolvency — of mendicity — of education — the amount of county rates — church rates — and poor rates — the distribution of funded property — saving banks — the tonnage on canals and artificial docks — and other points may eventually be included in the returns which the department proposed will classify.

Their Lordships have however not attempted a complete enumeration of the objects which may be included in a plan so capable of extension. If this outline should be approved, they would recommend that they should be authorised to make arrangements for the construction of such a branch of this department as may appear to them requisite for at least beginning with the work they propose.

They cannot as yet presume, with any hope of accuracy to form an estimate of the annual expense of such an establishment — once organised the work to be performed would probably grow in extent and importance but at the same time it should only do so as it may be found useful to the public; and there can be no doubt that in the event of success, any additional expense would be amply compensated by the saving which would accrue in other departments of the government in the preparation of voluminous and irregular returns for the two Houses of Parliament — but Their Lordships believe that they will be quite safe in limiting the annual outlay at present to a sum not exceeding £1500 which they would request the authority of the Treasury to expend if necessary.

T L

The BBC Domesday Project

Howard Newby, Director, Economic and Social Research Council Archive (ESRC), University of Essex

On November 25th 1986 the BBC launched the Domesday Project, a new 'Domesday Book' enjoying interactive video-disc technology. It promises to begin a new era of information dissemination and seems likely to be the forerunner of moves by the BBC into the field of 'datacasting', a marriage of conventional broadcasting with new innovations in information technology. This article reviews the background to the project, summarises the kind of information to be found on the video discs and outlines future plans.

Background

The Domesday Project originated from the desire of the BBC to celebrate in some form the 900th anniversary of the Domesday Book during 1986. In 1984 a celebratory television series was being mooted when a producer at BBC TV Network Features, Peter Armstrong, decided to explore the possibility of producing a twentieth-century equivalent of William the Conqueror's Book of Winchester. In a similar fashion the aim was to produce a cross-sectional snap-shot of Britain in the mid-1980s, not only for the benefit of future generations of historians, but also for the education and entertainment of the contemporary public. This being the age of 'high-tech', however, the quill pen and parchment of the original were to be replaced by the micro-chip and the laser beam. The 'book' was to be a set of video discs, played on a new type of interactive video-disc player and interrogated via a micro-computer.

Although video-disc technology is not new, interactive video disc is. Alongside the compilation of information for the 'new Domesday Book' a considerable amount of technological development was therefore necessary. A new interactive disc player was developed by Philips Electronics Ltd., employing the Philips Laservision (LV-ROM) system of information storage and retrieval. Acorn Electronics extended their previous collaboration with the BBC by enhancing their successful BBC Micro, and Logica Ltd designed the all-important software which was to be stored on the discs along with the information and would ensure that it was readily accessible in a simple-to-use manner. The Domesday Project became what is thought to be the largest and most ambitious video-disc project yet to be undertaken and gave the BBC a significant technological lead in this area.

The project was formally launched at a press conference in November 1984, but the project team was not finally assembled until January 1985 when the hitherto peripatetic staff moved into offices at Bilton House, Ealing. In most respects, therefore, the Domesday Project has moved from start to finish in less than two years and this needs to be kept in mind when considering the magnitude of the task which has been involved. The Domesday Project was a corporate BBC venture of considerable scale, involving not only BBC TV Network Features, but BBC Enterprises Ltd (who market the discs), Educational Broadcasting, BBC Data, the Open University Production Centre, BBC Engineering and Research

Division and a number of other branches of the BBC's organization. Added to this were a very large number of outside organizations who were formal contractors to the project or who rendered assistance. The Domesday Project, then, was innovative, complex and completed in a great hurry — conditions which were not dissimilar to those under which the Domesday Book was produced 900 years ago.

Contents

The unique quality of video-disc technology is that it enables information which has conventionally been held separately to be brought together on one medium. The Domesday Project has assembled on a 'double album' of two Laservision discs:

- 24,000 maps, including the entire Ordnance Survey 1:50,000 series for the United Kingdom
- 200 megabytes of data, approximately 9,000 discrete datasets
- 2,000 textual items, approximately 250,000 pages of information
- 50,000 photographs, around 22,000 of which come from a national photographic competition, with the remainder from photographic archives, distinguished professional photographers, special commissions, etc.
- 60 minutes of moving film and sound.

This massive assemblage of information can be manipulated and interrogated by the user in new and exciting ways. It is not a conventional videotext system: users can handle the information interactively, asking a variety of questions of the data, engaging in a degree of data analysis, down-loading onto floppy discs and even, in many cases, printing out hard copy. As a 'desk-top' system for use in libraries, in educational institutions, in the office or in the home the Domesday Discs provide a full portrayal of life in Britain in the 1980s.

The key to accessing this huge amount of information is the menu-driven software. A user wishing to learn about a particular topic or issue does so by typing it in on the micro keyboard and then receives a menu from which to choose. In effect the user is interrogating a massive keyword thesaurus which is also stored on the discs. This is hierarchically organized running down from just four broad categories (economy, society, culture and the environment) to hundreds of thousands of individual items conforming to a piece of text, data, etc. Boolean searches are also possible. A parallel source of entry is via the maps. Rather as one can move up and down the hierarchy of the thesaurus from the general to the specific, one can use 'zoom' software to move in and out of spatial areas — from a map of the United Kingdom (and accompanying satellite photographs) to a floor plan of major buildings in city centres. At each level in this spatial hierarchy, maps, data, text and photographs can be called up.

In selecting and compiling this information the BBC has been advised by an Editorial Board consisting of experts drawn

from the academic world and from public service. They have sought to arrive at a reasonable balance of information on the discs, constrained not only by storage capacity but also by availability. For the information compiled by the Domesday Project is not only 'multi-media' in conventional terms, but it also crosses the boundary between 'primary' and 'secondary' data. The Domesday Project clearly relies heavily on existing sources of information, but it has also sought to collect its own. This becomes clearer in the light of how the discs themselves are structured.

One of the discs has become known as the **community disc**. The information on this disc consists primarily, although by no means entirely, of the results of a special survey commissioned by the BBC during 1985. This survey has attracted much of the publicity surrounding the project, so much so, indeed, that many members of the public believe that it is the project. The BBC, working in consort with local educational authorities, organized over 14,000 schools, plus a large number of voluntary groups, to collect information on their local areas. Each school or group was allocated a block of twelve 1km squares. In this area they conducted a survey of land use (in effect, land cover) and a survey of functional features (a list containing items from ponds to pubs). They also supplied three colour slides each and wrote up to twenty pages of free-format text about their area.

This information has been assembled, with the assistance of specialists at Loughborough University and, where appropriate, mapped, with the help of a team at the Department of Geography, Birkbeck College, London. The result is a 'bottom up' view of life in Britain in 1985 — a source, no doubt, of considerable speculation by generations of future social historians. The information on the community disc can be accessed either via place names and maps (perhaps the most likely route) or via topics using the thesaurus. The system is simplicity itself, with a trackable device or 'mouse' running a cursor across maps and up and down menus to obtain the required information. Validity checks have been carried out on the data, but the text has been edited only for defamation. Otherwise it stands, warts and all, as a historical record.

The second disc is the **national disc**. This consists primarily of information taken from national sources although, it should be emphasised, it is often organized into sub-national and even (as in the case of the 1981 Population Census Small Area Statistics) very local units. Four main data suppliers were involved: the Department of Geography at Birkbeck College, London, the Centre for Urban and Regional Development Studies at Newcastle University, the Institute of Terrestrial Ecology at Bangor and the ESRC Data Archive at Essex University. The Data Archive, for example, was able, with the agreement of its depositors, to extract from its holdings many of the most widely-used reference surveys. These included Government-generated datasets such as the Population Census for 1981, the General Household Survey, the Family Expenditure Survey, the CSO Macro-Economic Time-Series Databank and so on. They also included non-governmental sources such as the British Election Study, the British Social Attitudes Survey and the BBC's own 'Daily Life' time-budget survey. The Archive, in common with other suppliers, manipulated the raw data in order to conform to

the Domesday system's specifications. For example, the data is generally held as a series of cell counts on cross-tabulations rather than in a 'new' form.

Once again the data can be accessed either by topic or, where appropriate, in a mapped form. The data can be manipulated on the screen and can be displayed in a variety of ways — as tables, bar charts, pie charts, scatter plots, graphs, etc. The user can choose not only the form of display, but such matters as interval levels, spatial resolution, measures of association and so on where appropriate. (In general, the software informs the user where an intended manipulation is **not** appropriate.) The national disc therefore consists of a compendium of information which, although theoretically in the public domain, is often in practice difficult for the public to access.

Implications

Part of the appeal of the Domesday Project is its capacity to utilise modern technology to address the information needs of people in their everyday lives. It is not intended to be encyclopaedic, in the sense that it is a fully comprehensive and authoritative statement, but is rather like a multi-media exhibition which the user negotiates according to his or her priorities, and not necessarily those of the compilers. At the very least the Domesday Project will allow a far more imaginative use to be made of all those BBC micros languishing in school cupboards. More speculatively it could lead to important steps forward in the dissemination and use of information ostensibly in the public domain.

The BBC has committed itself to establishing a video disc unit, to be sited in the former film studios at Elstree. Further projects are planned or under way. The Domesday Project relied heavily, however, on the ethic of public service broadcasting and the goodwill generated by the desire to commemorate the anniversary of the Domesday Book. It is, perhaps, significant that the greatest difficulties that were encountered were often legal and institutional rather than technological. Frequently the time and resources required to negotiate permissions and copyright were grossly underestimated. Many contributors were happy to assist in an exciting and historic venture: it is to be hoped that this enthusiasm can be harnessed in the future.

Certainly the Domesday Project has demonstrated that hitherto expert knowledge can be widely democratized. Public participation has been a keynote of the Domesday Project and over one million individuals are estimated to have been involved in it. The project has built upon the development and use of micro-computers in the home, office and school. It has developed future standards for interactive video operating standards and established advanced information-handling software. But it has used these technological advances in some of the best traditions of British public service broadcasting: to educate and to involve the public, not to obfuscate and alienate it. Properly channelled the accessibility of the public to the information it requires can be transformed by this kind of enterprise.

Howard Newby is Professor of Sociology at the University of Essex and Director of the ESRC Data Archive. He was a member of the Editorial Board of the Domesday Project. The article is written in a personal capacity.

Input-output: Eighth International Conference, and proposals for the 1984 United Kingdom Tables

Robin Lynch, Statistician, Central Statistical Office

An international conference on input-output techniques took place in Sapporo, Japan in the week of 28 July - 2 August 1986. This was the eighth in a series beginning in 1950 in Driebergen, in the Netherlands. This first conference was attended by fifteen participants in addition to the Dutch hosts. Succeeding conferences have grown in both size and stature as well as in terms of the number of countries of the world represented.

There were two representatives from the United Kingdom Government Statistical Service: the author, who is currently engaged in compiling United Kingdom input-output tables for 1984, and John Astin representing the Department of Trade and Industry, who are the main official users of the United Kingdom tables.

One hundred and ten papers were presented at the conference in Sapporo, about thirty in the morning plenary sessions and the rest in the many afternoon workshops. Some three hundred people attended the conference, one hundred and fifty from Japan and the other one hundred and fifty from forty different countries around the world. The participants were a mixture of government officials representing the table compilers, academic researchers often engaged in economic modelling of their country (or region within a country) and industrial economic consultants.

It was particularly appropriate that the conference was held in Japan as some two thousand people are employed in government on tasks directly aimed at compiling comprehensive input-output tables for Japan and the seven main regions of the country. The data are held for about 500 different industries and published at the seventy-two input-output group level. They have produced sets of tables for Japan for the years 1975, 1980 and 1985 on a consistent basis at both current and constant prices.

The honorary chairman of the conference was Wassily Leontief, the founder of input-output methodology and happily celebrating his eightieth birthday during the week succeeding the conference. It was a matter of regret that Sir Richard Stone of the United Kingdom was unable to attend the conference, as he has followed Leontief in being awarded the Nobel prize for his work on national accounting and input-output analysis. He would undoubtedly have been acclaimed by the conference participants for this honour.

The thirty or so papers delivered in the plenary sessions were available to the participants at the start of the conference, and the workshop papers only available on the day before presentation. This meant that each paper could only be lightly skimmed through to determine whether it was readable and interesting, before attending the presentation. Invariably it was the subsequent question and answer sessions which proved

of value in assessing the development and worth of the technique and the application being reported.

The topics covered by the conference can be categorised under the following headings:

1. Compilation techniques and problems (16 papers)
2. Regional analysis (12 papers)
3. Economic forecasting, modelling and planning (21 papers)
4. Mathematical techniques (7 papers)
5. Special problems of the applications of input-output in developing countries (15 papers)
6. Other miscellaneous topics (about 40 papers)

Because of the large number of papers and the short time during the conference for study and absorption of these papers, it is not possible in this article to give more than a flavour of the wide-ranging discussions held after the paper presentations. These discussions took place during plenary sessions, in the workshops and informally outside the conference. Copies of the papers of most relevance to the work of compiling input-output tables for the United Kingdom, both in terms of compilation methodology and potential uses in the country, have been posted to the office from Japan, and those interested in obtaining a list of titles should contact the author at the Central Statistical Office, Great George Street, London SW1P 3AQ.

The main impression gained was that the participants largely split into three camps:

- compilers,
- users (classical) and
- users (modern economic modellers).

Compilers

These consist of statisticians usually employed by national governments whose responsibility it was to construct input-output tables for their countries, and sometimes regions within the countries. Often the input-output framework was the basis for a commodity flow system of estimating important final demand categories in the measures of a country's Gross Domestic Product. Their attitude seemed to be that input-output tables were useful/essential tools in the construction of national accounts statistics, and could also be used for some types of economic analysis in government planning

departments. On the whole there was little contact with academic research and private modelling ventures based on input-output techniques.

Users (classical)

These comprised a disturbingly large proportion of the academic researchers at the conference, who conducted analyses and constructed models on original input-output concepts such as constant returns to scale (linear functions), and presented linkages as causal relationships rather than merely interesting attributes of national economies. In view of the known drawbacks to these simple approaches, and coupled with the use of hopelessly out-of-date data, it is no wonder that some of the studies were considered of questionable value by many conference participants.

Users (modern)

This group comprised of researchers and consultants who were happy to use the input-output framework as the basis for disaggregated modelling of national economies, but adopted a more sophisticated approach in terms of model structures and relationships. This typically involved incorporation of factors such as marginal rates of response to changes in demand, the effects of prices, and differentiating between complementary and competitive imports etc.

A paper entitled 'Microcomputers and the Construction of United Kingdom Input-output Tables' was presented on behalf of the Central Statistical Office. This set out the development of input-output compilation techniques harnessing the power of the new user-friendly spreadsheet software now available on microcomputers. It provoked some interest and discussion, but a statistician from Singapore gave a description of the Local Area Network of microcomputers and spreadsheets used in his office to construct the national accounts which revealed that the United Kingdom were certainly not world leaders in this field!

Conclusions on the Conference

The conference suffered, as such conferences invariably do, from the unavailability of even the main plenary session papers until the start of the conference itself. This induced the reading of papers during plenary sessions and workshops, an incomplete grasp of the arguments while listening to the presentation, and a feeling of near-panic as the one hundred and ten papers piled up in the locker. Despite this, the conference and workshop discussions provided an invaluable insight into the strikingly different attitudes of both governments and academics to the role of input-output tables both in the statistical system of a country and in economic models used for planning purposes. It is a technique in which significant resources have been invested in Eastern bloc

countries, in Japan and many developing countries. It has been adopted by China as a major planning aid, and several papers were presented at the conference by, or on behalf of, Chinese statisticians and modellers.

The lasting impression of the conference was that whilst there remains a disturbingly large section of the academic world who are happy to continue investigations of a largely theoretical nature based on out-of-date tables and restrictive assumptions stemming from the original theory of input-output as, layed down 'in tablets of stone' by Leontief in the 1930s, there also exists a significant group of modellers who effectively embed the input-output framework in their disaggregated models and employ sophisticated econometric techniques to generate analyses and forecasts of considerable influence. It is the existence of this group, and the knowledge of the drawbacks to a simplistic use of the Leontief inverse and associated derived matrices, which has suggested the publication plans for the 1984 set of input-output tables for the United Kingdom. Comments on these proposals as outlined below, are welcome.

Proposals for the production of the 1984 Input-output Tables for the United Kingdom

Before the conference, proposals were under consideration for revising the format of the next set of input-output tables for the United Kingdom. Discussions on the topic of suitable publication forms, especially in view of the increasing availability of microcomputers and the associated spreadsheet software packages, took place at the conference. The intention is to publish the 1984 input-output tables for the United Kingdom in the Spring of 1988, in the following format:

1. Publish the full disaggregated Make, Domestic Use and Imports Use matrices - these are the basic statistical source data.
2. Publish a reduced number of derived tables - they would be the commodity by commodity Leontief inverse and the flow form of Table I of previous publications, showing the primary input content of final demand. Additional statistical tables would be the conversion matrices showing the transformation of national accounts functional classifications for final demand components such as consumers' expenditure, government final consumption and capital formation to an input-output group basis.

No other country publishes so detailed derived tables as produced in the United Kingdom for 1979, and in view of the ability of the increasingly popular microcomputer spreadsheet software to handle input-output tables with ease, there seems little point in producing them now. A full set of basic tables will be available on a floppy diskette, and these could be marketed with the printed volume.

Department of the Environment (DOE) Household Projections

Shekhar Nandy, Statistician, Department of the Environment

Summary

This article briefly describes the basis of the method of household projections developed by the Department of the Environment and touches on some of the problems and shortcomings.

Introduction

The Department has been producing and publishing household projections for England and Wales for over twenty years and in April this year released the latest 1983 based estimates covering the years to 2001^{1,2}. This publication which contains figures for the regions, for English counties, metropolitan districts and London boroughs, also includes a short discussion of the findings.

Who requires these estimates and at what level?

Projections of the changes in numbers of households, assuming that past trends will continue, provide reference points for assessing likely demand for housing at national and local levels and, therefore for the release of land through planning decisions; electricity, water, gas and telephone services; every product or service which is related more closely to the number of households than simply to the population. So the customers for the projections range from central and local government interests to manufacturers of pet foods. The household, rather than the individual, is the basic economic unit that buys cookers, washing machines, telephones and pet foods. Usually the people interested in these estimates wish to know about the likely distribution of these households across the country.

The household

Currently, the 1981 Census definition of a household is used. This differs from the 1971 Census definition, although Office of Population Censuses and Surveys (OPCS) have concluded that the new definition is close to the way in which the old definition was applied in practice in 1971 (See the 1981 Census, Definitions volume, page 9)³.

As the projection method depends on data about proportions of people within categories who head households at the consecutive censuses, the household head has to be defined in a comparable way. In 1981 either the husband or the wife could be entered first on the census return, whereas notes in earlier censuses defined the husband as the head. Consequently for the purposes of these projections OPCS produced information on heads of households consistent with the previous censuses. It is arguable, at least, that better projections could be made if the wives were classified as heads of these households, but the data from the earlier censuses cannot (in practical terms) be reworked.

In these projections the households have been classified according to who is defined to be the head of household. There

are three main categories: Married Couple Households, Lone Parent Households and Single Person Households; Other households are grouped as a fourth catch-all category. Each category is further subdivided according to the age and sex of the head of household. The definitional details are given in the publication³. The OPCS tables of types of households use quite a different classification in terms of the number of families (one, two, or more) embedded in each household and whether there are other people present. As a practical problem it has been found that because the projections have to be made for small areas, the data available is insufficient to allow for any greater number of subdivisions of household type. In Scotland the statisticians classify households into two main categories, ones with one person and others.

Headship rates

Heads of households and households are equal in numbers. Each household head is associated uniquely with a household. For example, a count of household heads who are lone parents yields the number of lone parent households. This naturally introduces the concept of the headship rate. Headship rates are functions both of the type of the head of household and the subset of the population for which the rate is computed. Thus, there is a married couple headship rate for all males aged between 35 and 40. The *type 'X' headship rate* for a given *population group 'G'* is the ratio:

Number of *type 'X' heads* in *population group 'G'*
divided by Number in group 'G'

It follows from the definition that the reciprocal of the overall headship rate is the average household size.

The following example gives the married couple headship rates, in England and Wales, for the 61,66 (sample), 71 and 81 censuses, for male heads who are in the age group 30 — 44.

Census Year	1961	1966	1971	1981
Headship Rates	.9284	.9589	.9674	.9774

The Census Division of the OPCS assisted the DOE in obtaining these headship rates. For each of the full censuses only the ten per cent sample was used and some alignment of regions was undertaken for the earlier censuses.

How are these headship rates used in the projection routine?

For the past data, the population is disaggregated in each area by age, sex, marital status, and for each disaggregation, sets of four headship rates for each type of head of household are obtained. These sets of four headship rates relate to the past four censuses.

To each set of four headship rates, spread across the years 1961, 1966, 1971 and 1981, a monotonic curve, bounded in the interval (0, 1) is fitted; by reading along this curve the projected headship rates are obtained. The assumption underlying this routine admits of two kinds of trends on the part of past data either a monotonically increasing trend or a monotonically decreasing one. The choice for the basic curve is the scaled logistic (cumulative) curve; this is essentially a hyperbolic-tangent curve. For decreasing trends the complement of the curve from 1 is used. The method of fitting uses a least squares routine and has been written to cope with different numbers of points. A routine that weights the various data points on a scale of differing importance has been incorporated and there is in addition a continuity factor that constrains the curve to go through the census points. The methodology was developed within the DOE and the Building Research Establishment (BRE) and has been outlined in a BRE paper by Dr. Ian Corner called 'The extrapolation of headship rates in the revised DOE household projection system'. In an internal exercise the DOE has considered the effects of varying the weights on these projections.

It is clear from the definition of the headship rate that multiplying a headship rate by the number in the corresponding population group gives the count of households. So far, how the future headship rates are estimated have been described; the following section describes how the counts for the corresponding future population groups are computed.

Obtaining future population counts and how these are used with headship rates to produce counts of future households. The problem of controlling.

Counts of the future household population disaggregated by age, sex and marital status are required by the projection routine. The OPCS and the Government Actuary's Department make population projections for the resident population disaggregated by age, sex and marital status for the whole of England and Wales. Consultations between the DOE, OPCS, and the local authorities introduce factors for future internal migration and making assumptions about the distributions of marital-status-ratios across the country, and age/sex distributions of the migrant population, the counts of the future resident population in the various small areas are obtained. The assumption about the marital status ratios maintains the differentials in these across the country as they were recorded in the 1981 census. An extra dimension has been added which ensures that locally the ratio of married men to married women remains approximately the same in future years as that in 1981. A process of controlling, described later, ensures that this is possible.

To obtain the count of the population in private households it is assumed that the numbers of the institutional population remain static at the 1981 census levels. The counts of the disaggregated household population are multiplied by the corresponding projected headship rates to obtain the first (raw) estimates of the numbers of future households. The assumptions made are described briefly in the publication^{1,2}.

Having obtained these first numbers for the future households a major practical problem is encountered. The projections for England and Wales should depend on the headship rates calculated from the whole population of England and Wales. However if the projections are made separately for Wales and separately for England, for the sake of consistency one would expect the separate estimates to add up to the estimate made on a joint basis. Similarly the projections for other large areas would be expected to add up to the projections for the constituent smaller zones. So, as a practical measure we are led to adjusting the 'raw' projections to satisfy this additivity requirement.

This method of adjustment has been achieved through a process of controlling which was developed by the BRE in conjunction with the DOE. The same method was first formulated by Deming in the US in the forties in grossing up counts from a survey. Deming's method was further developed by Stephan and they published a number of papers in the *Annals of Mathematical Statistics*,⁴ DOE's formulation of the problem is the same as Deming's but the present solution is more comprehensive. The problem has been formulated in terms of minimising a quadratic objective function in respect of a set of variables that are subject to a number of linear constraints. An explicit solution is possible. A technical paper on this method of controlling is in the course of preparation.

Some problems with the projections

Age and marital status factors

What should be the choice of age bands?

For England and Wales the headship rates are available in five year age bands nationally, and in fifteen year age bands sub-nationally. A five year disaggregation at a local area level leaves inadequate numbers for the estimates of the headship rates. The particular choice of age bands has been determined by the data available.

A more serious problem involves the data on marital status. Whereas in the past a marriage started the nucleus of a household, it is clear that progressively a sizable number of unions are forming outside marriage. As 'consumers' of housing etc, these new unions are behaving as married couples. As the consumption habits of these cohabiting couples are more akin to those of married couples, counting them amongst the non-married population could distort the results.

Institutional population

The assumption that the institutional population in a given area is going to remain at the 1981 level in the future, is a weak assumption. It is known that changing numbers of people are choosing to retire into retirement homes, situated in a number of desirable places. This assumption of constant institutional population will need attention in future years.

Internal migration

The figures for the numbers migrating within the country arrived at through the process of consultation are accepted by the projection routine. There is also a further implied assumption that the age and sex distribution of the migrants is almost similar to the non-migrating part of the population. This is likely to introduce a small error. Ways and means of making adjustments for this in the future are being explored.

General criticisms of the projection routine

The method of making these projections is very mechanistic and does not make explicit use of any regional socio-economic variables and indeed it has been found (so far) impossible to build into the model any such factors; some of the people involved believe that it will be impossible to do so in a projection routine at present. One of the objections put forward to linking the projections with the socio-economic variables is that it may be difficult to project the status of these variables, say, in twenty years time.

There is at present no satisfactory working model for household projections similar to those used by the demographers in projecting populations. Populations develop through the events of births, deaths and migration. The trends in these events are incorporated into a given base population at a point in time to produce estimates of the population in the future. In contrast, the life cycle of the household, its formation and dissolution, its dependence on social and economic factors are not as well understood. At present it does not seem possible to take a set of households forward in time and note their transformation in accordance with an accepted model.

The headship rates are calculated solely from the past census data. Sometimes the criticism is made that the DOE should be making more use of the large scale surveys such as the Labour Force Survey (LFS) in calculating these rates. There is a very strong argument for this. It must also be remembered that the regular English surveys are small relative to the ten per cent census information, and even the LFS is not large enough to provide household information at other than on a national basis. Changes in the social structure are likely to take place in the interval between censuses and yet our routines, are geared to discerning trends by looking at changes from one census to the next and could fail to respond promptly. We are therefore considering how and when information from household surveys can be used.

In conclusion

A few ideas behind why and how the DOE makes the estimates of the numbers of future households have been outlined. We in the Household Projection Service (DOE, 2 Marsham Street, London, SW1P 3PY Telephone: 212 8555) will be happy to answer any questions or receive any ideas on this topic from readers.

References

1. *1983 Based Estimates of Numbers of Households in England* (Department of the Environment 1986) (Price £25 net)
2. *1983 Based Estimates of Numbers of Households in Wales* (Welsh Office 1986) (Price £10 net)
3. *1981 Census, Definitions volume*, (HMSO) (Price £4.80 net)
4. *Annals of Mathematical Statistics*, (Institute of Mathematical Statistics) (USA, circa 1940s)

EMPLOYMENT GAZETTE

- MONTHLY -

The Department of Employment's main publication contains regular monthly statistics and also articles on current labour topics and surveys, notes on forthcoming changes in labour statistics, time series of the more important statistics and commentary analysing recent trends set against a background of trends in the economy as a whole.

Price £3.25 net - annual subscription including postage £35.00

Employment Gazette is available from HMSO at the addresses given on the back cover.

Performance Indicators for the National Health Service

Antonia Roberts, Statistician, Department of Health and Social Security

Introduction

In recent years there has been an increasing pressure from both inside and outside the National Health Service (NHS) for management information to aid performance appraisal. Performance indicators (PIs) have therefore been developed to supplement the management information already available. Performance Indicators are simply statistical information about health authorities or units presented in a systematic fashion within a national perspective to facilitate comparisons between such authorities. Managers, by being able to compare local performance with that of other authorities should be able to identify those aspects of the service they manage which warrant further investigation. The PIs are intended to be viewed as management tools to help those responsible for the delivery of health services — managers, clinicians, treasurers, nurses or other professionals — to run their services more effectively.

History

Some work in this field has been undertaken by health authorities themselves either individually or acting together, most notably through the Inter Authority Comparisons and Consultancy (at the Health Services Management Centre, University of Birmingham).

The Department of Health and Social Security (DHSS) has been working intensively on Performance Indicators since 1981. After some exploratory work, a package of indicators based on data already submitted to the DHSS was developed in collaboration with the Northern Regional Health Authority (RHA). This package was published in book form¹ in September 1983.

The 1983 package had significant limitations. Some fields eg children's services were not included. The data were limited in the the main to routine returns already submitted to DHSS. Many found the presentation less than helpful and it was therefore decided that further development work was required. The Joint Group on Performance Indicators (JGPI) was set up in July 1983 to advise the Secretary of State on the future development, publication and use of Performance Indicators. The JGPI mainly comprised senior National Health Service potential users of PIs. The detailed development work was undertaken by a number of multidisciplinary Working Groups (WGs). Eight such groups were set up composed mostly of NHS members, each group being chaired by an expert working within the NHS in that field. The Working Groups were intended to be representative of the managers who would be using the Performance Indicators. The Working Groups covered Acute Services, Children's Services, the Elderly, Mental Handicap, Mental Illness, Support Services, Estate Management and Manpower. In addition each Working Group had at least one analyst member ie an Operational Researcher, Economist or Statistician. Most Working Groups included

three such analysts typically a DHSS statistician, another DHSS analyst and a NHS statistician.

Content of Performance Indicator package

The resulting Performance Indicator package contains 450 indicators mostly at District Health Authority (DHA) level with some hospital level indicators. Most of the indicators are simple ratios eg nursing staff per occupied bed, discharges and deaths per available bed, provision per 1,000 relevant population. There are also more complex indicators. Three of these are described below in more detail; the 'standardised length of stay' indicators, the 'expected total cost per case' and the 'expected nurse staffing levels in hospitals'.

A weakness of the use of average length of stay as a hospital in-patient as an indicator of performance is that no allowance is made for the severity of cases treated in a particular authority or unit. The purpose of 'standardised length of stay' indicators is to obtain measures which take account of the variation in length of stay due to the condition of the patient being treated. The expected length of stay for an authority is calculated by combining the England average length of stay for each combination of age, sex and diagnosis in proportion to the District's patients in these categories. The following age groups are used: 0—4, 5—14, 15—44, 45—64, 65—74, 75—84 and 85 and over. Diagnosis is classified using the International Classification of Diseases to 3 digits. The expected length of stay is then compared with the actual length of stay, the comparison being expressed as a ratio.

The 'expected total cost per case' indicator uses methodology developed for resource allocation purposes by the DHSS. In the absence of specialty costs it is necessary to estimate specialty specific treatment costs if one wishes to take account of specialty mix when comparing total costs per case. Regression analysis is used to estimate the specialty costs. The analysis is only applied to 'major acute hospitals' ie with 250 or more beds mainly in the acute specialties.

The indicators on nurse staffing levels were developed in collaboration with Trent and East Anglian RHAs. The expected number of nurses is calculated by a regression formula that takes account of specialty mix of patients and level of workload. The expected number is then compared with the actual number in respect of every hospital. It is not intended that this indicator should be used in ignorance of local circumstances as it takes no account of quality of care or patient dependency. There is a data problem with this indicator because it has not been possible to allocate learner nurses to individual hospitals; clearly the consequent omission of about a fifth of the nursing work force weakens this indicator.

Data Sources

About half of indicators in the current PI package are based on data from existing central statistical and financial returns eg Hospital Activity Return SH3, the Non Medical Manpower census and the Hospital Cost Form 010. The remainder are calculated from data obtained specially from health authorities. In particular, special collection is required for indicators using complete national Hospital Activity Analysis (HAA) files. The HAA files consist of detailed individual patient records. Routinely, DHSS only has access to analyses of a ten per cent sample of records from HAA. This sample would not be adequate for the identification of specific conditions eg number of elective hip replacements in patients aged 75 and over, or the number of children aged under 16 discharged with asthma. There would also have been a timing problem as the ten per cent sample data is not available to the Department till eighteen months after the year to which it relates whereas it has proved possible to have the specially collected data available within ten months.

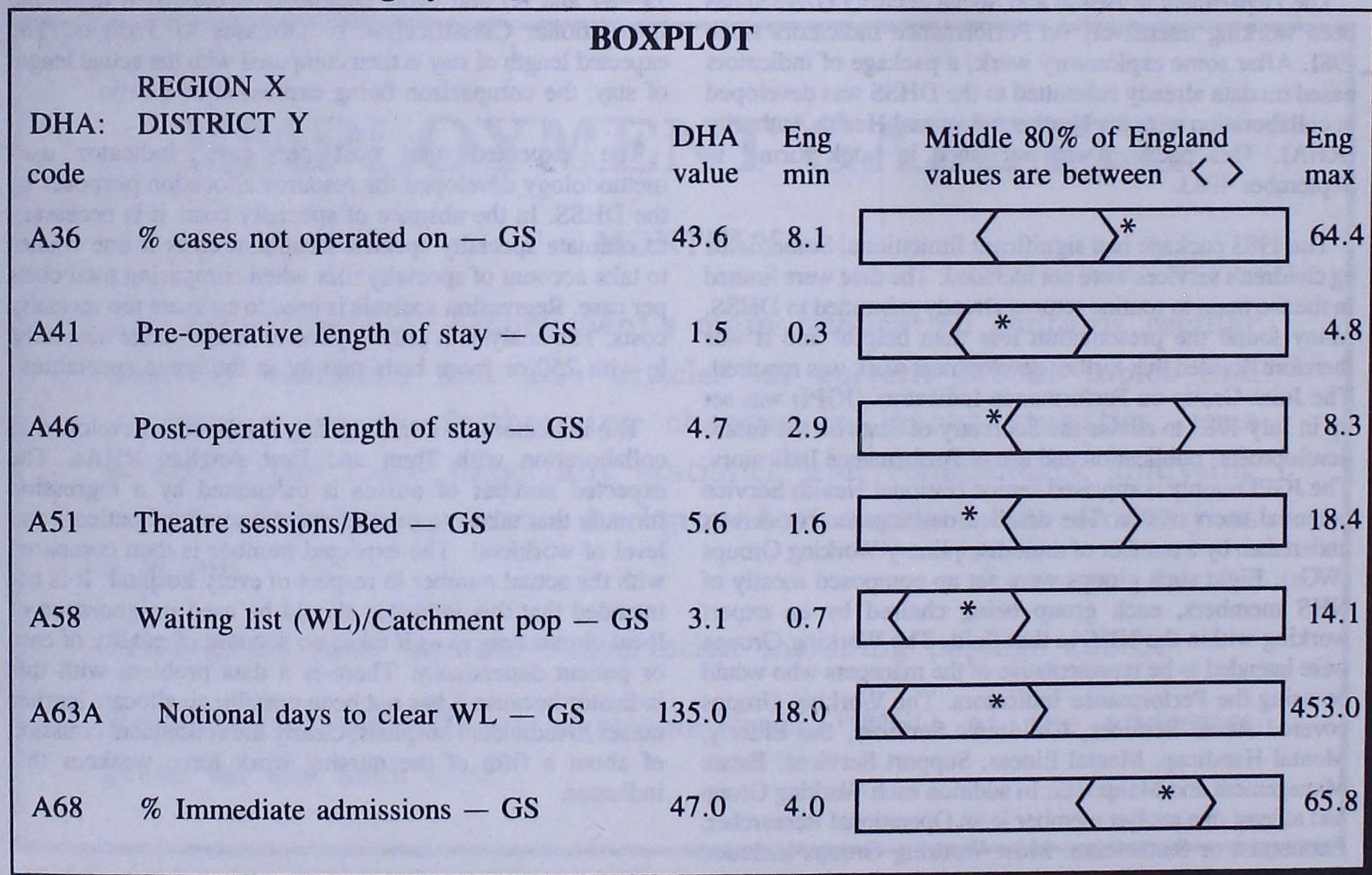
There are two main areas not covered by the routine statistics on manpower. Firstly, learner and agency nurses are not assigned to a particular care group eg acute, maternity, mental illness. This information is required for those indicators which try to match the nursing input to a particular group of patients. Secondly, data on consultants are only available routinely at regional HA level. When looking at district HA performance though it is important to have

measures of the medical input to complete the picture of the service being provided. The necessary supplementary medical manpower data are collected by Dr Coupland working with the Inter Authority Comparisons and Consultancy at Birmingham.

On the finance side staff costs are obtained specially for particular key groups not usually separately identified on the annual accounts eg physiotherapists, occupational therapists, portering and operating theatre staff.

The processing of three key groups of indicators was undertaken by W. Midlands, Mersey and E. Anglia regional HAs. W. Midlands produced the standardised length of stay indicators and E. Anglia the regression based indicator for nursing. Mersey produced the Total Acute Revenue Indicator (TARE) recommended by the Acute Working Group. The TARE indicator was pioneered by Mersey, it seeks to measure how much is spent on in-patient care of persons RESIDENT in the district. This indicator while simple in concept proved very difficult to calculate in the absence of patient or even specialty costs. Estimated specialty costs are obtained by the method already described. There is also a data problem in that patients treated outside their region of residence are often not coded to a district of residence. This has most impact on the four Thames regional HAs which have significant numbers of patients treated in the London conurbation but outside their region of residence.

**Figure 1 — DHSS Performance Indicators for 1984/85
General Surgery 2nd Line PIs**



**Figure 2 – DHSS Performance Indicators for 1984/85
General surgery 2nd line PIs**

OUTLIERS							
HH = top 10%				H = 81% to 90%			— = 21% to 80%
LL = bottom 10%				L = 11% to 20%			nd = no data
REGION X	A36	A41	A46	A51	A58	A63A	A63
DISTRICT Y	HH	—	LL	LL	—	—	—

A36	% cases not operated on — GS
A41	Pre-operative length of stay — GS
A46	Post-operative length of stay — GS
A51	Theatre sessions/bed — GS
A58	Waiting list (WL)/catchment pop — GS
A63A	Notional days to clear WL — GS
A68	% immediate admissions — GS

Logical Structure

Different users of the Performance Indicator package have different needs and it is neither necessary or appropriate for a user to be presented with all 450 indicators to choose from. The indicators were therefore grouped into logical hierarchical structures within each area of interest eg Children, Acute etc. The hierarchical structure concentrates a manager's attention initially on a relatively small number of key (first line) PIs which describe overall performance. If any of these stimulate his attention he may study these aspects in more depth by examining the appropriate second (and in some cases) third and fourth line PIs. For example, examination of the first line PIs for Acute Services might reveal a low (all specialties) throughput ie discharges and deaths per available bed. The user can investigate this further by looking at the specialty specific throughput indicators. This might in turn reveal long lengths of stay for the General Surgery specialty. Working down through the hierarchy the user could then pinpoint that this was due to a relatively long pre-operative length of stay. If this were associated with a low number of operating theatre sessions per bed one might surmise that the problem was due to lack of theatre time.

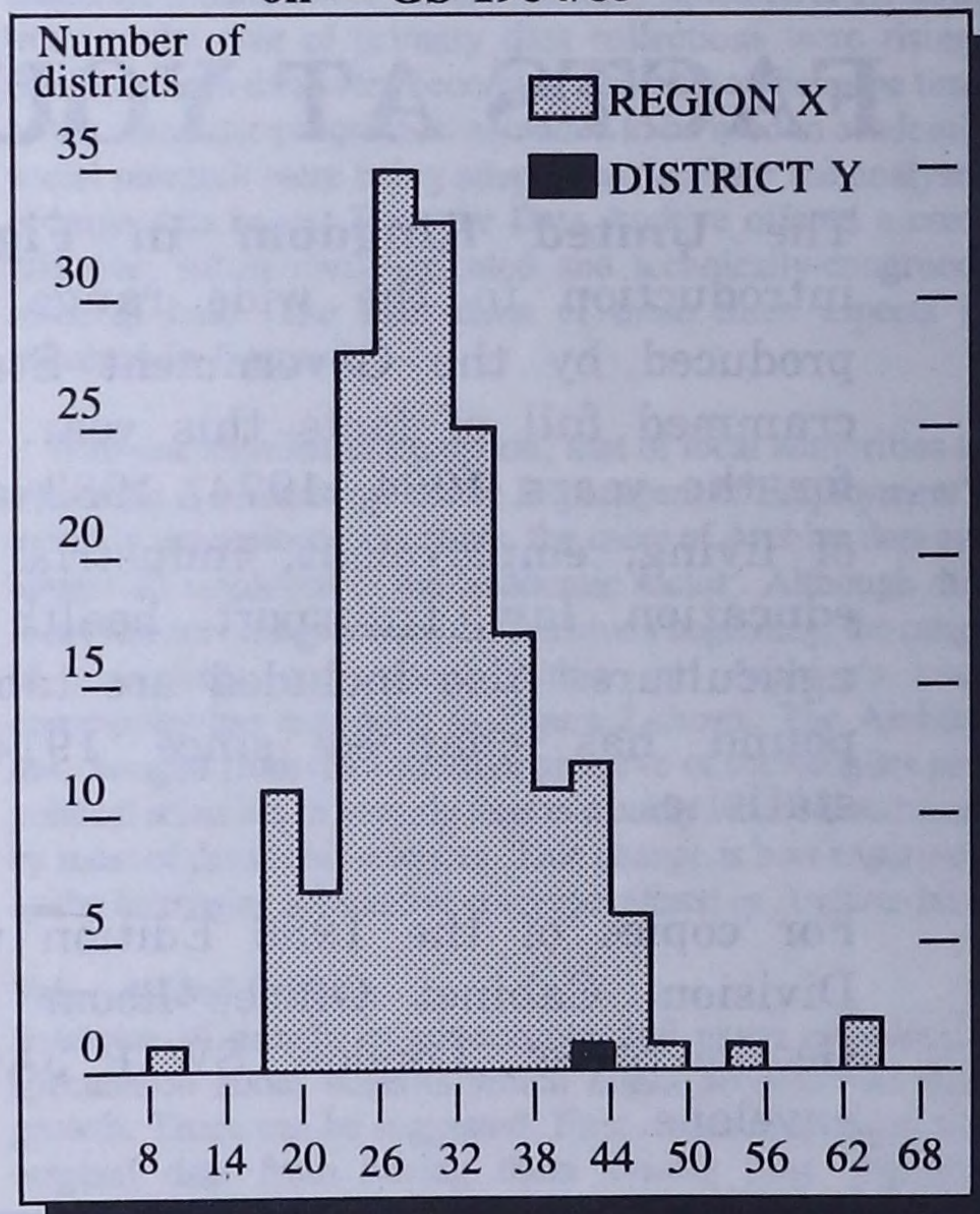
Use of Microcomputers

The Joint Group on Performance Indicators recommended that the PIs should be disseminated in an easily comprehended and digestible form using the advantages offered by microcomputers for flexible display of information and attractive graphical presentation. The system developed allows a user, with no previous computer experience, to search in a systematic and selective way through the PIs. The system runs on BBC microcomputers fitted with Torch Z80 second processors and a twin 80 track disc drive. Some examples of the computer displays from the BBC microcomputer system are shown in figures 1, 2 and 3.

The screen illustrated in figure 1 is a 'box plot' display of some key PIs. The box represents the distribution of the PI values. The angled brackets indicate the position of the middle eighty per cent of health authority values in the

distribution. The position of the brackets tells the user something about the skewness of the distribution. The asterisk denotes the value for district Y. It was felt that this presentation would at a glance enable a user to see which areas warranted further attention in a way that would be much less easy from a table of values.

Figure 3 – A36 % cases not operated on — GS 1984/85



The 'Outlier report' shown in figure 2 concentrates wholly on the district under reference. It allows a user to see at a glance whether the values for that district are at, or towards, the extremes of the range. Whereas 'box plot' display highlights the top and bottom ten per cent the 'Outlier report' focuses on the top and bottom twenty per cent.

The graphical display which many users have found most helpful is the histogram (figure 3). This enables the user to see their position in relation to the rest of the country taking account of the form of the national distribution, in a way that is not possible from the box plot alone. The user can list the names of the districts in any column allowing them to see if they are grouped with like districts. A clustering feature has now been developed which allows the user to choose a set of districts whose values will then be highlighted on the histogram.

Production

The first revised PI package² was issued to the NHS in July 1985. The activity data for this package related to the 1983 calendar year, the finance data to the 1983/4 financial year and the manpower data to the 30th September 1983. Managers need up-to-date data to manage their services and a second PI package was therefore issued in December 1985 using data which were a year more up-to-date. The next PI package (1985/6 based) will be issued in December 1986.

The Future

It is recognised that the current PI package has limitations and work is about to commence on revising the package in the light of practical experience in using it. There will be major changes to the data collected and the related information systems in the NHS from the beginning of April 1987. These should produce improved data in terms of content, quality and timeliness and the revision will modify the PI package to take advantage of these improvements. There is an almost total absence of measures of quality or outcome in the current PI package. It is to be hoped that research undertaken in this important area will lead to the progressive closing of this gap. The checklists proposed by the Working Groups and included as reference material with the PI package are a first step which need to be built upon.

References

1. Performance Indicators National Summary for 1981 (HMSO) (Price £14.00).
2. Sets of floppy discs based on 1983/4 and 1984/5 data (Price £45 each set), the Computer User Manual (Price £1.50), the Computer User Manual Supplement (Price £3), Guidance for Users (Price £3.50), Amendments and data Corrections (Price £4) can be obtained from DHSS Leaflets, PO Box 21, Stanmore, Middlesex HA7 1AY. A complete package of disc and guidance material is also available with one set of discs (Price £50) or with both sets of discs (Price £90).

FACTS AT YOUR FINGERTIPS

The **United Kingdom in Figures** pocket-sized leaflet is an introduction to the wide range of social and economic statistics produced by the Government Statistical Service. It is even more crammed full of facts this year. It contains key facts and figures for the years 1964, 1974, 1983 and 1984 on population, standard of living, employment, industrial output, energy, economic trends, education, law, transport, health and social security, tourism and agriculture. Also included are tables showing how the value of the pound has changed since 1914, as well as selected regional statistics.

For copies of the 1986 Edition write to the Information Services Division, Cabinet Office, Room 58/G, Government Offices, Great George Street, London, SW1P 3AQ, enclosing a stamped addressed envelope.

The Economic and Social Research Council (ESRC) Archive - The Practice of Data Ecology

Eric Tanenbaum, Deputy Director, ESRC Data Archive, University of Essex

Social science sometimes receives a bad press because of its practitioners' apparent inability to forecast future events. Without commenting on the broader controversy, this note describes a project initiated by the Social Science Research Council in 1967 which accurately foresaw many of the information needs of social researchers working some twenty years later. In 1985, the Economic and Social Research Council's Data Archive, to give the project its most recent name, supplied some 500 researchers with computerised data about social phenomena in Great Britain and abroad. (Although the Research Council could predict evolving functional needs, it had more difficulty in handling the name to be accorded the function. Thus at one time or another the Data Archive has been known as the Data Bank (1967-1972); the Survey Archive (1973-1980) and the Data Archive (1981). The Council itself changed its name from the Social Science Research Council to the Economic and Social Research Council in 1984). What follows here is a brief description of the Data Archive's work as a data distributor and a somewhat lengthier outline of current developments.

The Archive's Roots

The Data Archive was established by the Social Science Research Council and the University of Essex to preserve computer readable information about British society for distribution to researchers. Bearing in mind the state of computer technology at the time of the Archive's founding, it is not surprising that the emphasis was on the storage and dissemination of numerical data which had been collected with social surveys. Indeed the early impetus for the establishment of data archives like the one at the University of Essex was the belief that the millions of computer records collected annually by commercial market research firms were a rich and continuing vein of raw material which could be mined by academic researchers if they were given easy access to the data. To continue the mining analogy, archives were the collieries.

Growth Patterns

The early bulk of the Data Archive's material came from the commercial sector: academic researchers, particularly those who did election studies, also often contributed their data to archives. Subsequently, however, the conclusion of agreements in the government sector which allowed the Archive to hold large recurrent data sets was the spark that ignited academic users' interest. The government departments included the Department of Employment, the Office of Population Censuses and Surveys and the Central Statistical Office, and

the data sets were those such as Family Expenditure Survey, the General Household Survey, the 1971 Ward Library of Small Area Statistics and Macro-Economic Time Series Databank*. Even allowing for the frailties of bar chart representational data, the trend apparent in Figure 1 demonstrates the increasing importance of this source of data in the archive's growth.

Several factors account for the rise in usage which is also revealed in Figure 1. Easy access to large continuing sources of contemporary data appealed to researchers in disciplines who were turning to policy-related analyses: from the outset, the Data Archive undertook to transform any data that it received to a format that was compatible with the user's computer facilities. Traditionally this has entailed creating computer tapes to the specifications of the user's computer centre; recently the Archive has begun to encourage direct access to its holdings via both the inter-university computer network JANET and the British Telecom's more commercially-oriented Packet Switching System.

In addition these data were made available to a community that was finding that the 'traditional' sources of support for academic research were being financially squeezed at the same time as the cost of primary data collections were rising. Besides, these data were becoming available at the same time as the computer programs that tended to be used in academic social research were being adapted to facilitate the analyses of large data bases. Thus the Data Archive offered a cost-effective, substantively-oriented and technically-congruent research base. The interaction of these three aspects is reflected in Figure 1.

With one significant exception, that of local authorities to whom the Archive supplies the Department of Employment's monthly unemployment counts, the users of Archive data are almost all employed in the 'academic sector'. Although this focus has not changed since the Archive's beginning, the range of disciplines represented within the Archive's user community has expanded as Figure 2 shows. The Archive has changed from the exclusive preserve of sociologists and political scientists in its early days to a utility which is accessed by most of the social sciences. This change is best explained by the increasing substantive coverage offered by Archive data.

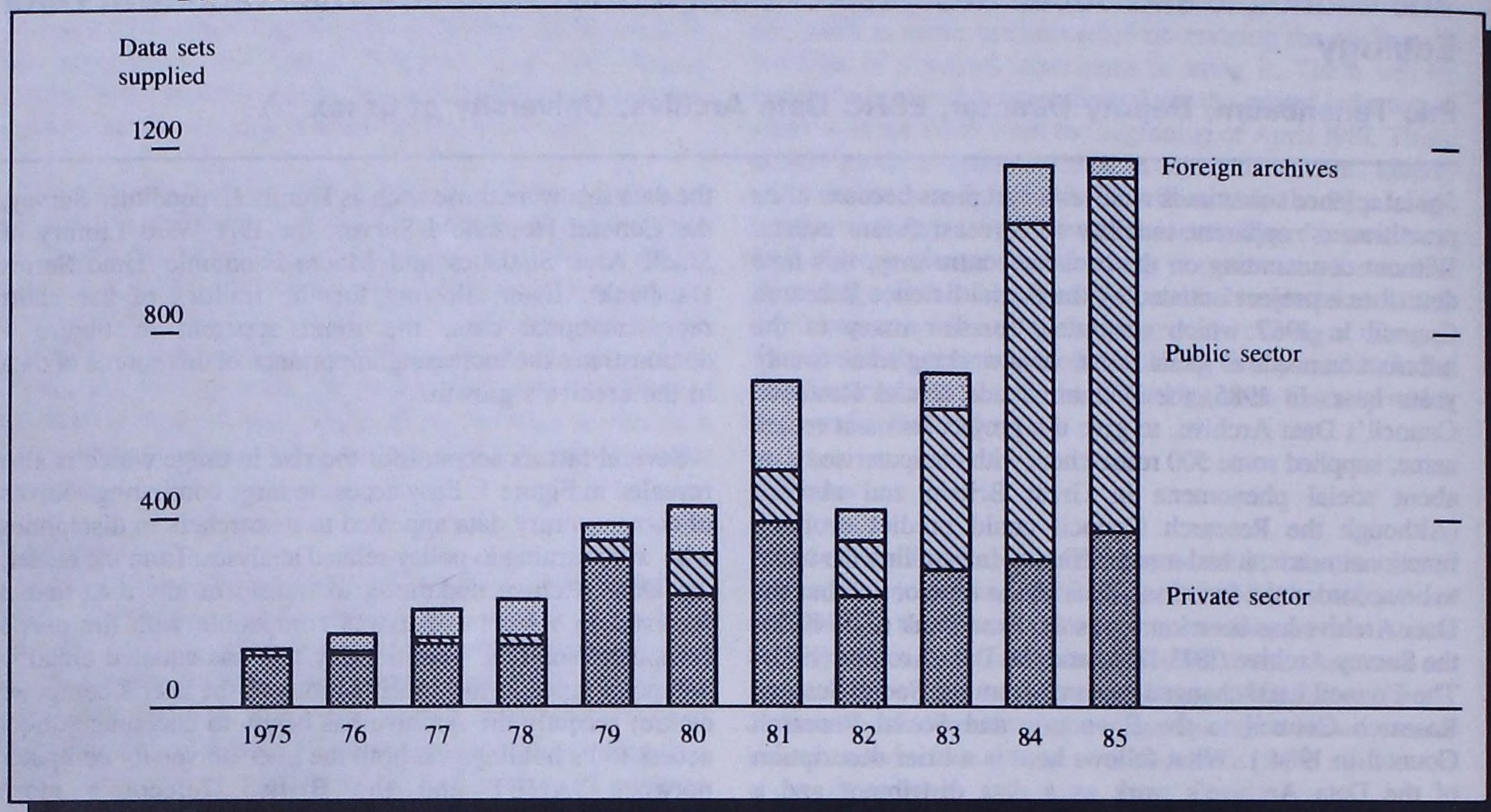
Value Added Service

Evidence of growth in acquisitions and usage encourages speculation about benefits which might accrue from that growth. Three can be suggested. First, value is added to the original data from having them viewed from multiple perspectives, as they are when subjected to secondary analysis by researchers who were not involved in the initial collection exercise. Aside from the obvious impact of different

*A complete list of data sets is beyond the space limitations of this article and would, in any case, soon be out of date. Recent acquisitions are described in the Data Archives tri-annual *Bulletin* available on request from the Data Archive and in the *Data Archive Catalogue*¹ (Cambridge: Chadwyck-Healey 1986).

Figure 1 — Data sets supplied: by source

Does not include direct access to Census and CSO data bank



disciplinary foci, the secondary analyst will often combine material from different sources or time periods to enhance the meaning of the data. In one current project, for example, two political scientists are assessing the impact of different welfare systems on individual philanthropic behaviour with a data file constructed from variables contained in Family Expenditure Surveys conducted between 1968 and 1982. The researchers benefit from access to data which they themselves could never afford to collect. The Department of Employment (it is hoped) will benefit from a look at 'their' data which is different from anything they would be likely to do.

The second value added to original data sets, then, comes from an increase in the information derived from their use in research projects which were at best peripheral to the original collector's needs. Recently, for example, data from the General Household Survey has supported projects on sex differences in sickness absence from work, social and economic factors in fertility differences, the growth and distribution of fringe benefits in British industry and the circumstances of families with pre-school children.

Finally one can point to the least noticeable element of the Archive's work, its archiving of data. The Data Archive protects the accessibility to computerised data across time (and technological change) by transforming all the data that it takes in to a single in-house format. In doing so it builds a 'shell' between its data holdings and the outside world. Besides allowing it to confront external changes as they arise, this standard core minimises the Archive's transition between

its own technological stages (say as when it changes its computer system) to a single sweep through its collection.

Current Developments

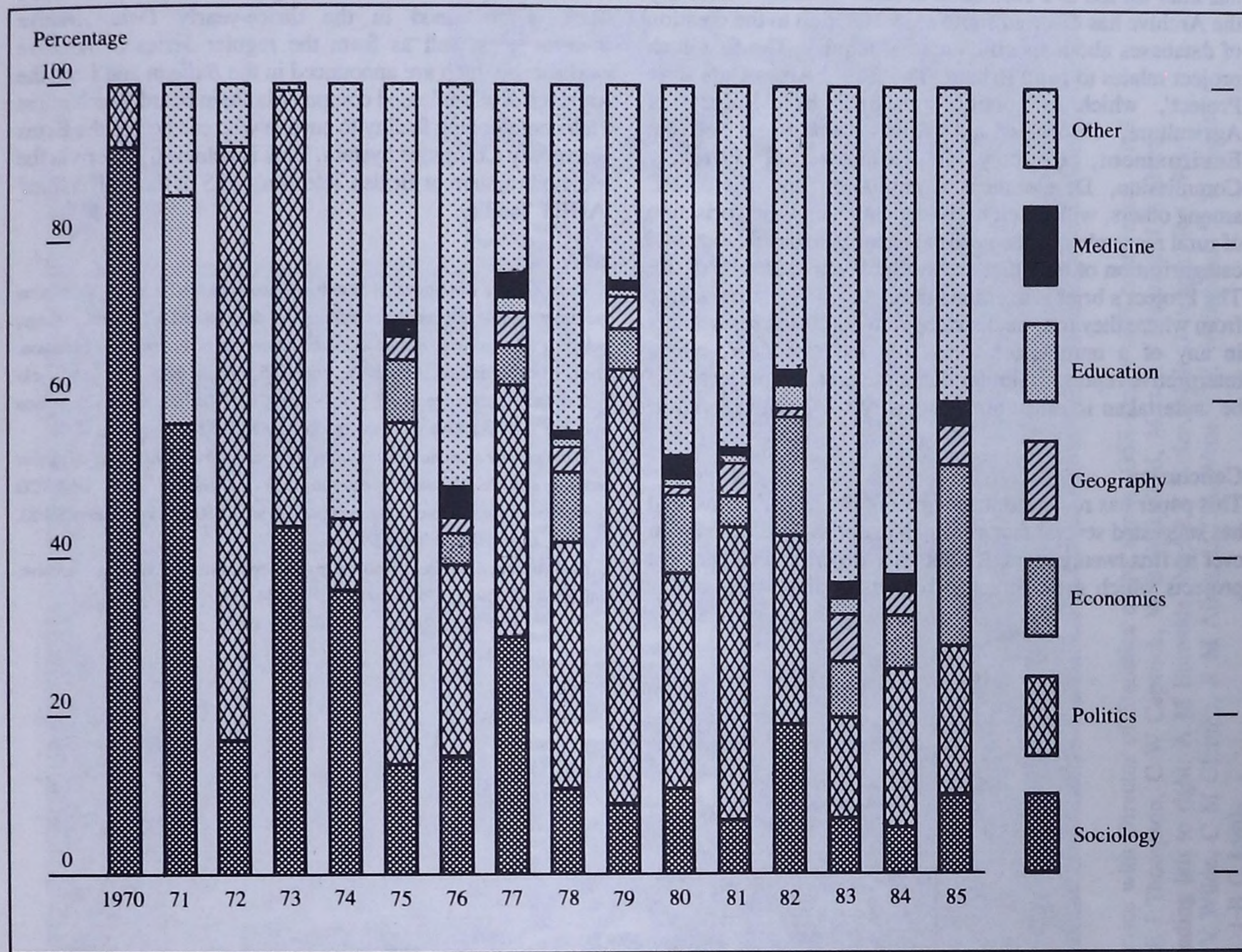
The many researchers who rely on the Archive constrain the Archive's freedom to radically alter the course of its work which must continue to be the holding and distribution of computer-readable data for social research. However the Archive's staff are spared boredom by the potential for change offered by the continually evolving computer environment in which they and their clients work. This note will conclude with a brief description of the Archive's current adjustments to five aspects of computer use: (a) on-line information searches (b) distributed access (c) networked file transfer (d) primary and secondary school applications and (e) integrated data bases.

Information Searches

The Archive holds over 2500 discrete data files ranging in coverage from narrowly-defined academic studies through omnibus series of public opinion polls. As the secondary analyst has to locate data points rather than entire studies it is important that a facility be available to permit searches for specific topics contained (and often submerged) within studies. Thus the Archive has 'keyword-coded' its holdings according to their indicator content using a controlled vocabulary developed from the *UNESCO Thesaurus of Social Scientific Terms*². The resulting bibliographic file is held in a computerised information management system and supports interactive inquiry sessions.

Figure 2 — Usages: by subject

Does not include direct access to Census and CSO data bank



Distributed Access

All data sets are interesting but some interest more people than others! Where there is sufficient user demand for a particular data file, the Archive tries to lodge the file at different computer installations where the file can be held for immediate access by the centre's users. Both the 1981 Small Area Statistics and the Central Statistical Office's Macro-economic Time Series Data Bank are distributed this way. In both cases computer programs that ease the analyst's acquisition of required data are also made available by arrangement with the computer package's authors.

Networked File Transfer

The majority of requested Archive data files is distributed on magnetic computer tape sent through the post. However, large improvements to the communication network that links university computer centres mean that for a large proportion of the Archive's user community there is a more efficient medium available for data transmission. The inter-university JANET network offers a reliable file-transfer system to those who can access JANET; the Archive has installed three gigabytes of disk-resident data (using optical disks) to enable its users to 'download' files directly from the Archive to their

own computer facility without having to cope with magnetic computer tape.

School Applications

Although the Archive concentrates on services to the tertiary educational sector, it has always wanted to make data from its holdings available to schools. Increased computer provision in schools now makes this feasible. Besides its contribution to the BBC's 'Domesday Video Disk', which is described elsewhere in *Statistical News*, the Archive has begun a programme of creating libraries data files on floppy disks which can be used on the micro-computers that are found in most schools. Its first venture, the **Census Data Pack**, combines data extracted from the 1981 Small Area Statistics with a guide to their use in exploratory demographic analyses. Its success has encouraged the Archive to produce similar packages using data oriented to other subjects.

Integrated Data Bases

Traditionally, the Data Archive has been a 'passive' recipient of data collected by others and, indeed, has practiced a demand-led acquisitions policy in which it reacted to user

requests. While this mode of acquisition will continue — it has after all led to a collection of 2500 datasets — recently the Archive has diverted some of its attention to the creation of databases about specific areas of inquiry. The first such project relates to rural Britain. The 'Rural Areas Data Base Project', which is jointly sponsored by Ministry of Agriculture, Fisheries and Food, Department of the Environment, Countryside Commission, Forestry Commission, Development Commission and the ESRC among others, will match its classification and categorisation of rural researchers' data needs to a similar classification and categorisation of data that are available about rural Britain. The Project's brief is to collate these data in a central source from where they may be distributed to interested researchers in any of a number of forms (eg as 'raw data', maps, interpretive reports). Similar data base creation projects will be undertaken in other broad areas of the Archive's remit.

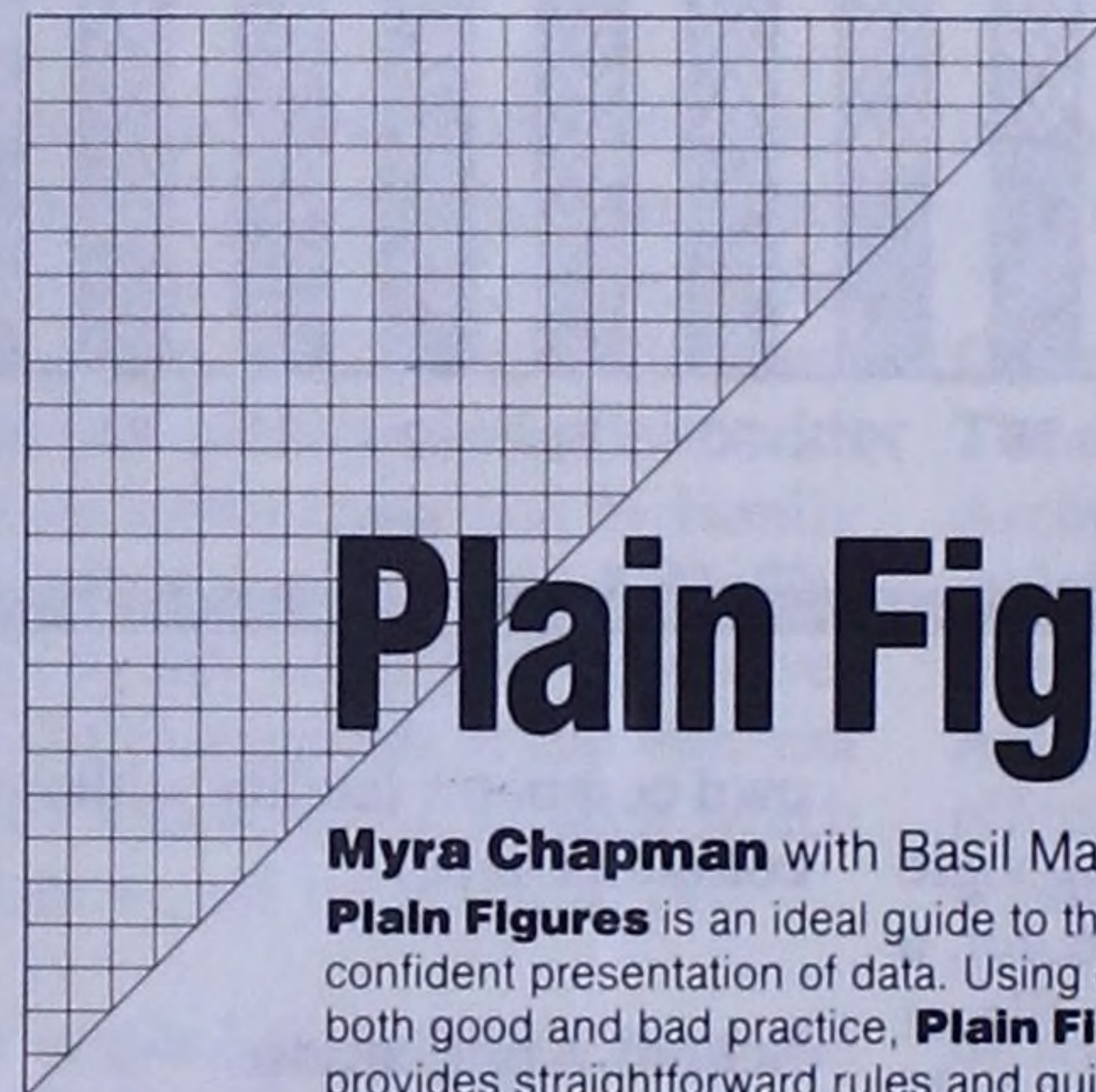
Conclusion

This paper has reviewed the origins of the Data Archive and has suggested several factors which underlay its development over its first twenty years. It went on to describe several recent projects which grew directly from its earlier work.

Space constraints precluded more than a selective review. A more comprehensive continuing overview of the Archive's work is contained in the thrice-yearly *Data Archive Bulletin*³, as well as from the regular series of Archive workshops which are announced in the *Bulletin* and from the Archives newly-released computer bulletin board which offers a teleconferencing facility to anyone who can access the Essex University Computer System. This is achieved either via the telephone system or British Telecom's PSS or the Universities' JANET facility.

References

1. *Data Archive Catalogue*. It comprises two volumes, one an introduction and index volume, the second containing full descriptions of the data holdings, including substantive coverage, technical details and bibliographic information. The hard-cover edition is available, price £65 from the publisher, Chadwyck-Healey Ltd, Cambridge Place, Cambridge CB2 1NR; the paperback edition from the Data Archive (address below), price £37.50.
2. *Bibliography of mono and multilingual vocabularies - thesaurus of subject headings and classification schemes in the Social Sciences*. No 54, UNESCO Reports and Papers in the Social Sciences, price £2.50 net. Published 25/4/83, available from HMSO bookshops.
3. *Data Archive Bulletin*, available free of charge from the ESRC Data Archive, University of Essex, Colchester, Essex CO4 3SQ.



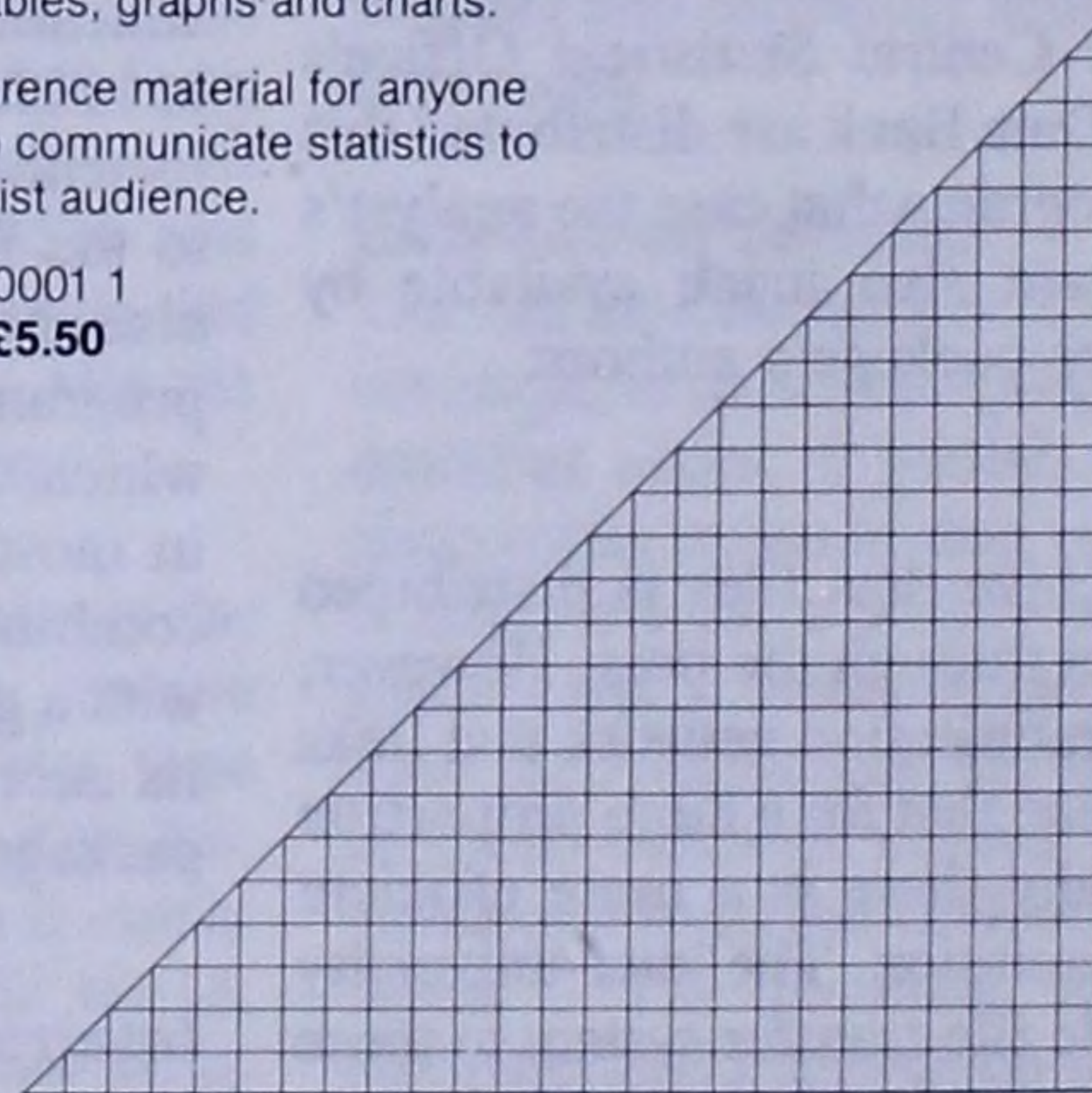
Plain Figures

Myra Chapman with Basil Mahon

Plain Figures is an ideal guide to the clear and confident presentation of data. Using examples of both good and bad practice, **Plain Figures** provides straightforward rules and guidelines on how to show trends, make comparisons, or argue a case with tables, graphs and charts.

Essential reference material for anyone who needs to communicate statistics to a non-specialist audience.

ISBN 0 11 430001 1
108 pages **£5.50**





Mr Jack Hibbert, Head of the Government Statistical Service with Director of Statistics at the annual GSS senior staff conference, Civil Service College, Sunningdale Park. Seated left to right: E J Thompson, C W Capstick, W B Wakefield, Miss R J Maurice, J Hibbert, E H M Price, P D Dworkin, J D Wells, M J Erritt. Standing left to right: A M Burnside, Mrs R J Butler, M P G Pepper, R G Ward, R J Gibbs, C C Finlinson, P J Stibbard, J R Calder, M V Wilde, C M Glennie, R M Allen, D C L Wroe, F E Whitehead, D W Flaxen. Directors unable to attend: A R Thatcher CB, N Harvey, J B C Lytle.

For further information on the surveys listed, the appropriate departmental contact may be obtained from Miss C. MacMillan (01-270 5963), Survey Control Unit, Central Statistical Office, Great George Street, London SW1P 3AQ

New surveys notified June to August 1986

Title	Department	Those approached	Approximate number approached	Location	Frequency
Business and Local Authority Surveys					
Marginal workers - employers survey	DEM	Employers	40	GB	AH
Employers' costs and employment practices	DEM/TSY/DHSS	Employers	500	GB	AH
New workers scheme (NWS) - continuous monitoring survey	DEM	Employers using NWS	8320 pa	GB	C
Apprenticeships in electrical engineering	DEM	Employers	40	E	AH
Community impact of the community programme (CP)	DEM/MSD	CP sponsors	NK	NK	AH
Survey of non-VATed firms (pilot)	DEM	Small firms	1000	S	AH
Survey of the impact of European Community non-nuclear energy research and development programmes in the UK	DEN	Grant recipients	150	UK	AH
Autumn tracking (industrial energy efficiency)	DEN/COI		800	GB	AH
Survey of computerised general practices	DHSS	Doctors	550	GB	AH
Survey of housing co-operatives	DOE/OPCS		700	GB	AH
Local authority stock condition survey 1986	DOE	Local authorities	20	E	AH
Possession actions by local authorities	DOE	Local authorities	401	EW	AH
Racial harassment in local authority housing	DOE		6	E	AH
Fibre optic schemes: questionnaire	DTI		NK	NK	AH
Executive shadows	DTI		6020	UK	AH
Private sector steel scheme evaluation	DTI	Grant recipients	84	UK	AH
Custom-made integrated circuits (IC) study	DTI		75	UK	AH
Study of computing services industry	DTI		20	UK	AH
Review of the market entry guarantee scheme (MEGS)	DTI	Exporters	80	UK	AH
Cost impact management survey: export marketing research scheme	DTI	Exporters	85	GB	AH
Inland origins and destinations of overseas trade	DTP/C&E	Exporters/importers	1000	UK	AH
Concessionary fares scheme	DTP	Local authorities	388	EW	AH
Lorry management project - Worcester city central shopping areas	DTP	Traders and catering establishments	170	E	AH
Lorry management project - 'before' environmental survey	DTP	Traders and local authorities	500	E	AH
Survey of motor dealers	DTP	Motor dealers	1500	GB	AH
Health and safety publicity - small businesses (Nottingham)	HSE	Manufacturers	100	EM	AH
Post experience vocational training needs of engineering companies	IDS/SDA	Training managers	430	S	AH
Rewriting of the employers guide to PAYE (P7)	IR/COI	Employers	200	E	AH
Quantitative literature research	IR/COI	Solicitors and accountants	500	GB	AH
Turkey census	MAFF	Farmers	950	EW	A
Sponsorship on sandwich courses	MSC	Educational establishments	1000	UK	AH
Adult training strategy promotion	MSC/COI	Employers	NK	NK	AH
Evaluation of ASSET teams (assistance towards employment)	MSC	Employers	90	EW	AH
Research study of impact of youth training scheme 2 funding on permanent additional funding for the disabled (PAFD) schemes and units	MSC		10	GB	AH
Small business skill shortage	MSC	Employers	2200	UK	AH
Furniture exports	NEDO	Manufacturers	30	GB	AH
Market research for autoguide-pilot survey	TRRL	Transport managers	1100	SE	AH
Factory building impact study	WO/DBRW	Employers and employees	73	W	AH
CBI quarterly industrial trends survey (mid-Wales)	WO	Manufacturers	70	W	AH
Primary school staffing survey: pilot	WO	Headteachers	10	W	AH
Placement of school leavers with severe learning difficulties (LDS)	WO	Headteachers, career officers and parents	30	W	AH
Household and Individual Surveys					
Marginal workers - household survey	DEM/OPCS		50	GB	AH
Destinations of the long term unemployed when they flow off the register	DEM	Long term unemployed	3750	GB	AH
The labour market for 17-18 year olds	DEM	Youth	1000	EW	AH
Direct mail research test (monergy booklet)	DEN/COI	Adult	2500	GB	AH
Autumn tracking (domestic energy)	DEN/COI	Adults	3000	GB	AH
Anti-heroin double head communication check	DHSS/COI	Young people and parents	100	E	AH
Family expenditure survey follow-up survey of disabled adults	DHSS/OPCS	Disabled	2000	GB	AH
Disability in communal establishments	DHSS/OPCS	Adults	4000	GB	AH
Women's views of maternity services (development of survey methodology)	DHSS/OPCS	Pregnant women and recent mothers	3600	E	AH
Smoking among secondary schoolchildren in 1986	DHSS/OPCS	Pupils	10000	GB	AH
Incomes in and out of work: second DHSS study	DHSS	Unemployed	3600	GB	AH
Temporary accommodation feasibility study	DOE	Homeless households	100	E	AH
Local government ombudsman study - follow-up survey of complainants	DOE	Adults	300	SE	AH
Enterprise zone: survey of shoppers in Swansea	DOE	Shoppers	1000	W	AH
Public attitudes to radioactive waste	DOE	Adults	2000	E	AH

Title	Department	Those approached	Approximate number approached	Location	Frequency
Household and Individual Surveys (continued)					
A21 Tonbridge bypass to Pembury bypass	DTP	Drivers	6800	SE	AH
A47 Gorleston relief road	DTP	Drivers	4800	EA	AH
A40 Western circus junction improvement scheme	DTP	Pedestrians and cyclists	1500	SE	AH
A40 Gipsy corner flyover improvement scheme: origin and destination survey	DTP	Pedestrians	1500	SE	AH
Lorry management project - 'before' environmental survey	DTP	Residents, shoppers and visitors	4000	E	AH
Studies on pedestrian amenity	DTP	Pedestrians and householders	7900	E	AH
A6 towns Rushden and Higham Ferrers, Finedon and Burton Latimer	DTP	Drivers	11500	EM	AH
A39 Wadebridge bypass 1986	DTP	Drivers	4000	SW	AH
A27 Polegate bypass	DTP	Drivers	7000	SE	AH
Comparison of living conditions of Bangladeshis in council accommodations	HOME/CRE	Householders	250	SE	AH
Ethnic police and prison officer recruitment advertising research	HOME/COI	Asians, Caribbeans and Africans	170	E	AH
Violence against women - booklet research	HOME/COI	Women	64	E	AH
Dietary survey of infants aged 6-12 months	MAFF	Mothers	600	GB	AH
National dietary survey of adults	MAFF/OPCS	Adults	2000	GB	AH
Royal Air Force computer game research	MOD/COI	Males 11-19 yrs	1800	GB	AH
Navy officer films research	MOD/COI	Male 'O' and 'A' level students	120	E	AH
Restart qualitative research	MSC/COI	Adults	100	ES	AH
Restart quantitative research (Plymouth and Stoke)	MSC/COI	Adults	1600	E	AH
Restart qualitative research stage 2	MSC/COI	Long term unemployed	60	E	AH
Enterprise allowance scheme - omnibus stage 4	MSC/COI	Unemployed	675	GB	AH
Restart qualitative research stage 3	MSC/COI	Adults	55	E	AH
Restart qualitative research stage 4	MSC/COI	Long term unemployed	28	SE	AH
Enterprise allowance scheme qualitative research (exploratory)	MSC/COI	Unemployed	108	GB	AH
Restart tracking research	MSC/COI	Adults	5400	GB	AH
Evaluation of ASSET teams (clients study)	MSC	Disabled	360	EW	AH
Youth training scheme qualitative research amongst opinion leaders	MSC/COI		30	UK	AH
Assessment of experimental 'tourist route' signposting	SDD	Drivers	NK	S	AH
Motorcyclist training research	TRRL	Motorcyclists	600	GB	AH
National motorway publicity campaign	TRRL	Drivers	3600	E	AH
Survey of generated bus travel in concessionary fares schemes	TRRL	Passengers	2500	GB	AH
The effect of withdrawal of suburban bus services	TRRL	Passengers and householders	500	SE	AH
Peak spreading in London	TRRL	Commuters	700	SE	AH
Disturbance from traffic nuisance - time of day effects	TRRL	Householders	1000	E	AH
Exeter urban cycle route	TRRL	Adults	2000	SW	AH
Stockton urban cycle route 'after' survey	TRRL	Adults and children	800	N	AH
Survey of demand for wheelchair - accessible bus services - phase 2	TRRL	Disabled	300	ES	AH
Market research for autoguide - pilot survey	TRRL	Drivers	2200	SE	AH
Study of pedestrian road crossing accident causation	TRRL	Accident victims and witnesses	160	WM	AH
The consequences of differences in bus service levels - follow up 2	TRRL	Passengers	65	E	AH
Monitoring the 1985 Transport Act - case studies of public transport users	TRRL	Passengers	NK	GB	AH
Welsh house condition survey 1986	WO	Householders	22200	W	AH

Erratum: In *Statistical News* no 74 a number of Household and Individual Surveys were incorrectly listed under the Business and Local Authority heading.

LIST OF ABBREVIATIONS

Locations		General	
E	England	NK	Not Known
EA	East Anglia		
EM	East Midlands	Frequency	
ES	England and Scotland	A	Annual
EW	England and Wales	AH	Ad Hoc
GB	Great Britain	C	Continuous
N	North		
S	Scotland	Departments	
SE	South East	C&E	HM Customs and Excise
SW	South West	COI	Central Office of Information
UK	United Kingdom	CRE	Commission for Racial Equality
W	Wales	DBRW	Development Board for Rural Wales
WM	West Midlands	DEM	Department of Employment
		DEN	Department of Energy
		DHSS	Department of Health and Social Security
		DOE	Department of the Environment
		DTI	Department of Trade and Industry
		DTP	Department of Transport
		HOME	Home Office
		HSE	Health and Safety Executive
		IDS	Industry Department for Scotland
		IR	Inland Revenue
		MAFF	Ministry of Agriculture, Fisheries and Food
		MOD	Ministry of Defence
		MSC	Manpower Services Commission
		NEDO	National Economic and Development Office
		OPCS	Office of Population Censuses and Surveys
		SDA	Scottish Development Agency
		SDD	Scottish Development Department
		TRRL	Transport and Road Research Laboratory
		TSY	HM Treasury
		WO	Welsh Office

Recently available statistical series and publications

The following publications containing social statistics have recently, or will soon become available during the October to December quarter of 1986. Unless otherwise specified, copies may be purchased from Her Majesty's Stationery Office. A list of release dates of economic series is published monthly in *Economic Trends*.

Department of Health and Social Security

The Department of Health and Social Security produce regular monthly and quarterly statistical series on such topics as unemployment benefit, Child benefit and Sickness, invalidity and injury benefits. Extracts and summaries for these series are eventually published in *Social Security Statistics*.

Further information can be obtained from:

Mr K.A. Fitch
Department of Health and Social Security
Room A2111
Newcastle-upon-Tyne NE98 1YX
Telephone: Tyneside (091) 2797373

Statistical Bulletin No 1/86: *Mental illness hospitals and units in England: Schizophrenia Statistics 1981-84* (Price £1.00 net).
Statistical Bulletin No 2/86: *NHS Hospital Activity Statistics for England, 1974/1985* (Price £1.00 net)

Available from:

DHSS Information Division
PO Box 21
Canons Park
Government Buildings
Honeypot Lane
Stanmore
Middlesex HA7 1AY
Telephone: 01-952 2311

Welsh Office

Farm Accounts in Wales 1984/85
Welsh Housing Statistics No 6 1986
Welsh Hospital Waiting List Bulletin 1986: No 2
Commercial and Industrial Floorspace Statistics: Wales No 7 1986
Mental Health Statistics for Wales No 6 1986
Environmental Digest for Wales No 2 1985
Welsh Agricultural Statistics No 8 1986
Digest of Welsh Statistics No 32 1986
Welsh Local Government Financial Statistics No 10 1986

The above publications are available from:

Publications Unit
Economic and Statistical Services Division
Welsh Office
Cathays Park
Cardiff CF1 3NQ
Telephone: 0222-82 5054

Home Office

The following statistical bulletins are announced:

Betting licensing statistics, Great Britain, June 1985 — May 1986
Offences of drunkenness, England and Wales, 1985
Statistics on the operation of the prevention of terrorism legislation, 3rd quarter 1986
Reconvictions of those given probation orders
The operation of certain police powers under the Police and Criminal Evidence Act 1984, 2nd quarter 1986 and 3rd quarter 1986
Control of immigration statistics, 3rd quarter 1986
Liquor licensing statistics, 1985-86
Waiting times in magistrates' courts, February 1986 and June 1986
Sentencing of those arrested in connection with incidents of serious disorder September/October 1985

The following Home Office publications are announced:

Criminal statistics, England and Wales, Supplementary Volumes
Probation statistics, England and Wales, 1985
Fire statistics, United Kingdom, 1985

Statistical bulletins and Home Office publications are available from:

Home Office
Statistical Department
Lunar House
40 Wellesley Road
Croydon
Surrey, CRO 9YD

The following Command Paper is announced:

Criminal Statistics, England and Wales, 1985. Published by HMSO and available from the addresses given on the back cover.

Department of Education and Science

The following statistical bulletins are announced:

11 / 86 — *Students From Abroad in Great Britain 1973 to 1984*
12 / 86 — *Aspects of School Leavers CSE/GCE Examination Performances*
13 / 86 — *Statistics of Schools in England — January, 1985*
14 / 86 — *Student Numbers in Higher Education — Great Britain — 1979 to 1986*

These bulletins are available from:

Department of Education and Science
Statistics Branch
Room 1/28
Elizabeth House
York Road
London SE1 7PH

Department of Transport

Transport Statistics Great Britain 1975-1985 (Annual)
(HMSO price £17.50)

Road Accidents Great Britain 1985 The Casualty Report
(Annual) (HMSO price £7.20)

Business Monitor MA8 Nationality of Vessels in United Kingdom Seaborne Trade 1983-85 (Annual) (HMSO price £10.50)

Port Statistics 1985 (Annual) (Price £25.00)

Available from: British Ports Association
Commonwealth House
1-19 New Oxford Street
London WC1A 1DZ

Waterborne Freight in the United Kingdom 1985 (Annual)
(Price £10.00)

Available from: Marine Transport Centre
University of Liverpool
4, Cambridge Street
PO Box 147
Liverpool L69 3BX

The following are published by the Department of Transport:

New Motor Vehicle Registrations, Great Britain (86) 32, (86)36, (86) 40, (86) 41 (Statistical Bulletins price £2.00)

International road haulage by United Kingdom registered vehicles — report on 1985 (86) 33 (Statistical Bulletin price £5.00)

Traffic Levels at Selected Sites in London first half 1986 (86) 34 (Statistical Bulletin price £2.00)

The following statistical bulletins are issued on a regular basis:

Quarterly: *Traffic in Great Britain second quarter 1986* (86) 35

Road goods vehicles on roll-on roll-off ferries to mainland Europe second quarter 1986 (86) 37

Road Casualties in Great Britain second quarter 1986 (86) 38

Transport Statistics second quarter 1986 (86) 39

Department of Transport statistical publications are available from:

Publication Sales Unit
Building 1
Victoria Road
South Ruislip
Middlesex HA4 0NZ

Industry Department for Scotland

The following statistical bulletins are available:

C2.1 Employment in the Scottish electronics industry 1979-1985

Copies, price 75p each net, can be obtained from:

Scottish Office Library
Official Publication Sales
Room 2/65
New St Andrew's House
Edinburgh EH1 3TG

Office of Population Censuses and Surveys

Population Trends 46 Winter 1986 (HMSO 1986) (Price £5.00 net)

OPCS Monitors (available free from OPCS Information Branch, St Catherines House, 10 Kingsway, London WC2B 6JP)

Legal abortions, 1985 AB 86B

Legal abortions, 1985: residents of regional and district health areas AB 86A

Rubella-associated terminations of pregnancy, 1982-85 AB 86F

Deaths by birthplace of deceased, 1985 DHI 86/1

Deaths from accidents and violence, 1985 DH4 86/2

Fertility trends in England and Wales, 1975-1985 FMI 86/2

Trends in conceptions to women resident in England and Wales, 1974-84 FMI 86B

Births by birthplace of mother, 1985, local authority areas FMI 86A

Births by birthplace of parents, 1985 FMI 86F

Live births during the first half of 1986 FMI 86/6

Cancer survival 1979-81 registrations MBI 86/2

Recorded internal population movements in the United Kingdom, mid 1984 — mid 1985 MN 86/2

Annual Reference Volumes

Mortality statistics: perinatal and infant (social and biological factors) 1984 DH3 No 17

Birth statistics 1985 FMI No 12

Hospital In-patient Enquiry 1984 main tables MB4 No 25

Census

People in Britain Wallchart No 6: *Workforce* (available from OPCS Information Branch)

Scottish Home and Health Department

The following statistical bulletins are available:

No 5/1985 *Prison Statistics in Scotland 1984*

No 1/1986 *Recorded Crime in Scotland January to June 1985*

No 2/1986 *Recorded Crime in Scotland 1985*

No 3/1986 *Homicide in Scotland 1980/1984*

No 4/1986 *Criminal Proceedings in Scottish Courts 1984*

Copies of the above bulletins may be purchased (price 75p post paid) from:

The Library
Official Publication Sales
Scottish Office
Room 2/65
New St Andrew's House
Edinburgh EH1 3TG
Telephone: 031-556 8400 Extension 5901

Department of Employment

Employment Gazette, which is published towards the beginning of each month, regularly contains recent data and time-series on employment, unemployment, earnings, prices, family expenditure, tourism and other indicators. Subjects of recent articles have included: International comparisons of industrial disputes, Industrial stoppages in 1985, Unemployment flows and durations and profit sharing and employee share ownership in Britain.

Employment Gazette is published monthly by Her Majesty's Stationery Office, price £3.25 per issue. Annual subscription inclusive of postage is £35.00

Department of the Environment

Local Government Financial Statistics, England 1984-85

Housing and Construction Statistics, Great Britain, 1975-1985

Housing and Construction Statistics, June quarter 1986

Part 1, No. 26 and March quarter 1986, Part 2, No. 25

Local Housing Statistics, England and Wales, July 1986,

No. 78 figures for 1986 first quarter

Commercial and Industrial Floorspace Statistics,

England 1982 - 1985, No. 14

Digest of Environmental Protection and Water Statistics,

1985, No. 8

The above publications are available from Her Majesty's Stationery Office:

1983-based estimates of numbers of households, England, 1983-2001.

Land Use Change in England, Statistical Bulletin (86)1, figures for 1985

The above publications are available from:

Department of the Environment
Publications Sales Unit
Victoria Road
Building 1
Ruislip
Middlesex HA4 0NZ
Telephone: 01-845 1200 Ext 200

The following information is issued in press notices on a regular basis:

Monthly: *Housebuilding, construction new orders, building new orders, building materials and components, brick and cement production, and new orders by type of work.*

Quarterly: *Construction output and employment, planning applications and decisions, renovations.*

Half yearly: *Homeless households.*

Annually: *Slum clearance.*

Further information is available from:

Department of the Environment
SPPG
Room P1/001
2 Marsham Street
London SW1P 3EB
Telephone: 01-212 5985

Scottish Education Department

Statistical Bulletins on the following subjects:

Pupils and Teachers in Education Authority Primary and Secondary Schools

Placing Requests in Education Authority Schools

Provision for Pre-School Children

Pre-Service Teacher Training

School Leavers

The Social Work Services Group of the Scottish Education Department have published the following bulletins:

Residential Accommodation 1985

Staff of Social Work Departments, 1985

Copies of the above bulletins may be purchased (price 75p post paid) from:

The Library
Official Publication Sales
Scottish Office
Room 2/65
New St Andrew's House
Edinburgh EH1 3TG
Telephone: 031-556 8400 Extension 5901

POPULATION AND VITAL STATISTICS

Population Trends

The latest edition of *Population Trends*, the quarterly journal of the Office of Population Censuses and Surveys (OPCS), was published in September and contains the following articles:

One-parent families in Great Britain

In this article, John Haskey of OPCS Population Statistics Division, examines various sources of information on one-parent families in order to estimate their number and characteristics. Evidence suggests that in 1984, the latest year for which statistics are available, there were approximately 940 thousand one-parent families in Great Britain.

The mortality of agricultural workers: using the thirteenth decennial occupational mortality study

The Registrar General for England and Wales has produced an analysis of mortality by occupation related to the population at each Census since 1851. Earlier this year the latest study was published, analysing mortality in the years 1979-80 and 1982-83 (see *Statistical News* 73.27). This article by Michael McDowall of OPCS Medical Statistics Division, outlines the coverage and scope of the study and then illustrates some of its possible uses by considering the mortality of agricultural workers using this data.

Marital condition estimates 1971-85: a new series

Population estimates for England and Wales by sex, age and marital condition have been revised to incorporate a change in the definition and information from the 1981 Census. This article, by Janet Sparks of OPCS Population Statistics Division, outlines the method used and describes the extent of the revisions and their effects on marriage, divorce and birth rates. Changes in the marital composition of the resident population between 1971 and 1985 are also briefly discussed.

Trends in first, second, third and later births

The rapid increase in the proportion of births in England and Wales which are illegitimate, from nine per cent in 1975 to nineteen per cent in 1985, has meant that information obtained from birth registration about birth order (that is first, second, third births, etc. within marriage) has become increasingly misleading as a guide to the overall measure of true birth order (regardless of legitimacy). In this article, Barry Werner of OPCS Population Statistics Division gives an account of a method in which information from the General Household Surveys of 1979 to 1982 was used to derive estimates of true birth order for an historical series of statistics, compiled from birth registrations for the period 1938-85. Examples of applications of the estimated true birth order statistics are given for period and cohort analyses of fertility.

The most densely populated areas of England and Wales

Local authority areas are too large a unit to define the most densely populated localities satisfactorily. So in this article by John Craig of OPCS Population Statistics Division

aggregations of wards and of five kilometre sided grid squares are used. The topics examined include the extent and shape of the high density areas; their populations and hence the most populous areas; the comparative variations as the size of the areas are increased; and changes between 1971 and 1981 in the populations of these areas.

Reference

Population Trends 45 Autumn 1986 (HMSO 1986) (Price £5.00 net)

Birth statistics

The 1985 annual report on birth statistics was published in September by the Office of Population Censuses and Surveys. It contains a commentary on fertility trends during 1985 and for the period 1975-1985 and trends in conceptions from 1974 to 1984. It includes also detailed analysis of births by month and quarter of occurrence, legitimacy, age of parents, number of previous liveborn children, duration of marriage, multiple births, area of usual residence of mother, place of confinement, the countries of birth of both parents, and the social class of the father. New tables introduced this year show jointly registered illegitimate births (according to whether parents gave the same or different addresses of usual residence at registration) by age of mother; total period fertility rates by birthplace of mother; conceptions to women resident in regions of England and Wales and the estimated female population by age and marital condition.

Reference

Birth statistics 1985 Series FM1 No 12 (HMSO 1986) (Price £8.00 net)

Infant and childhood mortality statistics

The Office of Population Censuses and Surveys recently published the seventh report on the statistics produced from stillbirth records and from the linkage of infant death records to the corresponding birth records. The volume looks at infant and perinatal deaths which occurred in 1984.

Only a limited amount of information about the parents of the deceased infant is available from death registration but information from birth registration, some of which is confidential, includes age of parents, number of legitimate children, social class of parents (legitimate births only), country of birth of parents, institution of birth and whether the baby was a singleton or not. Since 1975 infant death records have been linked to the corresponding birth records to obtain these social and biological statistics. This report presents statistics on these aspects together with cause of death, region of residence, and birthweight.

Deaths of infants have been separated into five groups, which are not mutually exclusive: stillbirths, perinatal deaths (stillbirths and deaths occurring in the first week of life), neonatal deaths (occurring in the first 28 days of life), postneonatal deaths (occurring at ages over 28 days and under one year) and infant deaths (occurring in the first year of life).

Reference

Mortality statistics: perinatal and infant (social and biological factors) 1984 Series DH3 No. 17 (HMSO 1986) (Price £5.80 net)

English Life Tables No. 14, 1980-82

The English Life Tables, which are calculated by the Government Actuary after each decennial census have just been published. Crude rates of mortality were derived by dividing the deaths in the three calendar years 1980-82 by an 'exposed to risk' derived from the population estimates for 30 June 1980, 1981 and 1982 assuming that the estimates were an age and sex specific function of time. An appropriate adjustment was made to the 'exposed to risk' for ages around 60 to allow for the uneven incidence of births during and after the First World War and deaths in this age-group during 1980-82. These crude rates of mortality do not run smoothly from age to age, for several reasons, and were replaced by a series of graduated rates, which, while forming a smooth progression over the whole range of ages covered, still preserve the general shape of the mortality curve.

Graduation by cubic splines was carried out, fitting third-degree polynomials to sections of the data, the polynomials being chosen so that they and their first two differential coefficients are continuous at the boundaries of each section. The graduations cover the age range 2-92 (men) 2-95 (women). Rates at the youngest ages were obtained from the records of births and deaths in the years 1978 to 1983 rather than from the census data. The rates for the oldest ages were obtained by extrapolation from the spline graduation by a formula assuming that the limiting age for each sex is 113. As well as the usual life tables constructed from single sex mortality rates, there is also a unisex life table for persons assuming that 100,000 persons born are divided in the ratio 106 to 100 between males and females, and that the resulting male and female populations develop in line with the respective single sex life tables.

In general, mortality improvement between 1971 and 1981 was greater than during the previous decade. Infants and children showed the most striking improvement, the 1980-82 rates being only two-thirds of those ten years previously. The decline in mortality at the working ages averaged about fifteen per cent: by retirement age it was about fifteen per cent for men and five per cent for women. At age 75 women's mortality was again about fifteen per cent lower in 1980-82 than 1970-72, slightly better than that for men, but the improvement fell to about five per cent for the very elderly of either sex. Mortality rates at ages 22, 27, 32 and so on were calculated for each sex and for each marital condition. Mortality rates of the divorced at present appear to be lower at many ages (particularly at the working ages) than those of either the single or widowed. Among the elderly the usual sequence of mortality rates in ascending order married: single: widowed: divorced still occurs although here again the mortality rate of those divorced is quite close to that of the widowed (and has overtaken that of spinsters and widows between 60-75).

Monetary tables will be provided in the form of three microfiche showing the value of payments depending on survival or death at rates of interest from two to ten per cent per annum.

Reference

English Life Tables No. 14, OPCS, DS No. 7 (HMSO 1986) (Price £4.10 net) ISBN 0 11 691067 4

Registrar General Scotland: annual report

The *Annual Report* for 1985 was published in August 1986. The Report is divided into sections with corresponding tables, covering population and vital statistics; deaths; stillbirths and infant deaths; life tables; population changes, estimates and projections; natural increase and migration; marriages; divorces; and fertility. Also covered are some aspects of the work of the General Register Office (GRO); and alteration of boundaries in some regional and local government areas, 1985.

GRO produces a number of detailed additional annual tables to supplement the statistics published in the *Registrar General's Annual Report* and in the four-weekly *Vital Statistics Return*. These tables are listed in the *Annual Report* and are obtainable, on payment of a fee, from the General Register Office for Scotland, Vital Statistics Branch, Ladywell House, Ladywell Road, Edinburgh EH12 7TF, Telephone: 031-334 0380 Ext 243.

Reference

Annual Report of the Registrar General Scotland No. 131 1985 (HMSO Edinburgh) (Price £12.50 net) ISBN 0 11 493340 5

Vital Statistics (Scotland)

Vital statistics tables relating to the second quarter of 1986 appeared in the Registrar General's *Vital Statistics Return*, Weeks 37 to 40/86.

A paper on the following topic has appeared in a recent issue (Weeks 25-28, 1986) of the *Vital Statistics Return*: 'Illegitimate births in Scotland, 1970-85'

Data on Occupational Mortality in Scotland is now available from GRO(S) as part of the Great Britain Occupational Mortality Study. This covers 550 occupations and 170 causes of death using information from the 1981 Census of Population and from the registration of deaths.

The *Vital Statistics Return* is obtainable every four weeks for an annual subscription of £20.00. The order form is obtained from:

The Publications EO
General Register Office for Scotland
Vital Statistics Branch, Ladywell House
Ladywell Road, Edinburgh EH12 7TF

For further information please telephone: 031-334 0380 Ext 243.

Registrar General Northern Ireland: annual report

The sixty-second edition of the *Annual Report* covering 1983 was recently published. The Report contains sections on population, marriages, births, deaths, migration, administration, meteorology and life tables. Many tables include a run of years. For 1983 figures are given in more detail with a breakdown into District Council Areas for some tables. There are also some comparative statistics for Northern Ireland, England and Wales, Scotland and the Irish Republic.

Reference

Registrar General Northern Ireland Annual Report 1983 No. 62 (HMSO Belfast 1986). Available only from HMSO Bookshop, Belfast, price £14.70 net. ISBN 0 337 07359 7

SOCIAL STATISTICS

Family Expenditure Survey (FES) 1985

Summary expenditure results from the 1985 FES were published in **Labour Market Data** section of *Employment Gazette* for September 1986. An Article is due to appear in the December edition which will illustrate some aspects of household finances as shown in the 1985 Report which is scheduled for publication at about this time.

Reference

Employment Gazette HMSO, September 1986 (Price £3.25 net)

DHSS low income families tables 1983

Tables showing the number and characteristics of families receiving supplementary benefit and those not receiving supplementary benefit but with income less than 40 per cent above supplementary benefit level are published in alternate years, and the tables for 1983 are now available. The tables provide breakdowns by family type and economic status and also contain comparable figures for 1979 and 1981.

Estimates are derived from two main data sources — namely the Family Expenditure Survey and the Department's own annual and quarterly statistical enquiries of supplementary benefit recipients. The 1983 edition of the tables includes an extended set of notes on the derivation of these estimates and their interpretation.

Copies of the tables can be obtained free of charge from:

Miss S C Lewis
Department of Health and Social Security
Room A526
Alexander Fleming House
Elephant and Castle
London SE1 6BY
Telephone: 01-407 5522 Ext 6660

Occupational Pension Scheme 1983

A report on the seventh quadrennial survey by the Government Actuary of occupational pension schemes was published in September 1986.

The survey introduced a major innovation in sampling techniques for this type of enquiry, through the use of the General Household Survey (GHS). Further information was obtained from a sub-group of the respondents to the GHS enabling a survey of their employers to be carried out by the Government Actuary's Department.

Special precautions had to be taken to ensure that the identity of the GHS respondent remained unknown outside the Social Survey Division of OPCS, but it proved possible to obtain further information about their pension schemes for a large proportion of the 4794 respondents to the GHS in 1983 who said they were members of schemes. In many cases pension scheme rule booklets and accounts were obtained from the employers or scheme managers. The fact that this information could be linked to a large representative sample of the population greatly increased its reliability as an overall measure of scheme coverage, benefits and finance.

The report runs to 100 pages and includes over 70 tables. There is an appendix on the statistical methods used and the

response rates obtained, which exceeded two-thirds in the private sector and 96 per cent in the public sector.

Reference

Occupational Pension Schemes 1983, Seventh Survey by the Government Actuary. (HMSO 1986) (Price £5.00 net) ISBN 0 11 700861 3

Regional Trends 21: amendments

The following amendments should be made to the 1986 edition of *Regional Trends* published by HMSO in July 1986.

Page 13, 2nd paragraph, 2nd sentence

Amend to read: 'Total personal incomes per head and personal disposable income fell respectively from 93 per cent and 94 per cent of the United Kingdom average in 1983.'

Page 17, 4th paragraph, last line

Delete: '1982 and'

Page 27, 2nd column, last paragraph, 3rd line

Delete: 'Scotland'

Insert: 'the North'

Page	Line	Column	Delete	Insert
38	Suffolk	5	26	27
"	Greater London	7	5.9	8.9
"	Hertfordshire	5	36	37
"	Surrey	8	27.1	21.1
"	Greater Manchester	6	10.9	12.9
83, Table 6.2	North	2	22.0	20.0
88, Table 6.12	Rest of South East	1	138.7	188.7

Page 150, 2nd column, 3rd line

Amend 'handicapped children' to read 'children with special educational needs'.

Reference

Regional Trends 21 1986 Edition (HMSO) (Price £17.50 net) ISBN 0 11 620153 3

Homicide in Scotland 1980 - 1984

This bulletin analyses statistics on homicides recorded by the police in Scotland in the years 1980 to 1984. Amongst other information given, the outcomes of proceedings, locations of homicides, relationships between victims and accused persons and motives and methods, are detailed.

For details of the availability of this bulletin see the Recently Available Section.

Scottish household projections — 1983-based

Statistical Bulletin HSIU No. 23, issued by the Scottish Development Department in July, contains household projections produced by the Scottish Development Department for selected future years. Detailed projections for Scotland and Regions and a summary of the projections for Districts showing the number of households and the average household size are shown.

The household projections have been developed by applying trends in household formation observed in the 1971 and 1981 Censuses of Population to the mid-1983 based population projections prepared by the Government Actuary's Department and the General Register Office for Scotland.

The projections should not be treated as forecasts but as indicative of what might happen if past trends in household formation were to continue. The household projections are one of the components used by local authorities and the Scottish Development Department in the assessment of housing needs. An Annex contains statistical notes and a detailed description of the methodology upon which the projections are based.

Statistical Bulletins, price 75p can be obtained from:

Scottish Office Library
Publications Sales
Room 2/65
New St Andrew's House
Edinburgh EH1 3TG
Telephone: 031-556 8400 Ext 5901

HEALTH

Hospital In-patient Enquiry

The latest results from the Hospital In-patient Enquiry, a continuous survey on a one-in-ten sample of patients in all National Health Service hospitals in England excluding psychiatric hospitals and departments, were published in August. The Main Tables volume for 1984 consists of a set of tables on microfiche.

This publication amplifies and complements the Summary Tables published in May and contains statistics of in-patient spells, discharge rates, waiting times, duration of stay and use of beds analysed by diagnosis, hospital department and region of treatment, source of admission, surgical operations and type of accident and by sex, age, marital status and area of residence of the patient.

The Hospital In-patient Enquiry is organised jointly by the Department of Health and Social Security and the Office of Population Censuses and Surveys. The statistics it provides serve both medical and administrative purposes, being used in, for example, the planning of hospital buildings, organising services and allocating resources, the surveillance of trends in hospital care and as background data for research projects.

Since 1982 these Hospital In-patient data relate to a sample of patients treated in England only and not, as formerly, England and Wales. Information on data available for Wales can be obtained by writing to the Welsh Office.

References

Hospital Inpatient Enquiry 1984 main tables Series MB4 No. 25 (HMSO 1986) (Price £10.00 net)

Hospital Inpatient Enquiry: summary tables 1984 Series MB4 No. 24 (HMSO 1986) (Price £6.20 net)

Schizophrenia

This Department of Health and Social Security statistical bulletin, published on 23 June 1986, is the first to deal specifically with the subject of schizophrenia. It presents, for people with schizophrenic psychoses, detailed information about admissions to and discharges from mental illness hospitals and units in England for 1984, with trends over the period 1981-84.

Reference

Mental illness hospitals and units in England: Schizophrenia Statistics 1981-84. DHSS Statistical Bulletin No 1/86 (Price £1.00 net)

NHS Hospital Activity Statistics

The latest available statistics on hospital activity in 1985 are presented in the context of trends over the period 1974 to 1985. Statistics on in-patient cases, day-cases, out-patient attendances, bed availability and in-patient length of stay are presented (where appropriate) for the acute, geriatric, maternity, mental illness and mental handicap specialty groups.

Reference

NHS Hospital Activity Statistics for England 1974/85 (Price £1.00 net)

National and Regional Summaries for 1985

The annual booklet containing statistics on many aspects of hospital activity by Regional Health Authority and by specialty will soon be available. Figures will cover the calendar year 1985 and are based on DHSS SH3 returns received from Health Authorities. (Price to be announced.)

Statistical bulletins are available from:

DHSS Information Division
P O Box 21
Canons Park
Government Buildings
Honeypot Lane
Stanmore
Middlesex HA7 1AY
Telephone: 01-952 2311

EDUCATION AND THE ARTS

Department of Education and Science statistical services

Department of Education and Science Ministers have responsibility for university education in Great Britain, and further and higher education and schools in England. The Department's Statistics Branch has two Divisions, one dealing with statistics (including projections) of public sector higher and further education, international comparisons, and finance; the other dealing with statistics (including projections) on schools, teachers, pupils, school leavers and examinations. Liaison takes place regularly with other Education Departments and other Statistical Information bodies, such as the Central Statistical Office, University Grants Committee, Department of Employment and the Office of Population Censuses and Surveys.

Further and higher education statistics are mainly collected via the Further Education Statistical Record (FESR). This computerised system allows a high degree of flexibility in analysing the annually collected data about each student in further and higher education (outside the universities) in England. The data can be analysed by level of course (advanced and non-advanced), local education authority origin, age and sex of each student, type of qualification aimed for, and mode of attendance. The Department publishes an annual volume of such statistics, entitled *Statistics of Education: Further Education*. Similar statistics about university students are available from the Universities' Statistical Record (USR).

The Department publishes a wide range of statistics on the characteristics of schools in England. These statistics are derived from *ad hoc* surveys, and from returns submitted by schools in January every year, and provide information on

pupil and teacher numbers; courses of study and size of classes on the day of the census. Another annual volume entitled *Statistics of Education: School Leavers, CSE and GCE* analyses school leavers, examination achievements and destinations.

Statistics on full-time teachers in maintained, assisted and grant-aided schools and establishments of further education are published annually in a volume entitled *Statistics of Education: Teachers in Service*.

Financial information is summarised by purpose, type of institution and source, together with detailed data on student awards, both in terms of numbers and expenditure. This is likewise published annually, in a volume entitled *Statistics of Education: Finance and Awards*.

Statistics for the education systems in England, Wales, Scotland and Northern Ireland are assembled to illustrate the size and nature of the educational task throughout the four countries and to facilitate international comparisons. These are published annually for the Department by Her Majesty's Stationery Office. A *Digest of Statistics of education in England* has been produced, presenting time series of the most sought after statistics in around thirty tables.

Details of the price and availability of the above publications were given in *Statistical News* 74.28.

Unpublished tables can be made available on payment, the cost depending on whether the tables are readily available or whether they have to be specially designed and produced.

The Department also issues Statistical Bulletins regularly, and the most recent issues are listed in the Recently Available Section.

Pre-Service Teacher Training

This statistical bulletin gives information on the number of students on pre-service teacher training courses at Colleges of Education in Scotland between 1981/82 and 1985/86. Some information is given for students who graduated from a concurrent teacher training course at the University of Stirling and were granted exceptional admission to the General Teaching Council's register with a Teaching Qualification (Secondary Education).

School Leavers

Published annually, this bulletin gives information about the numbers of pupils leaving school in Scotland in 1976-77 (the first for which the current school leaving arrangements applied) to 1984-85 inclusive. A separate bulletin will be published later giving details of the Scottish Certificate of Education qualifications held by school leavers.

For details of the availability of these Bulletins see the Recently Available Section.

Facts about the Arts 2

Facts about the Arts 2 edited by John Myerscough, builds on the achievement of its predecessor volume (M. Nissel (ed.), *Facts about the Arts*, Policy Studies Institute, London, 1983), which brought together for the first time in a single publication a selection of available statistics about the arts in Britain. It is intended as a worktool for those concerned with the arts, both inside and outside government, those involved in the day-to-day administration and promotion of the arts as well as those with the power to influence and make

more general decisions on the financing and planning of the arts.

The publication containing 352 pages, 225 tables, 60 charts and 5 maps, is more than just a comprehensive source of information on the arts, covering museums and galleries, the performed and visual arts (including the crafts), literature, film and broadcasting. It is also a major review of the current state of health of the arts in England, Scotland and Wales, giving particular emphasis to regional variations.

Reference

Facts about the Arts 2 (Policy Studies Institute) (Price £17.95). Obtainable from all good bookshops, or from the Institute, 100 Park Village East, London NW1 3SR, Telephone: 01-387 2171

MANPOWER AND EARNINGS

The labour force in 1985

An article in *Employment Gazette* August 1986, presents estimates of the labour force of Great Britain in mid-1985, based on information from the 1985 Labour Force Survey. Trends in the size of the labour force and the level of activity rates since 1971 are reviewed and the changes between 1984 and 1985 compared with the previous projections. The implications of the new estimates for likely subsequent changes in the size of the labour force are also discussed.

Reference

Employment Gazette (HMSO Monthly) (Price £3.25 net)

Industrial stoppages in 1985

An article in the August issue of the *Employment Gazette* looks at stoppages of work due to industrial disputes in 1985, recent trends, and discusses the coverage of the statistics. The tables show the numbers of stoppages, workers involved and working days lost, analysed by industry, region, cause and size of dispute. It also contains details of prominent disputes of 1985.

Reference

Employment Gazette (HMSO, August 1986) (Price £3.25 net)

Young people leaving school

An item in the 'Employment Topics' section of the September issue of *Employment Gazette* gives revised estimates and projections from 1983-84 to 1990-91 of the numbers of young people leaving school in Great Britain analysed by sex and distinguishing those leaving to become available for employment. The summary results presented show only a slight revision from those given in an earlier article published in August 1985.

Reference

Employment Gazette (HMSO, September 1986) (Price £3.25 net)

Workforce

In August the Office of Population Censuses and Surveys (OPCS) published the sixth wallchart in the series illustrating some of the main findings from the 1981 Census of Population and specially prepared for schools and colleges with sixth forms, GCE 'A' level and undergraduate courses.

People in Britain: 6 — Workforce shows the distribution of people employed in manufacturing industries and in finance, government and other services in 1981, changes in the proportions of people employed in industry groups and in occupation groups since 1971, the proportions in different occupation groups that are women, the types of jobs mainly held by women and the proportions of people economically active in each occupation group out of employment in 1981.

The *Workforce* wallchart features large maps of Great Britain, produced by the OPCS computer mapping method, developed specially to handle and plot data for single and aggregated census enumeration districts: for the particular variable being illustrated, each point represents the combined value of those enumeration districts with centres falling within a 2.5 x 2.5 kilometre square. The point may represent a single enumeration district or a group of enumeration districts.

Five wallcharts, *People in Britain: 1 — Population*

People in Britain: 2 — Pensioners

People in Britain: 3 — London

People in Britain: 4 — Housing

People in Britain: 5 — Travel to work

are already published.

Reference

1981 Census wallchart *People in Britain 6 — Workforce* is available only from OPCS Information Branch, St Catherines House, London WC2B 6JP. In England, Wales and Scotland the wallchart is being offered free to schools and colleges with sixth forms, GCE 'A' level, Scottish Certificate of Education Higher grade or undergraduate level courses.

Additional copies of the chart can be purchased from OPCS Information Branch at the above address, price £2.00 each (inclusive of VAT), cash with order.

Electrical engineering industry since 1978

A recent publication by the Engineering Industry Training Board (EITB) gives a sector profile on trends in manpower and training in the electrical engineering industry since 1978.

There are notes and tables on: occupational structure; female employment; regional distribution of employment in the industry, employment by size group; employment in different sectors of the industry; craft and technician recruitment and training; sector economic assessment and trade.

Reference

Sector profile, trends in manpower and training in the electrical engineering industry since 1978, RM85 07 (EITB) (Price £10.00)

Enquiries about this publication should be made to the EITB, 54 Clarendon Road, Watford, Herts WD1 1LB

Copies of this publication may be obtained from: EITB publications, P O Box 75, Stockport, Cheshire SK4 1PH

Careers of young women technicians

Professional engineers and technician engineers and technicians in engineering have traditionally been drawn almost exclusively from the male half of the population. However, in the mid-1970s it was forecast that industry's need for high quality engineers and technicians would increase in

response to the spread of new technology. In addition the falling birthrate meant that the supply of young people coming onto the labour market would be shrinking and the talents and abilities of girls could no longer be ignored.

Following initiatives by the Engineering Industry Training Board (EITB) the Technician Scholarship Scheme for young women ran from 1976 to 1978. In 1979 a grant scheme was funded by the Manpower Services Commission (MSC).

In 1984 the MSC agreed to fund a one year research project to investigate the progress of some of the young women technicians after their training, subsequent employment and career planning. The results of that research have now been published by the EITB.

Reference

Careers of young women technicians, a report of studies of the progress of young women technicians recruited under the EITB Scholarship and Grant Schemes, OPI5, price £10. Summary of the findings, RSU 03, price £2.50. Both available from: EITB Publications, P O Box 75, Stockport, Cheshire SK4 1PH, Telephone: 061-480 5285.

Armed Forces Pay (Service medical and dental officers)

A Supplement to the Fifteenth Report of the Review Body on Armed Forces Pay was published in July 1986 and deals with the pay of Service medical and dental officers. A full list of the Review Body's reports is in Appendix 1.

Recommended military salaries for the ranks of Captain to Colonel, appropriate at 1 July 1986 are in Table 1; paragraphs 24-26 include details of recommended salaries for Brigadiers, pre-registration medical practitioners and cadets; and paragraphs 27-32 are concerned with medical additional pay. (Equivalent salary levels for 1 June 1985 are in Appendix 4.) The Government has announced acceptance of the recommendations.

The results of a comparative evaluation of pension benefits carried out by the Government Actuary are given in Appendix 2. A summary of key manning statistics for the defence medical services from 1983 to 1986 is given in Appendix 3.

Reference

Review Body on Armed Forces Pay, Service Medical and Dental Officers, Supplement to Fifteenth Report Cmnd. 9866 (HMSO July 1986) (Price £3.60 net)

AGRICULTURE AND FOOD

Output and utilisation of farm produce in the United Kingdom (1979 - 1985)

The latest edition of *Output and Utilisation of Farm Produce in the United Kingdom* was published on 15 August 1986. The booklet contains statistics of all major agricultural and horticultural products and gives details of the quantity and value of the output sold off United Kingdom farms. In addition, for most commodities, details of imports and exports are included and an analysis is given of the utilisation of total supplies.

The booklet is available from MAFF (Publications), Lion House, Willowburn Trading Estate, Alnwick, Northumberland, NE66 2PF, price £6.50.

Agricultural censuses and surveys

Irrigation of Outdoor Crops — England and Wales

The results of the special enquiry held in February 1985 into the practice of irrigation on farms in England and Wales during 1984 with comparison figures for 1982 were published in MAFF Statistics 148/86 on 23 June 1986.

Cereals Production — England and Wales — 1985 Harvest

The final 1985 harvest estimates of area, yield and production of wheat, barley and oats in England and Wales were given in MAFF Statistics 157/86 published on 1 July 1986.

Separate tables giving the distribution of area and yield at holding level as well as regional analyses were also included in this publication.

Cereals Stocks Survey — England and Wales

The results of the sample surveys of on-farm stocks of home grown wheat and barley for April and May were published in MAFF Statistics 159/86 on 4 July 1986.

Annual Estimates of Crop Production — 1985 Harvest

The final 1985 harvest estimates of area, yield and production for principal crops in the United Kingdom, England and Wales and England with comparable figures for 1984, together with the average yield per hectare in the five years 1980 to 1984, were published in MAFF Statistics 174/86 on 28 July 1986.

December 1985 Glasshouse Returns for England and Wales

The results of the December census of glasshouse crops together with details of previous and future croppings in glasshouses of lettuce, cucumbers, chrysanthemums and flower bulbs were published in MAFF Statistics No 199/86 on 19 August 1986.

June 1986 Agricultural Census Results for the United Kingdom and England

Provisional results from the June Censuses held in England, Wales, Scotland and Northern Ireland were combined in this notice to give information for the United Kingdom together with separate figures for England. The results were published in MAFF Press Release No 224 on 21 August 1986.

All the above Statistics Notices may be obtained free of charge from Publications Section, Room A615, Ministry of Agriculture, Fisheries and Food, Government Buildings, Epsom Road, Guildford, Surrey GU1 2LD. Telephone: Guildford (0483) 68121 extensions 577/520.

Provisional results of the Scottish June agricultural census for 1986

The provisional results of the June 1986 Scottish Agricultural Census were published as a Scottish Office Press Notice on 6 August 1986. (Press Notice No 1024/86.)

For further details please contact:

Department of Agriculture and Fisheries for Scotland
Economics and Statistics Unit
Chesser House, 500 Georgie Road
Edinburgh EH11 3AW
Telephone: 031-443 4020

INDUSTRIAL STATISTICS

Business monitors - annual census of production 1984

Readers of *Statistical News* are made aware of the results of the 1984 Census of Production as the Business Monitors become available. The following table lists the monitors published since notification in the last number of *Statistical News*.

<i>Business Monitor Number</i>	<i>Description</i>	<i>Standard Industrial Classification 1980 Group</i>
PA111	Coal extraction and manufacture of solid fuels	111
PA130	Extraction of mineral oil and natural gas	130
PA140	Mineral oil processing	140
PA162	Public gas supply	162
PA210	Extraction and preparation of metalliferous ores	210
PA221	Iron and steel industry	221
PA223	Drawing cold rolling and cold forming of steel	223
PA224	Non-ferrous metals industry	224
PA231	Extraction of stone, clay, sand and gravel	231
PA239	Extraction of miscellaneous minerals (including salt)	239
PA241	Structural clay products	241
PA243	Building products of concrete, cement or plaster	243
PA245	Working of stone and other non-metallic minerals	245
PA247	Glass and glassware	247
PA251	Basic industrial chemicals	251
PA255	Paints, varnishes and printing ink	255
PA256	Specialised chemical products mainly for industrial and agricultural purposes	256
PA257	Pharmaceutical products	257
PA258	Soap and toilet preparations	258
PA259	Specialised chemical products mainly for household and office use	259
PA260	Production of man-made fibres	260
PA311	Foundries	311
PA312	Forging, pressing and stamping	312
PA313	Bolts, nuts, etc; springs; non-precision chains; metals treatment	313
PA314	Metal doors, windows, etc	314
PA316	Hand tools and finished metal goods	316
PA320	Industrial plant and steelwork	320
PA321	Agricultural machinery and tractors	321
PA322	Metal-working machine tools and engineers' tools	322
PA323	Textile machinery	323
PA325	Mining machinery, construction and mechanical handling equipment	325
PA326	Mechanical power transmission equipment	326
PA327	Machinery for printing, paper, wood, leather, rubber, glass and related industries: laundry and dry cleaning machinery	327
PA328	Miscellaneous machinery and mechanical equipment	328
PA329	Ordnance, small arms and ammunition	329
PA330	Manufacture of office machinery and data processing equipment	330
PA342	Basic electrical equipment	342
PA343	Electrical equipment for industrial use, and batteries and accumulators	343
PA344	Telecommunication equipment, electrical measuring equipment, electronic capital goods and passive electronic components	344
PA345	Miscellaneous electronic equipment	345
PA351	Motor vehicles and their engines	351
PA353	Motor vehicle parts	353
PA361	Shipbuilding and repairing	361
PA363	Cycles and motor cycles	363
PA364	Aerospace equipment manufacturing and repairing	364
PA372	Medical and surgical equipment and orthopaedic appliances	372
PA412	Slaughtering of animals and production of meat and by-products	412
PA413	Preparation of milk and milk products	413
PA414	Processing of fruit and vegetables	414
PA415	Fish processing	415
PA419	Bread, biscuits and flour confectionery	419
PA422	Animal feeding stuffs	422
PA423	Starch and miscellaneous foods	423
PA424	Spirit distilling and compounding	424
PA427	Brewing and malting	427
PA428	Soft drinks	428
PA429	Tobacco industry	429

Business Monitor Number	Description	Standard Industrial Classification 1980 Group
PA432	Cotton and silk industries	432
PA436	Hosiery and other knitted goods	436
PA437	Textile finishing	437
PA439	Miscellaneous textiles	439
PA453	Clothing, hats and gloves	453
PA455	Household textiles and other made-up textiles	455
PA461	Sawmilling, planing, etc of wood	461
PA463	Builders' carpentry and joinery	463
PA464	Wooden containers	464
PA465	Miscellaneous wooden articles	465
PA466	Articles of cork and plaiting materials, brushes and brooms	466
PA467	Wooden and upholstered furniture and shop and office fittings	467
PA472	Conversion of paper and board	472
PA475	Printing and publishing	475
PA481	Rubber products	481
PA483	Processing of plastics	483
PA492	Musical instruments	492
PA493	Photographic and cinematographic processing laboratories	493
PA494	Toys and sports goods	494
PA495	Miscellaneous manufacturing industries	495

All 112 Business Monitors in the series have now been published.

Copies of these Business Monitors are available on standing order from Her Majesty's Stationery Office, PO Box 276, London SW8 5DT (telephone: 01-622 3316) or through any Government Bookshop.

Further information on the PA Series of Business Monitors and Censuses generally can be obtained from:

Mr J Dowsell
Business Statistics Office
Government Buildings
Cardiff Road
Newport
Gwent NP9 1XG
Telephone: 0633 222455

Individual monitors or a free brochure describing the full range of monitors with prices and order form may be obtained from:

The Librarian
Business Statistics Office
Government Buildings
Cardiff Road
Newport
Gwent NP9 1XG
Telephone: 0633 222973

Annual census of production 1983

Summary results are now available in Business Monitor PA 1002.

The summary volume includes both establishment tables, which summarise results previously published in separate industry monitors (PA 111-500), and enterprise analyses. The establishment tables show information for 1979-1983 on total sales and work done, cost of purchases, net output, gross value added, employment, wages and salaries, capital expenditure, stocks and work in progress and operating ratios. This information is shown at the three-digit level of the Standard Industrial Classification Revised 1980, a separate table shows a limited range of data at the four-digit level of the classification. The enterprise tables include an analysis of

public and private enterprises, concentration ratios for the five largest enterprises by employment size at three-digit group level, analyses of private sectors' 100 largest manufacturing enterprises defined by size of employment, net output and turnover and information about foreign owned enterprises.

Reference

Business Monitor PA 1002 Report on the Census of Production 1983: Summary Tables (HMSO July 1986) (Price £21.95 net) ISBN 0 11 514469 2

Annual census of production 1984

An article in *British Business*, 26 September 1986, presents a summary of the final results of the 1984 census of production which have been compiled on the basis of the Standard Industrial Classification (SIC) Revised 1980.

There are two tables, the first includes separate estimates for each (two-digit) class of the classification, and the second shows regional results for eight industrial sectors defined in terms of these classes. More detailed information is available in the form of 112 separate industry reports, each of which in general covers one (three-digit) group of the new classification. For 1984 each of these also include a number of tables at the (four-digit) activity heading level.

Information on the PA series of Business Monitors and on the censuses generally can be obtained from the Business Statistics Office, Government Buildings, Cardiff Road, Newport, Gwent NP9 1XG, Telephone 0633 222455.

Reference

British Business (Department of Trade and Industry weekly) (Price £1.25 net)

Housing and construction statistics

Housing and Construction Statistics, 1975-1985 is the seventh edition of this annual reference book designed to provide a broad perspective on developments in housing and construction over the past decade.

There is detailed information for construction on orders and output, labour, structure, materials and investment. For housing there are tables on housebuilding, renovations, energy conservation, slum clearance, stocks of dwellings, household projections, finance and rents and rent regulation.

There are three new tables covering renovations: grant applications and approvals for private owners and tenants, energy conservation by region, and household projections of households by regions 1981-2001 for England and Wales.

Reference

Housing and Construction statistics, Great Britain, 1975-1985 (HMSO 1986) (Price £25 net) ISBN 0 11 751878 6

Stockbuilding: recent trends

Stockbuilding is a particularly volatile component of GDP, because stocks are used as a buffer against fluctuations in supply or demand. An article in *Economic Progress Report* July/August 1986 looks at the role of stocks in a firm's production process, and then reports some recent Treasury research into the causes of changes in stocks. The higher cost of holding stocks in recent years has been an important factor causing firms to economise on them, and may help to make stockbuilding less volatile in the future.

Reference

Economic Progress Report available, free of charge, from Publications Division, Central Office of Information, Hercules Road, London SE1 7DU

UK registrations and deregistrations for VAT 1980-1985

A series of articles in *British Business*, the latest in the issue of 23 August 1985, (see *Statistical News* 71.44), has described the use of VAT information to monitor changes in the United Kingdom business population since 1980. One of the features of this information is that changes can be notified by businesses to Customs and Excise long after they occur.

An article in *British Business*, 19 September 1986, updates estimates for 1980 to 1984 and presents first estimates for 1985. The figures take into account these registrations and deregistrations notified since the previous article was published in August last year and, unlike the figures in that article, include estimated allowances for those registrations and deregistrations yet to be notified (see technical annex to the article).

Since the numbers of outstanding registrations and deregistrations are, naturally, larger for the latest than the earlier years, and allowances for these outstanding items have only been estimated for national totals, estimates for 1985 by region and industrial sector will not be available until the VAT file has been further updated.

Reference

British Business (Department of Trade and Industry weekly) (Price £1.25 net)

Electrical engineering

An article in *British Business*, 5 September 1986, summarises the position of the electrical engineering industry. In 1985, the electrical engineering industry (comprising Classes 33 and 34 of the 1980 Standard Industrial Classification) continued the rapid expansion of the previous three years and was the leading growth area within manufacturing industry. The deficit in the balance of trade in electrical engineering goods was reduced in 1985, reversing a trend apparent since 1980. Employment in the sector is estimated to have fallen slightly.

More recent developments suggest that the early months of 1986 have seen an end to the period of strong growth.

There are nine tables giving details on: summary statistics; index of production; sales; exports; export performance; imports; import penetration; balance of trade; home market sales and employees.

Reference

British Business (Department of Trade and Industry weekly) (Price £1.25 net)

TRANSPORT

Transport Statistics Great Britain 1975-1985

The 1986 edition of *Transport Statistics Great Britain* was published on 23 September. The publication, which was compiled by the Statistics Directorate of the Department of Transport in collaboration with the Scottish Development Department, the Welsh Office and other government departments, is designed to bring together a comprehensive range of statistics relating to transport in order to facilitate informed discussion on transport developments and policies. The content and format of the current issue are essentially the same as those of recent issues. As in 1985, the use of 'camera ready copy' has allowed *Transport Statistics Great Britain* to be published in September, about six weeks earlier than the usual publication date with conventional copy. This

year the publication process has also been extensively computerised allowing the tables to be laser printed instead of word processed which has improved their print quality. Computerisation should also bring substantial cost savings in the medium and long term. The price of the publication, which was reduced last year from £19.50 to £17.50, is still being held at that level.

Reference

Transport Statistics Great Britain 1975-1985 (HMSO September 1986) (Price £17.50) ISBN 0 11 550772 8

Road accidents

Road Accidents Great Britain 1985 - The Casualty Report was published by HMSO on 30 September 1986 for the Department of Transport, Scottish Development Department and the Welsh Office; price £7.20. The publication contained review articles on: road safety publicity, drinking and driving, impact of large motorway accidents, the cost of accidents, pedestrian casualties (comparisons with Japan and the Netherlands), European Road Safety Year, seat belts, motor cycle accidents and casualties, comparison of two wheeled motor vehicle accidents and casualties, casualties on public holidays, casualty seasonality at specific hours, vehicle involvement rates by road class, and nature of injuries.

The main part of the book consists of time series tables and tables relating to 1985. The tables correspond, exactly, in number and content, to tables contained in *Road Accidents Great Britain 1984*. For the first time, the publication process was computerised. The tables were prepared by spreadsheets, the text was word-processed and camera-ready copy was produced by a small laser printer. As a result of computerisation, the book was published two months in advance of the date when *Road Accidents Great Britain 1985* appeared.

Statistical bulletins giving information on road accidents and casualties are published quarterly. Enquiries about these should be directed to:

The Department of Transport,
Room B648,
Romney House,
43 Marsham Street,
LONDON SW1 3PY
Telephone: 01-212 6763

Revised series on heavy goods vehicle numbers and activity

Two recent publications^{1,2} by the Department of Transport on the numbers of heavy goods vehicles and their activity have revised figures giving a consistent series from 1975 to 1985.

A problem arose in 1981 when the Driver & Vehicle Licensing Centre (DVLC) at Swansea was first used as the source for detailed breakdowns of vehicle populations. It was found that the structure of vehicle stock from DVLC records (particularly the number of articulated vehicles) was different from that derived from the operators licensing records which had been used for these breakdowns (though not the totals) up till then. Unfortunately resources had not been available to run the two systems in parallel, so the job of deciding how differences occurred was complicated by real changes between adjacent years. As the vehicle stock figures are used to gross up the results of the Department's main survey of vehicle

activity (the Continuing Survey of Road Goods Transport) the discrepancy had implications for figures on goods lifted and goods moved derived from the survey.

Despite considerable effort no complete reconciliation of the data from the two sources could be made. However, by using a consistent series of stock figures based on unladen weight a link was made to give a reasonably consistent aggregate series by adjusting figures for 1980 and 1981 only - though breakdowns within the aggregate are less soundly based.

The vehicle activity figures were re-calculated by re-running all the programs with the revised weightings so that the data are internally consistent, though the *caveat* about detailed analyses also applies here.

More details of the adjustments made are given in the publications.

1. *Heavy Goods Vehicles in Great Britain 1985*, Statistics Bulletin (86) 14.

2. *The Transport of Goods by Road in Great Britain 1985*, Statistics Bulletin (86) 23.

Both publications are available from: Publications Sales Unit, Department of Transport, Building 1, South Ruislip HA4 0NZ. Telephone: 01-845 1200 Ext 200.

Provisional results of 1985 Survey of International Road Haulage

A Statistics Bulletin published recently by the Department of Transport shows that in 1985 there was little change in traffic from the level reached in 1983 and 1984, which showed a marked improvement over the previous years. The main tables present 1985 results according to several variables. Probably of most interest is the country in which goods were loaded or unloaded. This and the analysis of types of commodity carried are also broken down according to whether the goods were carried on 'own account' or for 'hire and reward'. Provisional information suggests that the proportion of goods carried on 'own account' continued to increase, from 15 per cent in 1984, to 17 per cent in 1985. Later tables examine the United Kingdom regions of loading and unloading of goods and this is also tabulated with commodity types and foreign countries. A list specifying the commodity groups used in these analyses is provided in the Annex. Further details of the commodity classification and the United Kingdom regions used in the survey can be found in the latest annual report of International Road Haulage Survey (IRHS).

A full report on the survey in 1985 will be available later this autumn. This will include a commentary and an analysis of relevant statistics of international road haulage from other sources such as Ports and Customs and Excise. It also gives full details of IRHS methodology.

The statistics are available in Department of Transport Statistics Bulletin (86) 26 - *Provisional results of the 1985 International Road Haulage Survey*, price £5, from:

Publications Sales Unit,
Building 1, Victoria Road,
South Ruislip,
Middlesex HA4 0NZ
Telephone: 01-845 7788 Ext 210

As in previous years, an annual report on statistics of international road haulage will be available later in the year, updating the provisional figures and incorporating analysis of relevant data from other sources. Quarterly statistics of numbers of road haulage vehicles travelling to mainland Europe are also available from the above address.

Inquiries to:

Department of Transport,
STB Division,
Room A203,
Romney House,
43 Marsham Street,
LONDON SW1P 3PY
Telephone: 01-212 3229

Nationality of Vessels in United Kingdom Seaborne Trade 1983-1985

In 1985 United Kingdom flag vessels carried 36 per cent of United Kingdom international seaborne trade by value. This is slightly higher than the share in recent years of 34-35 per cent. The share by weight in 1985 was 23 per cent, unchanged from 1984 but lower than earlier years. These changes have occurred both for dry and wet cargo and for exports and imports. A detailed picture of United Kingdom seaborne trade and the shares carried by ships of different nationalities is given in the recent Department of Transport publication *Business Monitor MA8*.

Processed from information taken from import and export documents, the main analyses in *MA8* present a detailed picture by type of cargo (tanker, dry bulk and other dry cargoes) of the quantity imported or exported by sea in United Kingdom bilateral trade. A detailed list of countries and areas, and the percentage shares carried by certain flags: United Kingdom, European Community (other than the United Kingdom), remaining OECD countries, Liberian and Panamanian, other; and the percentage carried by the bilateral trading partner are shown. Quantities and flag shares are also shown for a selection of commodities, with other tables giving average length of haul and a more detailed list of flags with their percentage carryings by cargo type. Figures in these detailed analyses are shown for a series of three years. Summary analyses give a longer historical run and show amounts and percentage shares in terms of value and tonne-miles in addition to weight of cargo carried.

Since 1985 the Department of Transport has been monitoring the accuracy of flag data in import and export records following the discovery by HM Customs and Excise that errors were being made in the coding. Such errors have been found, on further examination, to be largely self-cancelling but the net effect of them is a possible one to two percentage point overstatement of United Kingdom flag shares. The problem is unlikely to have affected trends over time.

Reference

MA8 - Nationality of Vessels in UK Seaborne Trade 1983-1985 Business Monitor (HMSO September 1986) (Price £10.50) ISBN 0 11 514477 3.

Port Statistics 1985

The latest edition of the annual publication *Port Statistics* has now been published by the Department of Transport and the British Ports Association. This is the sixth such publication

produced since the closure of the National Ports Council and the fourth on the 'mode of appearance' basis.

Port Statistics 1985 provides details of total foreign and domestic traffic through the principal ports of Great Britain by mode of appearance (ie broken into bulk (by commodity), container and roll-on, semi-bulk and conventional traffic). The statistics reveal that 1985 was a record year for overall port traffic, and also reflect the continued effects of the miners' dispute on ports and port traffic in 1985.

The publication contains several new tables, which show the volume and value of Great Britain international trade as well as the number of ship arrivals at principal Great Britain ports, derived respectively from data supplied by Customs and Excise and Lloyds of London. Some graphs have also been included to illustrate certain time-series data.

Port Statistics 1985 has been produced by the Department of Transport and published by the British Ports Association (BPA). Copies are available from the BPA at Commonwealth House, 1-19 New Oxford Street, London WC1A 1DZ. Telephone: 01-242 1200. The price is £25.00 including postage.

Waterborne freight in the United Kingdom 1985

The latest in this series of reports was published jointly by the Department of Transport and the University of Liverpool in October. Previous recent work in this series has updated the benchmark research of 1980, but for 1985, a new benchmark was established involving more detailed surveys of the inland waterways and a fresh analysis of the structure of coastwise shipping movements. The latter was done with the aid of data on ship arrivals provided by Lloyds of London. The report provides estimates of tonnes lifted and tonne-kilometres moved on inland waterways, by coastal shipping and as one-port traffic in 1985. Also included are time series back to 1974. Traffic is analysed by mode of appearance, principal commodities and type of movement. Port groups of origin and destination are given for coastal traffic while for waterways, the analysis is by port group and waterway capacity. Several new analyses, including the distribution of movements by length of haul, are given.

The waterway traffic information updates the 1980 findings (see *Statistical News* 59.41) and supercedes the intermediate year reports for 1981/2, 1983 and 1984 (*Statistical News* 66.55, 69.44 and 73.38). *Transport Statistics Great Britain 1975-1985* (published 22 September 1986) include some provisional results for 1985.

Reference

Waterborne Freight in the United Kingdom 1985 is available, price £10, from the Marine Transport Centre, University of Liverpool, PO Box 147, L69 3BX. Enquiries about this work may also be made of P J Mullock, Department of Transport, Room A201, Romney House, 43 Marsham Street, London SW1P 3PY.

Purchases and sales of ships by the UK shipping industry: 1985

An article in *British Business*, 5 September 1986, shows that the UK private sector shipping industry spent £196 million in 1985, net of disposals, on new and second-hand ships. This was markedly lower than £477m spent in 1984 but the value of new vessels acquired in that year reflected delivery of the new P&O cruise liner *Royal Princess*. However, the value of

deliveries in 1985 was 38 per cent lower than the 1984 figure, excluding the *Royal Princess*. In addition £62m was spent on alterations to existing ships, £25m more than in 1984. The United Kingdom public sector spent £3m on new ships in 1985 compared with £6m in 1984.

Accompanying tables include expenditure of UK private sector shipowners on new and second-hand ships based on time of delivery or sale; deliveries of new vessels/and new orders placed for UK private sector shipowners analysed by country/area of build and type; and vessels on order at 31 December 1985 for UK private sector shipowners — analysis by country/area of build and type. Timing and method of payments are shown in separate tables, also the cost of ships purchased and sold by UK leasing companies based on time of delivery or sale. Gross domestic fixed capital formation by UK shipowners on a national accounts basis and capital expenditure on net payments basis are also given.

A number of amendments to the figures published in the articles were given in *British Business* 10 October (page 35).

Reference

British Business (Department of Trade and Industry weekly) (Price £1.25 net).

HOME FINANCE

1985 Statistics Users' Conference on Financial Statistics: Follow-Up Work

A report of the proceedings of this Conference, held in November 1985, was given in the February 1986 issue of *Statistical News*. This further note summarises how the Central Statistical Office, other government departments and the Bank of England are responding to the range of suggestions made at the Conference for improvements to financial statistics.

It must be mentioned at the outset that official responses to these suggestions are necessarily constrained by the fact that the Government Statistical Service (GSS) exists primarily to serve Government, and is thus subject to restrictions on resources. Such restrictions inevitably limit the amount of effort which can be devoted to suggestions for the expansion of existing statistics or to new areas of statistical inquiry.

Against this background, some forty issues for consideration have been identified from the transcript of the Conference proceedings. They fall into three broad areas - quality, presentation and development - although some issues contain elements of two or even all three of these identifying characteristics. An attempt has been made to assess whether the suggestions are desirable and might be implemented readily; whether they are more difficult but worth pursuing, and finally those which were probably either impractical or unlikely to prove cost-effective. Finally, a rough order of priorities for the work has been drawn up. In this, generally greater weight is being given to quality improvements than to issues of presentation and development.

On quality, there was widespread concern at the size and frequency of revisions and the uncertain accuracy of many series. Improving quality is part and parcel of the regular work undertaken on financial statistics, to which the Conference has given an added impetus. Where such improvements require collecting additional data, they need to be considered carefully. Examples where extra information is being sought

include the activities of securities dealers, transactions in sterling commercial paper and developments in the secondary mortgage market (which is still in its infancy). Elsewhere, work is in hand with a view to extending the quality labelling of series appearing in *Financial Statistics (FS)*, with the initial outcome of this exercise likely to appear in the annual *Financial Statistics Explanatory Handbook* next February.

An important improvement to quality, however, is looked for from the work in hand to produce reconciliation accounts for the statistics of financial stocks and for those of financial flows. Information available from the two sets of data is currently being assembled for an extensive range of financial instruments. Results of the exercise should start appearing around the middle of next year. This work should facilitate improved articulation of the accounts and also lead to better presentation generally.

On presentation, where some changes have already been made (see final paragraph), consideration is being given to an annual *Financial Statistics Supplement* giving long runs of data. The Central Statistical Office databank provides an obvious alternative source for such data and this aspect is also being investigated, together with how marketing the data could be improved. Attention is being given to proposals on the treatment of breaks in series and to explaining major revisions to data. For those series subject to large revisions the possibility of introducing ranges is under consideration. Improved documentation to facilitate understanding and interpretation is intended in all these areas.

Not surprisingly, a majority of suggestions fall within the development group. For a number, work is already in hand, in particular the possibility of improving information on international and domestic trade credit and on banks' interest rates; to make more timely the publication of the results of the Department of Trade and Industry's analysis of companies' annual accounts; and the extension of banking statistics to include certain off-balance-sheet items, which is being considered in conjunction with the requirements for supervisory information. Definitional and coverage matters are also being examined, for example, the statistical coverage of the Isle of Man and the Channel Islands; the problems which might emerge as the activities of financial institutions become more diverse, perhaps pointing to more emphasis on obtaining information about financial instruments; and whether companies should be asked to record a split of their activity between United Kingdom and overseas in their annual accounts. A Working Party of the Accounting Standards Committee is looking at proposals for segmental reporting which would require large companies to show a breakdown of a number of important financial variables in their accounts. There was also a suggestion that national accounts and company accounts data be made more compatible. A further article on the relationship between these sources, following one which appeared in the August 1984 issue of *Economic Trends* comparing companies' rates of return, might be produced.

A number of proposals sought additional information, for example, on total credit or in respect of gilts, and on a sector analysis of time deposits and interest-bearing sight deposits. All these will be considered in the light of Government needs and the burden on respondents. The idea of a financial trends survey was also raised, but this was seen as a major

undertaking and unlikely to command high priority. Requests for further disaggregation of published data - for example in respect of unincorporated businesses, and of the industrial and commercial company sector into manufacturing, oil and other - would probably require substantially more data collection and are therefore not considered viable at present. Finally, there are two proposals related to the compilation and quality of financial data, both of which have been and are still being examined. These are the greater use of annual company accounts data, and the suggestion that the residual errors and balancing items in the financial accounts be allocated over the components. While further progress is envisaged on the former, the latter remains a complex exercise involving, in addition, analysis of the information making up the current and capital accounts. For the time being, at least, work is aimed at the reduction of such errors.

Some changes have already been made. In particular additional information relating to yields on government securities and building society interest rates now appears in *Financial Statistics*. Several other changes are well advanced. While work so far has proceeded largely within existing arrangements for developing official statistics, consideration is being given to establishing a User Group to assist progress and to provide a forum for continuing user reaction. Further reports will be published, as appropriate.

Further information is available from:

Mr I G Richardson
Central Statistical Office
Great George Street
LONDON SW1P 3AQ
Telephone: 01-233 7331

Reference

Financial Statistics (HMSO monthly) (Price £7.50 per copy, annual subscription including handbook £90.00)

Financial Statistics Explanatory Handbook 1986 Edition (HMSO February 1986) (Price £6.95 net)

Economic Trends (HMSO monthly) (Price £9.50 net, annual subscription including supplement £115)

Inland Revenue Statistics 1986

The 1986 edition of *Inland Revenue Statistics* contains statistics on direct taxation, personal and company incomes, capital gains, wealth and property valuations. There are extensive notes on each subject.

An historical breakdown of net receipts of taxes and numbers of taxpayers is given as well as estimates of the direct costs of allowances and reliefs relating to the taxes administered by the Inland Revenue. The income statistics include data on employment incomes and the incomes of companies.

There are sections showing investment under the Business Expansion Scheme which contains figures not previously published and on capital transfer tax, capital gains tax and development land tax. Estimates of the distribution of personal wealth are also given.

Statistics on stamp duties, rateable values, agricultural land prices and conveyancing complete the set of main tables.

The Appendices show the rates of the various taxes and include tables of income tax thresholds at current and constant prices.

Reference

Inland Revenue Statistics 1986 (HMSO September 1986) (Price £10.50 net)

Calendar month money and banking statistics

The banks' monthly statistical returns have now moved from the middle to the end of the month.

Before October 1986 monthly banking and monetary statistics were collected for the third Wednesday of each month (second Wednesday in December). The middle of the month has traditionally been considered more neutral and representative than the end of the month. A related advantage has been thought to lie in reporting on the same day of the week in each month.

The drawback to mid-month reporting was that the monthly banking statistics were not compatible with many other economic and financial statistics, in particular with those for public finance. Moreover, mid-monthly figures for those monetary aggregates which include components other than notes and coin and items from the banks' balance sheets had to be partly estimated.

Since 1982, the 90 or so largest banks, accounting for about 90 per cent of the banks' contributions to £M3, have provided an abbreviated end-calendar-month statistical return. The end-month figures are subject to different influences. For these banks, however, the end-calendar-month series do not appear to be more volatile than mid-month series. Once this was established, discussions with the banks began (in autumn 1984) with a view to making the change to end-months in the interests of consistency with other economic and financial data.

It was agreed to implement the change this autumn. The last mid-month returns (from the 450 or so institutions which report monthly) related to 17 September. End-quarter reporting is unaffected by the change, so the whole monetary sector of some 650 institutions reported as usual at end-September. The next monthly returns related not to 15 October, but to 31 October. Provisional monetary statistics for calendar October were published on 20 November; full money and banking figures, including revised estimates of the provisional figures, will be published on 1 December.

While the change of reporting dates has no significant implications for monetary policy, it does pose some short-term problems for the measurement and assessment of the monthly monetary statistics. Calendar-month series for the main monetary aggregates and counterparts have been constructed back to June 1982 on the basis of the abbreviated end-month returns and the full end-quarter statistics. However, for all but MO (which is calculated as an average of Wednesdays in the calendar month) these series are estimates based on limited information, though made fully consistent with the established quarterly series. Interpretation of current monthly statistics is bound to be more uncertain for some time. Moreover, a temporary difficulty arises with M3. The building societies initially cannot submit detailed figures promptly enough for M2 to be calculated at the same time as the other aggregates; it will therefore be published a month in arrears until early 1987. PSL2 (which also includes some building society data) will not be held up but may for a time be more liable to revision than previously.

In advance of publication of the new figures, the Bank released estimates of the main monetary series for calendar months between mid-1982 and mid-1986, together with an account of how they were compiled and an explanation of other aspects of the change. The material will be reproduced in the December *Bulletin*.

The change in reporting dates carries implications for the timing of the *Bulletin*. The opportunity will be taken to change the month of publication, to suit the flow of economic and financial information; from 1987, the *Bulletin* will be published in the first half of February, May, August and November.

The Bank's *Quarterly Bulletin* (£7.50 per copy) may be obtained from:

Bulletin Group
Economics Division
Bank of England
Threadneedle Street
LONDON EC2R 8AH

OVERSEAS FINANCE

British Aid Statistics 1981-1985

The 1986 edition, published on 29 August, follows the same format as the previous three issues and gives a wide range of statistics on aid to developing countries over the last five years.

Gross public expenditure on aid is analysed by type eg project aid, debt relief, technical co-operation; by terms — grants or loans; and by recipient — bilateral split by income groups, continents, Commonwealth membership etc and multilateral split by institution.

Detailed tables give a breakdown of expenditure on aid to each developing country and of manpower and training provided in terms of man years.

Comparisons are also given with aid flows from other countries and one table summarises net flows to developing countries from the private sector including direct investment, private export credits and grants by voluntary agencies. The introduction includes a run of figures for total expenditure over ten years, at both current and constant prices.

Reference

British Aid Statistics 1981-1985 (Price £5.75 including postage) can be obtained from The Library, Overseas Development Administration, Abercrombie House, Eaglesham Road, East Kilbride G75 8EA.

Overseas transactions by film and television companies

An article in *British Business*, 19 September 1986 (the latest in an annual series) shows that overseas net earnings of both film and television companies from the production and distribution of cinematographic film and television material in 1985 at £165m, were £50m higher than in 1984. Net overseas earnings have now increased four-fold from the £41m in 1981. Of particular significance was the increase in the net overseas earnings of the television broadcasting companies from £1m in 1984 to £28m in 1985, reversing a downward trend which had started in the late seventies. The net overseas earnings of film companies also rose significantly from £112m to £136m over the same period following a substantial increase in receipts.

The article contains tables giving, overseas transactions in respect of film and television material 1974-1985, overseas transactions in respect of film companies by area and category of company 1984 and 1985 and by type of transaction. Overseas transactions of the BBC and IBA programme contractors by area are also given for 1980-1985. Notes and definitions are included.

Reference

British Business (Department of Trade and Industry weekly) (Price £1.25 net)

Overseas earnings

A *British Business* article of 15 August 1986 presents figures of overseas royalty transactions in 1984 obtained for the invisibles account of the UK balance of payments from the Department of Trade and Industry's overseas transactions inquiry for that year. More detailed figures from the inquiry will be published by HMSO later this year in *Business Monitor MA4, Overseas Transactions 1984*. The results of the inquiry for 1983 appeared in *British business*, 24 May 1985. Transactions covered include royalties, licences, patents, trade marks, designs, copyrights, manufacturing rights and the like. Overseas transactions relating to film and television rights are not included here, but figures for 1984 were published in *British business*, on 30 August 1985.

The inquiry does not cover all companies with royalty transactions, though estimates are made for all firms in the first table. The other tables report only the transactions of companies responding to the inquiry. These concerns account for nearly 80 per cent of total receipts and over 90 per cent of total payments.

Reference

British Business (Department of Trade and Industry weekly) (Price £1.25 net)

INTERNATIONAL

International publications

The following have recently been published and are available from HMSO:

United Nations

National accounts statistics, government accounts and tables, 1983, price £35 net

National accounts statistics, main aggregates and detailed tables, 1983, price £85 net

United Nations, Department of International Economic and Social Affairs

Population studies

94 Determinants of mortality change and differentials in developing countries; the five-country case study project, price £19.50 net

95 Consequences of mortality trends and differentials, price £21.00 net

United Nations, Department of International Economic and Social Affairs, Statistical Office

Demographic yearbook 1984, price £80.00 net

Industrial statistics yearbook 1983, Vol 1; General industrial statistics, price £50.00 net

Industrial statistics yearbook 1983, Vol 2; Commodity production statistics 1974-1983, price £55.00 net

Socio-economic differentials in child mortality in developing countries, price £29.00 net

Statistical papers, series D, *Commodity trade (by sea) statistics*.

Vol 29-32, No 2, Maritime transport study 1982, analysis by type of goods moved during 1979-1982 between regions of the world, price £38.00 net

Statistical papers, series M79, *National accounts statistics: compendium of income distribution statistics*, price £45.00 net
United Nations, Economic and Social Commission for Asia and the Pacific

Statistical yearbook for Asia and the Pacific, price £55.00 net

United Nations, Economic Commission for Europe

Annual Review of the Chemical Industry 1984, price £30.00 net

Bulletin of statistics on world trade in engineering products 1984, price £38.00 net

United Nations, Economic Commission for Latin America and the Caribbean

Statistical yearbook for Latin America 1984, price £40.00 net

Statistical yearbook for Latin America and the Caribbean 1985, price £27.00 net

UNESCO

UNESCO statistical digest 1985, price £5.50 net

Eurostat

ACP, basic statistics 1986, price £5.80 net

Demographic statistics, 1986, price £10.60 net

Economic accounts: agriculture, forestry 1979-1984, price £6.30 net

Employment and unemployment, 1986, price £11.20 net

Eurostat news: special edition 1986, protection of privacy, automatic data processing and progress in statistical documentation, price £7.70 net

Farm structure: methodology of Community surveys, price £9.70 net

Fisheries statistical yearbook 1986, price £5.60 net

Gas prices, price 7.40 net

General Government accounts and statistics: 1970-1983, price £13.80 net

Regional accounts ESA, detailed tables by branches 1982 (with correction slip), price £7.70 net

National accounts ESA, detailed tables by sector: 1970-1983, price £15.80

Regions: the Community's financial participation in investments 1984, price £3.50

Review: 1975-1984, price £9.70

Structure of earnings, principal results 1978/79, Vol 10, United Kingdom, price £18.70 net

The European orchard, 1977 and 1982 surveys, analyses and forecasts, price £4.00 net

World Health Organisation. Regional Office for Europe

Investigating practices in health manpower planning: report on a country case study, price £3.25 net

Food and Agriculture Organisation (FAO)

Economic and social development papers, 59 Population and labour force in rural economics, price £7.00 net

Forestry paper 19; yearbook of forest products 1973-1984 (FAO statistics series 67), price £22.0 net

World agricultural statistics: FAO statistical pocketbook, 1985, price £4.00 net

International Monetary Fund

Direction of trade statistics yearbook 1986, price £10.00 net

Fiscal policy in the smaller industrial countries 1972-1982 by Gisli Blondal, price £12.50 net

Occasional paper 45, Switzerland's role as an international financial centre, by Bendicta Vibe Christensen, price £7.50 net

World economic and financial surveys, *Primary commodities, market developments and outlook (dated May 1986)*, price £10.00 net

OECD. Department of Economics and Statistics

Balances of payments of OECD countries, 1965-1984, price £12.00 net

Labour Force Statistics 1964-1984, price £19.50 net

Maritime transport 1985, price £8.00 net

National accounts, detailed tables 1972-84, Vol 2, price £29.50 net

Readers should note that publications of international organisations are subject to price changes.

PUBLICATIONS

Plain Figures

Plain Figures, a Civil Service College handbook published in September by HMSO, is a book about communicating what the figures say. It provides rules and guidelines on how to present figures so as to highlight the important patterns. The basic message is keep it simple: use concise tables with heavily rounded numbers, use simple statistical graphs and always explain, in words, what the figures say.

The book is a useful companion piece to Sir Ernest Gowers' *Complete Plain Words*, a new edition of which was published in May 1986.

Plain Figures is designed for anyone who needs to use data to show trends, point out important changes or argue a case - economists, statisticians, financial analysts, market researchers, managers and management consultants will all find it invaluable. No mathematical techniques are included: in many ways the book is elementary. But sophisticated analysis of data is useless if the results are not understood. The authors explain, in easy style, that by using familiar graphs and simple tables effectively, patterns in data become clear, the results of analysis are trusted and a message can be got across to almost any level of reader.

The authors of *Plain Figures* are Myra Chapman of the Management and Personnel Office, Cabinet Office, who was a statistics lecturer at the Civil Service College while working on the book, and Basil Mahon, a chief statistician in the Department of Health and Social Security. Many of the examples used in the book - to illustrate both good and bad practice - come from *Social Trends*, one of the best known government statistical publications.

Reference

Plain Figures (HMSO 1986) (Price £5.50) ISBN 0 11 430001 1

Treasury working papers

Economic Progress Report July/August 1986 contains details of the following papers.

Working Paper No 42, *Treasury Models for Analysing and Forecasting Debt Interest*, by Margaret Peirson, John Clark and Kevin Darlington, is now available. It reports the results of a recent review and overhaul of the models used in the Treasury for analysing and forecasting debt interest. It describes the structures of these models, and their inter-relationships. It gives estimates of their performance, and of the effect of changes in the assumptions used. The Working Paper is No. 89 in the Government Economic Service series.

Working Paper No 43, *HM Treasury Macroeconomic Model 1986*, by C L Melliss, will be available shortly. It describes the Treasury Macroeconomic Model made available to the public at the beginning of 1986, and updates and replaces the *HM Treasury Macroeconomic Model Technical Manual* issued in 1982, with a Supplement in 1984. It presents a simple stylised version of the models, highlighting its theoretical characteristics and the nature of its key relationships. It illustrates the overall properties of the model with simulation results. It does not contain the full details of individual equations and variables, but these are available separately in *HM Treasury Model Documentation* and *HM Treasury Equation Listing*. The Working Paper is No. 90 in the Government Economic Service series.

Another new Treasury Working Paper, No 44, *A Model of Wage Bargaining*, by Penelope A Rowlatt, will also be available shortly (No. 91 in the Government Economic Service series). The paper sets out a theoretical model of wage bargaining, and estimates an equation for the growth of earnings in the UK manufacturing sector; this equation might at a later date form part of the *Treasury Macroeconomic Model*.

Copies of these working papers are available from Committee Section, HM Treasury, Parliament Street, London SW1P 3AG, subject to a handling charge of £1 per copy. Cheques, money and postal orders should be made payable to HM Treasury.

Bank of England quarterly bulletin

In addition to regular articles providing commentary on recent developments in the United Kingdom and world economies and on domestic and international financial markets, the September issue of the Bank's *Quarterly Bulletin* contains the following items:

Recent trends in real interest rates

This article updates and enlarges on an article published in the December 1983 *Bulletin* which showed how real short-term rates of interest had changed since the mid-1950s in the United Kingdom, Germany and the United States. The article first discusses the measurement of real interest rates and then considers how real short-term rates of interest have changed in the three countries mentioned since 1983. Finally, estimates of recent trends in real medium-term rates of interest are presented.

International banking in London, 1975-85

This article, drawing on the comprehensive statistical record available since the mid-seventies, examines the growth and development of the international banking markets in London

in the ten years to the end of 1985. London retained a leading position in the global international banking market - particularly the eurocurrency market - during the period, despite the growth of the 'offshore' banking centres and the emergence of International Banking Facilities in the United States. The range of countries whose banks are represented in London is now exceptionally wide. But despite the extensive representation, most of the international business continues to be booked by a small number of large banks. The market share of Japanese banks has risen sharply in the eighties, making them the largest single bank group in London, while the American banks, less concerned in recent years with growth than with profitability, have reduced their involvement as measured by aggregate balance sheet share.

Employment creation in the United States and the United Kingdom

This article summarises the results of research carried out in the Bank which assesses the contributions of a range of factors, including the real wage and its determinants, that may account for the greater buoyancy of employment in the United States than in the United Kingdom over the period 1974-85. The results suggest that in both countries an increase in the real wage has a depressive effect on employment and that the most important means by which the sizable increase in US labour supply over this period was drawn into employment, was through reducing real wage growth.

The market in foreign exchange in London

This article, which is an expanded version of a press notice released by the Bank on 20 August 1986, sets out the results of the first comprehensive statistical survey of the volume and composition of foreign exchange business transacted by banks and brokers operating in London. The survey which was conducted by the Bank in March of this year shows that banks' average total turnover, adjusted for double counting of transactions with other banks in the United Kingdom, totalled US\$90 billion a day.

The external balance sheet of the United Kingdom: developments to end-1985

This article, which continues an annual series, describes the main changes in external assets and liabilities recorded in 1985. It also examines the impact of valuation effects on the external balance sheet; offers estimates of the full returns on assets and liabilities, which are compared with recorded flows of interest, profits and dividends; and examines some of the factors affecting the banks' contribution to the current account of the balance of payments.

Performance of large companies

This article, also one in an annual series, presents updated and revised estimates of company performance, by main industry group, derived from the published accounts of large companies: new estimates of corporate gearing are also reported.

The Bank's *Quarterly Bulletin* (£7.50 per copy) may be obtained from:

Bulletin Group
Economics Division
Bank of England
Threadneedle Street
LONDON EC2R 8AH

National Institute Economic Review

The latest edition of the *National Institute Economic Review* includes the following items:

Services for manufacturing

This short note by George F. Ray attempts to answer the question of whether, and to what degree, the decline in manufacturing output in 1973-83 might have been due to a shift of certain activities from manufacturing to services.

Seasonal patterns in the British economy

Applied macroeconomists commonly regard the seasonal variations of the economy as a hindrance rather than a help to the understanding of behaviour. Thus both in commenting informally on economic developments and in the more formal tasks of model-building and forecasting, seasonally-adjusted data are almost invariably used in preference to raw data when both are published. The nature of the patterns displayed by seasonal variation is very little discussed. One purpose of this note by Andrew Britton is simply to describe seasonal variation as it is estimated in some of the official data series, providing some tables which may be useful for general reference. But the aim is not just descriptive. It will be argued that seasonal variations may throw useful light on some controversial issues in macroeconomics.

Measures to reduce youth unemployment in Britain, France and West Germany

In 1980 the unemployment rate (on standardised OECD definitions) for under-25 year-olds was 14 per cent in the United Kingdom, 15 per cent in France and 4 per cent in Germany. This year it is expected by OECD that these rates will be 21 per cent in this country, 31 per cent in France and 9 per cent in Germany. In all three countries special measures have been introduced in an attempt to reverse the trend. This note by D Marsden, C Trinder and K Wagner outlines the circumstances in which this rapid increase in youth unemployment has occurred and then describes the measures taken in each country to combat it.

Stagflation in the United Kingdom since 1970: a model-based explanation

The United Kingdom's economic performance, like that in many industrial economies, worsened in the 1970s after about twenty years of relatively stable and strong growth and low inflation. This article by I D Saville and K L Gardiner investigates to what extent this worsening in performance can be attributed to factors outside the United Kingdom's control

- to world recession - and how far it was the result of domestic policies. Simulations of the NIESR model suggest that about half of the slackening in output growth can be explained by these two sets of factors. Adverse trends in import and export behaviour appear the major behavioural impediment to faster economic growth.

Reference

National Institute Economic Review No. 117, August 1986, available from the National Institute of Economic and Social Research, 2 Dean Trench Street, Smith Square, London SW1P 3HE (Price: annual subscription £45 net or £12.50 net per single issue.)

Economic and Social Research Council (ESRC) Newsletter 58

The Newsletter contains details of 'Open-Door' scheme which is a unique approach to funding research relevant to industry: a five-year research initiative on the 16 to 19 age groups: and the first Corporate Plan of the ESRC listing six key tasks. The following articles are noted: 'The competitiveness of British Industry' by Arthur Francis; 'Research in Industrial Sociology' by Richard Brown; 'The Teaching Company Scheme' by Bill Frost; 'Work Organization Research Centre' established at Aston University, article by Ray Loveridge; 'The Public Acceptance of New Technologies' by Chris Gaswill; 'ESRC's Industry and Employment Committee, by Alan Mercer; 'The Social and Applied Psychology Unit' at Sheffield University by Peter Warr and 'Industrial Relations Research Unit' at Warwick University by Keith Sisson. There are also articles on energy research and communication, latest details on the Data Archive.

The Newsletter is available free, from:

Economic and Social Research Council
Information Office
160 Great Portland Street
LONDON WIN 6BA
Telephone: 01-637 1499

CONFERENCES AND MEETINGS

Royal Statistical Society Study Group on the Government Statistical Service

The following meeting is announced:

Thursday 22 January 1987: 'Investigating population change in small to medium-sized urban areas', presented by: John Edmonds, Department of the Environment, Peter Daly, Halcrow Fox and associates and Peter Congdon and John Shepherd both from Birkbeck College.

The next meeting is on Thursday 12 February 1987.

The meetings take place at 5.00pm and are held in the Manson Theatre of the London School of Hygiene and Medicine, Keppel Street, London WC1.

Statistics Workshop

A statistics workshop is to be held at the University of Warwick on 15 and 16 December. It is being organised by the Library Association/Royal Statistical Society Committee of Librarians and Statisticians.

This two-day workshop has been designed by the Committee of Librarians and Statisticians for librarians, information officers, market analysts - anyone who has the need to increase their knowledge of statistical sources. In three

practical sessions delegates will work through sample enquiries using the statistical publications in the University library. A discussion section led by two experts, a librarian and a statistician will follow each practical section.

The practical and discussion sessions will cover basic statistical concepts and general problems in the use of statistics as well as aiming to broaden delegates' knowledge of and experience in using sources in the fields of business and economic and social statistics.

Delegates may attend on a residential or non-residential basis. A number of places will also be available to delegates wishing to attend on one day only. Bookings and enquiries should be addressed to the Continuing Education Unit at the Library Association, 7 Ridgemount Street, London WC1E 7AE Telephone: 01-636 7543.

GOVERNMENT STATISTICAL SERVICE

Reviews of regular surveys

Annual Retailing, Wholesaling and Motor Trades Inquiries

The Business Statistics Office and the Survey Control Unit of the Central Statistical Office have recently undertaken joint reviews of the annual Retailing, Wholesaling and Motor Trades Inquiries. These reviews were carried out as part of the programme for reviewing all business inquiries which was outlined in *British Business*, 29 April 1983. The reports of the reviews have now been approved by Ministers of the Department of Trade and Industry and hence they provide the agreed framework for the inquiries to be taken over the next five years.

The major recommendation in the report of the review of the Retailing Inquiry is that the pattern of the inquiry should be changed from the present sequence of 'full' and 'slimline' inquiries in alternate years. Over the next five years full inquiries will be conducted only in respect of 1986 and 1990, with a new 'intermediate' sized inquiry in the intervening years.

The reports of the reviews of the Wholesaling and Motor Trades Inquiries recommend that these inquiries should continue in a largely unchanged format. However it is proposed that a more detailed Wholesaling Inquiry should be conducted around the end of the decade, and also that certain additional information should be collected in the 1986 Motor Trades Inquiry.

The report of the review of the Retailing Inquiry is priced at £2.00, whilst the reports on the Wholesaling and Motor Trades Inquiries cost £1.75 each (including postage). Copies are available from:

The Librarian
Business Statistics Office
Government Buildings
Cardiff Road
Newport
Gwent NP9 1XG
Telephone: 0633 222973

Set out below is a list of recently completed category B reviews of surveys to businesses and local authorities. These surveys are subject to an internal departmental review and a report which is monitored by the Survey Control Unit. Any

enquiries concerning a survey or its review should be made to the appropriate departmental contact point given below.

I Surveys to businesses

Quarterly 5% sample survey of building society mortgages

Mr R A Harris Department of the Environment
N1303
SH Division
2 Marsham Street
London SW1P 3EB

Building and civil engineering activity overseas

Mr D Williams Department of the Environment
Room A228
SC Division
2 Marsham Street
London SW1P 3EB

The record of openings and closures of manufacturing establishments

Mr J Makepeace Department of Trade
and Industry
Ashdown House
123 Victoria Street
London SW1E 6RB

II Surveys to local authorities

Further education students at evening institutes

Students in FE establishments

Mrs I MacDonald Department of Education
Davies and Science
Statistics Branch
Elizabeth House
York Road
London SE1 7PH

Advanced course early statistics

Mr N Rudoe Department of Education
and Science
Statistics Branch
Elizabeth House
York Road
London SE1 7PH

Residential accommodation for the elderly and younger physically handicapped:

- Local authority homes
- Registered homes
- Separate units
- Residents in local authority homes
- Residents in separate homes
- Supported residents in all homes

Residential accommodation for the mentally handicapped:

- Local authority homes
- Registered homes
- Supported residents in all homes

Residential accommodation for the mentally ill:

- Local authority homes
- Registered homes

— Supported residents in all homes

Mr J N Lithgow Department of Health
and Social Security
Hannibal House
Elephant and Castle
London SE1

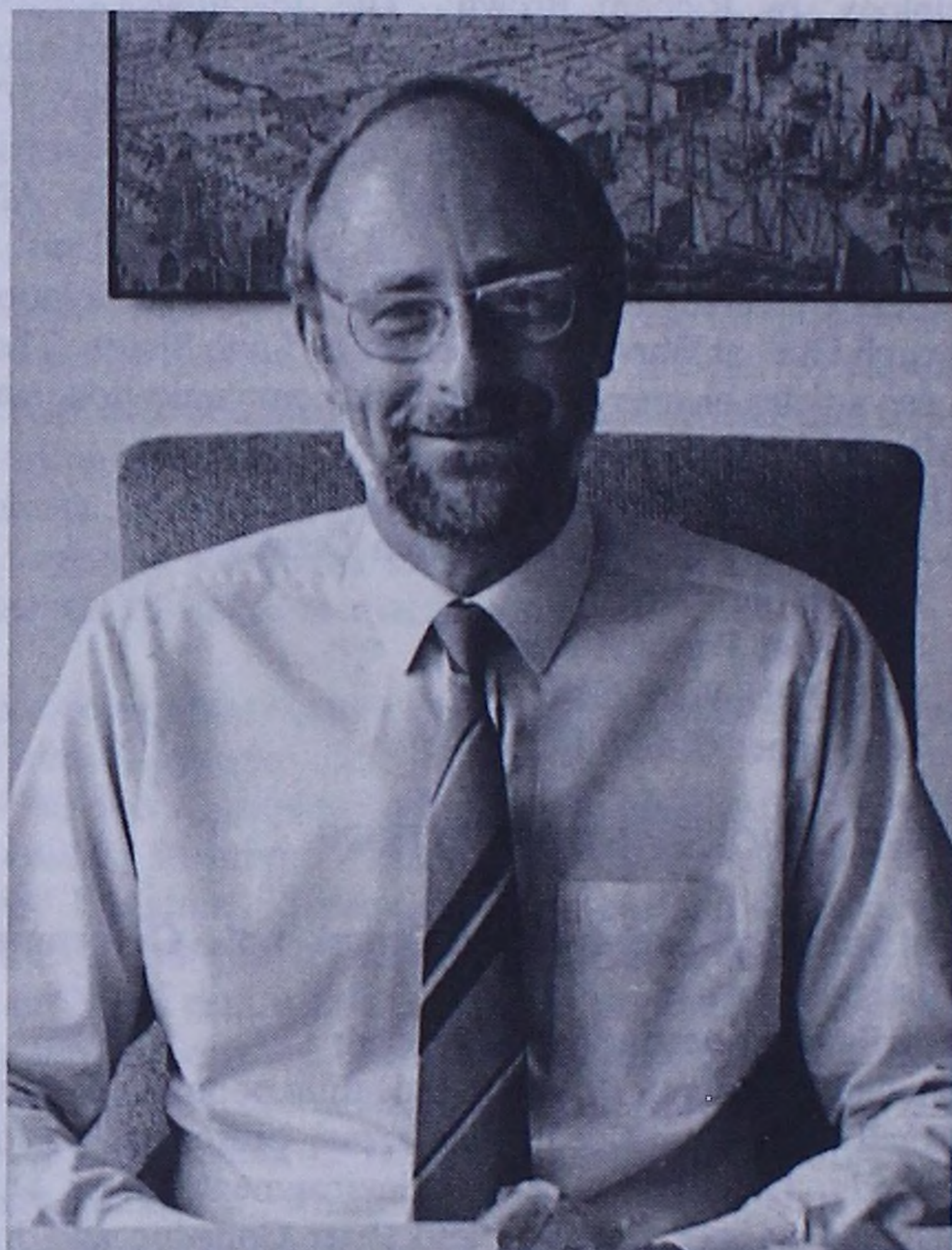
Price index of public sector house building

Mr P Swallow Department of the
Environment
Room A238
2 Marsham Street
London SW1P 3EB

Population estimates — return of housing development

Mr D A Orr General Register Office
for Scotland
New Register House
Edinburgh EH1 3YT

Appointments and changes



Dr R J Gibbs was appointed Director of Statistics and Management Information (Grade 3) at the Department of Health and Social Security (DHSS) on 15 September. He was previously Director of Operational Research (Grade 4) and Head of NHS Performance Indicators Branch at DHSS. He succeeds Mr A R Smith who retired earlier this year.

Dr Gibbs who is 43 years of age, was educated at Merchant Taylors School, Northwood, Middlesex, and at Cambridge University. His PhD in Operations Research was conferred by Warwick University in 1974. His civil service career had been mainly in Operational Research starting in the Home Office in 1968 and continuing in DHSS from 1970. His work has included a large amount of statistical analysis. He spent two years in the Central Policy Review Staff at the Cabinet

Office and one year as a Research Scholar at the International Institute for Applied Systems Analysis in Austria.

He was promoted to become Director of Operational Research DHSS in 1982. He is a visiting Professor to the Department of Statistical Science, University College of London.

Roger Thatcher

Roger Thatcher, Director of the Office of Population Censuses and Surveys and Registrar General for England and Wales since 1978, is retiring after 34 years in the Government Statistical Service.

Roger Thatcher was born at Birmingham in 1926. He was educated at the Leys School and St John's College, Cambridge, where he read mathematics and economics with statistics before serving in the Royal Navy for two years as a meteorological officer.

In 1949 he joined the North Western Gas Board as an assistant statistical officer, but in 1952 he took the open competition for the Statistician Class and was appointed an Assistant Statistician in the Admiralty, where he worked for 9 years. He was promoted to Statistician in 1956. He is still remembered in the Ministry of Defence for having made a considerable innovation, using probability theory, to reduce the enormous stock of naval stores.

In 1961 he transferred to the Central Statistical Office, then under its founder Sir Harry Campion. Here he did various jobs including work for the Robbins Committee on Higher Education. In 1963 he was promoted to Chief Statistician at the then Ministry of Labour, working to Ronald Fowler as the Director. Life was very hectic: there were many reviews, which all concluded that **more** (not less!) should be done.

In 1968 he became Director of Statistics at the Ministry of Labour. In this post he introduced the New Earnings Survey - such comprehensive coverage had never been possible before and the survey produced regular data on the form of the frequency distribution of earnings. He found time to organise and publish the *Historical Abstract of British Labour Statistics*, which brought together all the main statistics back to 1886. He also introduced the census of employment in order to produce employment statistics when the previous source (national insurance cards) was abolished.

In 1972 he was promoted to Deputy Secretary in what was by then the Department of Employment. He retained the title of Director of Statistics but was also made responsible for the research and planning division and for the economists, and was appointed chairman of the Retail Prices Index Advisory Committee. He was in this post until 1978.

He was appointed Director of the Office of Population Censuses and Surveys, and Registrar General for England and Wales, in 1978. The responsibilities of this post include the registration of births, marriages and deaths (and the administration of the marriage laws); conducting the censuses of population; producing population statistics and medical statistics; carrying out social surveys; and operating the National Health Service Central Register (NHSCR). Clearly,

in this post he had to deal with many problems besides the production of statistics. There was a plan for dispersal which was later cancelled, and then a long series of cuts and reviews. The permanent staff of OPCS were reduced from 2,800 to 2,100. The Rayner Reviews of Statistics were followed by a Scrutiny of the Registration Service by the Government Efficiency Unit, and most recently, there has been a Machinery of Government Review.

On the statistical side, the main event of this period was the 1981 Census of Population. There was a great debate on whether this should include a question on race or ethnic origin, but this was eventually dropped, largely because of opposition by the ethnic minorities themselves. The 1981 Census itself was carried out successfully, in the traditional manner, and the results were published at record speed.

Roger Thatcher's interest in statistics began in the field of probability theory but shifted gradually to problems of large scale data collection, together with econometric models and demographic analysis. Outside the office he has also found time to publish several papers which reflect his other interests, which include archaeology, theory of numbers and cosmology. He has been a Vice President of the Royal Statistical Society and a personal and then ex-officio member of the International Statistical Institute. He was awarded the CB in 1974.

Mrs M Haworth, Statistician, Business Statistics Office, was promoted to Chief Statistician, and transferred to HM Treasury on 1 September 1986.

Mr D Adams Jones, Chief Statistician, Welsh Office transferred to the Scottish Home and Health Department as Director of the Information Services Department on 29 September 1986.

Mr B J Buckingham, Chief Statistician, Department of Employment, transferred to the Central Statistical Office as Head of Branch 8 on 8 October 1986.

Mr M J N Hughes, Statistician, Customs and Excise was promoted to Chief Statistician and transferred to Department of Employment on 8 October 1986.

Mr R Willmer, Statistician, Ministry of Defence was promoted to Chief Statistician and transferred to the Department of Health and Social Security on 1 October 1986.

Dr M Pepper, Statistician, Department of Energy was promoted to Chief Statistician and transferred to the Welsh Office on 3 November 1986.

Obituary

Readers will learn with regret of the death on 8 September 1986 of *Mr D B Manwaring*, retired Chief Statistician.

Alphabetical Index

The index to *Statistical News* covers the last nine issues. Page numbers are prefixed by the issue number, e.g. 68.34 signifies number 68, page 34.

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

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

- abortion statistics, 69.36, 73.31
- accidents - and see road accidents
 - and violence, 73.27
 - workplace, 73.31
- adults heights and weights, 68.37
- aerospace and electronics cost indices, 69.43, 72.43
- agency nursing staffs, Scotland, 68.38
- agricultural
 - and horticultural census, 67.36, 69.42, 71.43, 73.36, 74.39, 75.43
 - canned and bottled fruit and vegetables, 68.41, 69.42, 70.33
 - cereals on farms, 68.40, 69.42, 70.33, 73.36, 74.38, 74.39
 - crop production, annual estimates harvest, 1983, 67.38, 1984, 68.40, 71.43, 73.36, 1985, 75.43
 - December census, 1983, 67.38, 1984, 69.42, 70.33, 1985, 74.39
 - December, glasshouse census, 67.38, 73.36, 75.43
 - Departmental Net Income Calculation, 67.37, 69.41
 - farm environment survey, 73.36
 - farm produce, 1979-85, 75.42
 - hedge survey, 73.37
 - irrigation of outdoor crops, 75.43
 - June agricultural census, 1983, 67.37, 1984, 69.42, 1985, 74.39
 - machinery census, 67.38, 70.33, 74.39
 - pig inquiry, sample, April 1984, 67.38, August 1984, 68.40, April 1985, 71.43, August 1985, 73.36, April 1986, 74.39 Scotland, 67.38
 - pond survey, 73.37
 - Scottish agricultural censuses, June, 67.38, 69.42, 72.42, 75.43
 - stocks, wheat, barley, oats, 68.40, 69.42, 70.33, 71.43, 73.36, 73.37, 74.38
 - straw survey, 67.37, 69.42, 74.39
 - survey, December 1984, 69.42, 70.33
 - vegetable and flower census, 67.37, 70.33, 74.39
 - wine, English, 70.33, 74.39
 - woods and trees survey, 73.37
 - workers, hours and earnings, 70.33, 73.36, 74.38
 - workers, mortality, 75.38
- Agricultural Statistics for the United Kingdom*, 67.38, 73.36
- agriculture, economic accounts, UK, 67.37
- Agriculture in Scotland*, 67.38, 71.44
- amputation statistics, 67.34
- Annual Abstract of Greater London Statistics 1983/84*, 71.53
- Annual Abstract of Statistics, 1985*, 68.46, 1986, 72.29, 72.50, 73.17(A)
- amendments, 73.46
- Annual Abstract of Statistics Northern Ireland, 1984*, 69.47, 1985, 72.50
- Annual Review of Agriculture 1985*, 69.41, 1986, 73.36
- Annual Review of Government Funded R&D 1984*, 68.44, 1985, 72.48
- armed forces
 - pay, 67.37, 70.31, 71.43, 74.37, 75.42
 - training, 74.36
- arts
 - funding in Europe, 68.38
 - facts about the, 75.41
- balance of payments,
 - developments, 71.51, 75.52
 - exchange rates, 73.49
 - overseas earnings, 70.41
 - United Kingdom Balance of Payments 1985*, 70.40, 1986, 74.42
- Bank of England as registrar, 71.51
- Bank of England Quarterly Bulletin*, 67.45, 68.47, 69.47, 70.44, 71.51, 72.51, 73.47, 74.46, 75.51
- banking markets, international, 69.47, 73.47
- banking statistics, 71.51, 73.47, 75.51
 - calendar month money, 75.49
- BBC Domesday project, 75.16(A)
- bill of entry system review, 69.53
- birth expectations, 74.31
- birth projection, microcomputer graphics, 72.24(A)

- birth statistics, 69.36, 75.37
- births
 - illegitimate, 73.25
 - trends, 75.37
- Blue Book, 67.42, 70.40, 74.41
- breath test statistics, 67.33
- Britain's workforce, 67.31, 74.35
- British Aid Statistics 1981-85*, 75.49
- British citizenship, 67.33
- British Industrial Performance*, 71.19(A)
- budget report and financial statement, 69.45, 73.40
- business expansion scheme, 68.43
- business finance, 67.45
- Business Monitor series, 67.38, 70.34, 74.39, 75.43
- Business Statistics Office, 68.4(A)
- businesses,
 - manufacturing, classified list, 67.39
 - units by size, 67.39
 - new register, 70.13(A)
 - regional analysis, 68.41, 69.42
 - size analysis, 74.40
 - starts and stops, 68.41, 69.42, 70.35, 71.44
 - turnover size, 68.41, 72.42
 - UK registrations/deregistrations for VAT 1980-85, 75.45
- cancer statistics, 72.38
- cash limits, 67.43, 71.48, 74.49
- catering inquiry, 1982, 67.41, 71.44, 74.49
- Census of Population 1981, 68.34, 69.35, 70.27
 - automatic editing, 68.13(A)
 - between-area differences, 71.33
 - children, Britain's, 69.35
 - Decennial supplement, 73.27
 - economic activity, 67.31
 - elderly population, 68.34
 - evaluation of, 70.27
 - local authority areas, 68.35, 71.37
 - longitudinal study, 67.31, 70.27, 73.27
 - migration, 69.36
 - Northern Ireland, 67.32, 70.27
 - place names, 72.36
 - post-enumeration survey, 69.35
 - shaping the next census, 69.35
 - travel to work, 1971-1981, 69.35, 74.41
 - wallcharts, 68.34, 74.41, 75.42
 - ward trends, 1971-1981, 72.35
 - workforce, 67.31, 74.35
- Census of Population and associated social statistics, 68.16(A)
- Census of Population, infants under one, 1861-1981, 68.35
- Census of Production
 - industry monitors, 1982, 67.38, 1983, 70.34, 1984, 74.39, 75.43
 - Northern Ireland, 1981, 68.41, 1982, 72.55
 - overseas owned firms, Scotland, 67.41
 - Summary volumes, 1982, 70.35, 1983, 72.42, 75.44
- Central Statistical Office
 - new Director, 69.4
 - publications, reduced prices, 68.46, 71.56
- changing from a manual to a computer system, 69.19(A)
- channel tunnel fixed link, 74.7(A)
- childbearing, 73.25
- children, Britain's, 69.35
 - dental health, 69.39
 - family circumstances, 73.25
 - pre-school provision, Scotland, 68.38, 74.35
- China visit by GSS Director, 68.25
- Chips and jobs acceptance of new technology*, 72.53
- cinemas, 67.41, 71.45
- CIPFA information service, 72.17(A)
- Civil Service, ethnic monitoring, 68.28(A)
- Civil Service Statistics, 1985*, 70.43, 1986, 74.45
- Classification
 - and see Standard Industrial Revised (1980)
 - areas, socio-economic, 69.36, 71.37
 - economic activity, 73.34
 - labour force survey, 73.34
 - local authorities, 71.37, 73.30
 - manufacturing, businesses, list, 67.39
 - overseas trade, 69.47, 70.41, 73.44
 - sector booklet, 69.46
 - DTI, 69.53
- cohabitation, 73.25
- Commercial and Industrial Floorspace Statistics*, 70.35, 73.53
- commodity flow accounts, 70.37, 71.47
 - futures markets, 74.46
- Commonwealth Statisticians, tenth conference, 71.9(A)
- companies, annual report on, 71.47
 - large, performance, 75.52
 - short-term finance, 73.48
- company
 - boards, composition, 70.44
 - finance, performance, profitability, 67.45, 70.38, 70.44, 73.42, 73.43, 74.46
 - financial decisions, 73.48
 - investment intentions, 68.43, 70.39, 72.47
 - liquidity survey, 70.39
 - profitability, international comparisons, 67.44
 - rates of return, 67.43, 72.47
 - sector finances, 73.43
- Company Finance and Performance*, 73.43
- computer
 - business graphics, 73.47
 - services, industry turnover, 70.36
 - system for aid statistics, 69.19(A)
- computing, GSS, 73.47
- conception statistics, 69.36
- condensation, housing, Scotland, 67.33
- conferences, meetings and courses
 - Bayesian statistics, 72.53
 - Commonwealth Statisticians, tenth, 69.51, 71.9(A)
 - European Statisticians, 70.48
 - experimental design, 74.47
 - fiscal expansion and unemployment, 73.48
 - full employment, 67.46
 - industry, quality and statistics, 72.53
 - information sources for business, 72.54
 - input-output, Japan, 75.18(A)
 - Institute of Statisticians, 74.47

- job generation, 68.39
- Library Assoc./RSS workshop, 75.53
- multivariate analysis, 72.53
- National Statistical Institutes,
 - Directors-General, 70.48
 - other meetings, 69.51
 - population conference, 67.31, 67.49
- Royal Statistical Society Study Group on the Government Statistical Service, meetings, 67.48, 71.53
- Statistical data files, 70.49
- Statistics Users' Conference, Census of Population, 1984, 68.16(A), 1985, Financial Statistics, 70.48, 72.26(A)
- Survey Methods Centre, 69.52
- United Nations Statistical Commission, 69.50
- construction industry, 1983, 72.42, NI 1981, 68.41, 1982, 72.55
- consumer dissatisfaction, 73.29
- consumer durables, stock of, 67.50, 72.43
- Control of Immigration Statistics, 1984*, 70.29
- convictions, previous, of persons convicted in 1982, 73.30
- costs, labour, 71.42, 73.35
- credit business, 73.43
- crime, NI, 1983-84, 73.30
- criminal careers, young males, 71.37
- criminal convictions, drug addicts, 71.38
- Criminal Statistics, Scotland, 1980-82*, 68.37
- Customs and Excise
 - bill of entry review, 69.53
 - export values verification, review of survey, 68.50
 - review of statistical office, 69.53
- data advisory panel, education, 68.38
- Data Archive, ESRC, 75.27(A)
 - Bulletin*, 67.47, 69.49, 70.45
 - Newsletter*, 75.53
- data analysis and collection, social science, 68.52
- Data Protection Bill, 67.24(A), 70.51
- deaths - and see mortality
 - by cause, 72.36
 - in institutions, 72.35
 - infant, 72.36
- Defence Estimates, statement on, 1985, 70.36, 1986, 74.40
- dentists' remuneration, 74.37
- DES statistical services, 75.40
- developing countries, prospects, 74.46
- development
 - and research, 68.44, 70.42
- developments, Council of Europe, 71.33
- Digest of Environmental Protection and Water Statistics No. 7*, 68.43 *No. 8*, 73.40
- Digest of United Kingdom Energy Statistics*, 71.45, 74.40
- Digest of Welsh Historical Statistics*, 73.19(A)
- disabled people, public sector, 69.40, 73.35
- diseases
 - infections, during pregnancy, 69.39, 71.40
 - sexually transmitted, 70.30
- distributive and service trades, results of 1983
 - inquiries, 71.44, 1984, 74.49
 - divorce statistics, 73.26
 - trends, 74.31
 - doctors' remuneration, 70.31, 74.37
 - statistical work in, 72.4(A)
 - domestic proceedings, in court, 70.17(A)
 - drinking
 - regional, 71.40
 - women, 72.37
 - drug addicts, convictions, 71.38
 - drug-related illness, 71.39
 - DTI statistics, bicentennial review, 74.14(A)
- earnings-also see pay and salaries
 - and hours, agricultural workers, 70.33, 73.35, 74.38 manual workers, 69.41, 70.33, 73.35
 - New Earnings Survey, 1984*, 69.41, 71.42
 - overseas, 70.41, 75.50
 - public services pay in the 1980s, 70.44
 - real wage-employment, UK models, 70.45
- economic activity, 73.34, reports, 67.31
- Economic Progress Reports*, 73.42, 75.51
- economic recovery, patterns, 69.46, 75.51
- economic recovery 1930s, 68.49
- Economic Trends Annual Supplement 1985*, 68.46, 1986, 72.50
- education
 - assisted places scheme, Scotland, 72.40
 - data advisory panel, 68.38
 - further education students, 73.32, Scotland, 72.40
 - non-advanced, 69.39, 73.32, Scotland, 71.41
 - student/staff ratios, 73.33
 - graduates, first job, 73.32, Scotland, 72.40
 - higher education in Great Britain, 67.35
 - projections, Scotland, 72.40
 - international comparisons, 72.39, 72.40
 - participation, young people, 74.35
 - pre-school children, provision, Scotland, 68.38, 74.35
 - schools, in England, 73.33
 - placing requests Scotland, 70.31, 74.35
 - pupils and teachers, Scotland, 70.31, 73.33, 74.35
 - secondary, staff, 1984, 74.35
 - SED statistical bulletins, 68.38, 69.39, 70.31, 71.41, 72.40, 73.33, 74.35
 - statistics, Scottish, 74.35
 - teachers, 73.32, 73.33
 - university students, 70.31
 - vocational training, 69.41, 74.46, Scotland, 71.41
- elderly, 1981 Census, 68.34, mortality rates, 72.35
- election results, 67.46
 - county council 1985, 73.29
- electoral statistics, 1984, 69.37, 1985, 73.27
- electrical engineering, 67.40, 75.45
 - since 1978, 75.42
- electricity supply industry, performance, 67.40
- electricity supply statistics, 68.42
- electronics, aerospace industry, cost indices, 69.43, 72.43

- employees in employment, 69.39
- employment - and see labour
 - and real wage, UK models, 70.45
 - and real wages, inter-war period, 68.49
 - Appeal Tribunal, 68.39, 73.35
 - creation in USA and UK, 75.52
 - Department of, 73.4(A)
 - disabled persons, 69.40, 73.35
 - estimates, 69.39, 74.36
 - ethnic minorities, 68.28(A)
 - full, conference papers, 67.46
 - graduates, 70.31, 71.42, 72.40, 73.32
 - hours and holiday entitlements, 70.33, 73.36
 - job generation conference, 68.39
 - manufacturing units, size, 67.39
 - North Sea, 69.41
 - part-time women, 67.36
 - public and private sectors, 69.40, 72.40
 - recent trends, Scotland, 69.40, 72.51
 - self-employed, 68.40, 69.40, 73.34, 74.36
 - skilled craftsmen, S Dorset, 74.36
 - small firms, 67.40
 - sources and definitions, 72.40
 - teachers, newly-trained, 73.32
 - temporary, 72.41
 - women in employment, 67.36
 - after childbearing, 73.25
 - workforce, 67.31, 74.35
 - young people first employment of, 68.39, 71.42, 74.36
- energy demand, short-term forecasting, 70.37
- Energy Statistics, Digest of United Kingdom*, 71.45, 74.40
- engineering industry
 - manpower and training, 68.39
 - training board publications, 68.39, 68.41, 70.46, 74.36, 75.42
 - women technicians, 75.42
- engineering, mechanical, 70.43, electrical, 67.40
- English Life Tables, no 14*, 75.38
- Environment, Department of the, 72.4(A)
 - household projections, 75.20(A)
- environmental pollution, 68.43, 73.40
 - topics, farms, 73.37
- epidemiology, occupational, reproductive, 71.40
- ESRC Data Archive, 75.27(A)
 - Bulletin*, 67.47, 69.49, 70.45
- estimates, population, 70.27, 73.28
 - supply estimates, summary and guide, 1985-86, 69.45, 1986-87, 73.41
- ethnic
 - intermarriage in Great Britain, 70.27
 - monitoring in the Civil Service, 68.28(A)
 - origin and economic status, 72.37
 - population, 74.31
 - prison population, 74.34
- Europe, funding the arts, 68.38
 - demographic trends, 71.36
- European Community
 - 'stagiaire' courses, 72.27
 - tariff protection, 67.46
- European Statisticians Conference, 70.48
- Eurostat
 - life with, 67.14(A)
- exchange rates, variability, 67.46, 73.49
- expenditure
 - arts, the, 68.38
 - autumn statement, 68.43, 72.46
 - definitions and trends, 70.51
 - government's plans,
 - 1985-86 to 1987-88, 69.45
 - 1986-87 to 1988-89, 73.40
 - public, measuring, 70.51
- export values verification, review of survey, 68.50
- exports sales ratios, 72.48
- factor prices, Treasury model, 73.43
- Facts about the Arts 2*, 75.41
- family, the
 - budgets, international comparison, 71.37
 - one-parent in GB, 75.37
 - young children, 73.25
- Family Expenditure Survey, Report, 1983, 68.36, 1984, 69.37, 1985, 73.28
 - study of differential response, 72.13(A)
 - summary expenditure results, 75.39
 - use of, 72.8(A)
- family planning, 72.38, Scotland, 73.25
- fertility
 - trends, 1970-83, 71.33
 - world survey, 67.45, 67.48, 68.49, 69.49
- film and television, overseas transactions, 67.44, 71.48, 75.49
- film exhibitors inquiry, 67.41, 71.45
- films, registration, 70.36
- finance leasing, 67.45
- financial futures, 72.52
- financial institutions, international, 68.48
 - innovations, 74.46
- Financial Statement and Budget Report*, 69.45, 73.40
- Financial Statistics*, 68.47, 72.51
 - Explanatory handbook*, 1985, 68.47, 1986, 72.51
 - conference, 72.26(A)
- financial statistics
 - conference follow-up work, 75.47
 - local government, 67.43, 68.43, 73.53
- fire cover standards, 70.30
- fireworks injuries, Scotland, 1984, 68.38
- fiscal policy, 67.46, 71.52, 73.49
- fish landings in the UK, 1984, 72.42
- floorspace statistics, 70.35, 73.53
- food, self-sufficiency, 72.41
- food supplies, total, 72.41
- food survey, national, 70.33, 71.43, 73.37, 74.38
- football statistics, 73.49
- foundries, iron, 71.44
- freight market conditions, survey, 72.45
- freight, waterborne, 69.44, 73.38
- gas and oil resources, 70.36, 74.40
- gdp
 - revisions, 70.37
- General Household Survey, 70.9(A), 71.12(A), 72.37
 - birth expectations, 74.31
 - cohabitation, 73.25

- pension question, 72.38
- General Register Office, Scotland, 74.4(A)
- geographic information, Committee of Enquiry, 70.42
- gilt-edged market, future structure, 68.48, 70.44
- government expenditure
 - autumn statement, 68.43, 72.46
 - borrowing and economic policy, 71.52
 - plans, 69.45, 73.40
 - supply estimates, summary and guide, 69.45, 73.41
- government output, national accounts, 73.48
- performance measurement, 74.42
- Government Statistical Service
 - appointments and changes, 67.49, 68.51, 69.54, 70.49, 71.54, 72.55, 73.51, 74.48, 75.54
 - Business Statistics Office, 68.4(A)
 - code of practice, DTI, 69.53
 - computing, 73.47
 - cricket statistics, 74.48
 - Department of Employment, 73.4(A)
 - Department of Health and Social Security, 67.4(A)
 - Department of the Environment, 72.4(A)
 - Department of Trade and Industry, 69.53, 75.4(A)
 - Director's Chinese visit, 68.25
 - General Register Office, Scotland, 74.4(A)
 - Home Office 70.4(A)
 - integrity, 68.19(A)
 - Overseas Development Administration, 71.4(A)
 - retrospect by S. F. James, 68.26(A)
 - review of regular surveys - see surveys
 - Scottish Office, 69.5(A)
 - State figures, 69.11(A)
 - statistics in the 1980s, 68.9(A)
 - trade and industry statistics, bicentennial review, 74.14(A)
 - working overseas, 72.20(A)
- graduates, employment, 70.31, 71.42, 72.40, 73.32
- graduates, leaving employment, 72.41
- Guide to Official Statistics*, 71.50

- Health and Personal Social Services Statistics for England, 1985*, 72.38, 1986, 74.49
- Health and Safety Commission Report 1983-84*, 67.34
- health and safety, manufacturing and service industries, 67.34
- Health and Safety Statistics 1981-82*, 70.30, 1983, 73.31
- Health and Social Security, Department of, 67.4(A)
 - tax/benefit model tables, 70.28
- health authorities, area summary, 73.25
 - socio-economic classification, 71.37
- health visitors, pay, 70.32, 74.37
- heavy goods vehicles, 68.21(A), 75.45
- HMSO, bicentenary, 72.29
- Home Office, 70.4(A)
- homelessness in Scotland, 72.38
- horticultural statistics, basic, 69.42
- hospital activity statistics, 70.30, 75.40
- hospital in-patients, England, 75.40, and Wales, 73.30, 74.34, Scotland, 71.39
- hospitals, mental, 67.34, 72.39, 75.40
- hours and earnings, agricultural workers, 70.33, 73.35, 74.37 manual workers, 69.41, 70.33, 73.35
- house renovation grants in Wales, 71.26(A)
- Household Food Consumption and Expenditure 1983*, 70.33
- household income, effects of taxes and benefits, 68.37, 72.37, 74.32
- household projections, 69.37, 73.26
 - DoE, 75.20(A)
- household surveys
 - continuous, Northern Ireland, 67.50
 - inter censal, Wales, 1986, 71.39
- households, savings, 70.45
- houses, council, applications to buy, Scotland, 69.38, 71.38
- Housing and Construction Statistics 1973-83*, 67.40, 1974-84, 71.44, 1975-85, 75.44
 - amendments, 73.46
- housing, finance market, 69.48
 - land supply, Scotland, 74.34
- Housing Statistics, Scottish*, 68.37, 71.38, 74.34
- Northern Ireland*, 67.34, 71.39
- housing trends, Scotland, 67.33, 71.38, 72.38, 73.30, 74.34
- Humberside airport passenger survey, 72.46

- ill health, reporting, 73.31
- immigrant mortality, 67.32
- immigration control, statistics, 70.29
- import penetration, 72.48
- income
 - low, DHSS tables, 75.39
 - survey of personal, 1982-83, 71.47
- index of place names, 72.36
- industrial development survey, UN, 73.44
- industrial production index
- industrial research and development - see research and development
- industrial stoppages, 70.43, 71.42, 74.44, 75.41
- industrial tribunals, 68.39, 73.35
- industry, changing world, 73.44
- infant and childhood mortality, 74.31, 75.37
- infant and perinatal statistics, 69.39, 72.36
- infants under one, Census, 1861-1981, 68.35
- inflation
 - since the 1950s, 74.42
- information technology, pilot register of LA
 - research and surveys, 74.17(A)
- Inland Revenue Statistics 1984*, 67.43, 1985, 72.47, 1986, 75.48
- input-output
 - Eighth International Conference, 75.18(A)
 - Scottish tables, 1979, 68.48
- insurance business, 71.47
- insurance companies, financial assets, 67.44, 72.47
- integrity in the Government Statistical Service, 68.19(A)

Inter-American Development Bank, 73.47
interest rates, trends, 75.51
international
Bank for Reconstruction and Development,
69.47
banking in London, 1975-85, 75.51
banking markets, 69.47, 73.47
comparison of stoppages, 70.43, 74.44
comparisons of profitability, 67.44, 72.48
comparisons, taxes and social security
contributions, 69.47, 73.44
earnings UK shipping, 71.45
education, all levels, comparisons, 72.39
family budgets, 71.37
financial institutions, role and future, 68.48
floating-rate instruments, 67.45
industrial data for research, 71.48
industrial development survey, 73.44
Labour Office, 73.11(A)
migration, 71.33, 72.36
population conference, 67.31, 67.49
publications, 67.47, 68.49, 69.49, 70.47,
71.49, 72.49, 73.44, 73.45, 74.44, 75.50
road haulage survey, 68.42, 71.46
Statistical Institute, official statistics, 72.48
travellers, 67.44
UNIDO database, 74.44
publications, 73.44, 74.44

investment

capital stock, 74.46
intentions survey, 68.43, 70.39, 72.47
management in the UK, 70.44
overseas, 70.40, 71.48, 74.43
rate of return on, 70.40
iron foundries, 71.44

job generation conference, 68.39
jobs, acceptance of new technology, 72.53
Judicial Statistics 1983, 67.32, 1984, 71.37,
1985, 74.33

Key Data, 74.24(A)

labour

costs, 71.42, 73.35
force outlook, 71.42, 73.34
force survey, 70.31, 71.42, 73.34, 74.36,
75.41
civilian estimates, 67.36, 68.39, 69.39,
73.34, 74.36
housing, 73.34
market data sets, 67.36
research, 73.48
market for new graduates, 70.31, 71.42
market statistics, 100 years on, 73.4(A)
market trends, quarterly report on, 69.40,
71.41, 73.33
laundry appliances industry, 68.41
leasing changes, 72.52
libraries, government department and other,
71.16(A)
life licensees, 69.38
liquidity aggregates, 70.39
survey, company, 70.38

local authority

area summary, 73.25
classification, 73.30
pilot register of research and surveys,
74.17(A)
population centres, 1981 and 1971, 68.35
projections, 73.25
socio-economic classification, 69.36, 71.37
Local Government Comparative Statistics, 69.54,
1986, 74.46
local government financial statistics, 67.43,
68.43, 73.53
Longitudinal study, OPCS, 67.31, 70.27, 73.27

macroeconomic policy

France and Britain, 68.48
Germany and Britain, 72.52
model, 1986, Treasury, 75.51
NIERS model 8, 72.52, 73.48
manpower
Civil Service Statistics, 70.43, 74.45
engineering industry, manpower and
training, 68.39
forecasting for Royal Navy officers, 69.22(A)
NHS statistics, Scotland, 67.34, 68.38
statisticians, supply and demand, 68.40
manual workers, earnings and hours of, 69.41,
70.33, 73.35

manufactured goods, imports, 71.52, 74.42
manufactures, imports model, 74.42

manufacturing industry

business, classified list, 67.39
health and safety, 67.34
sales, review of monthly inquiries, 68.51
trends in trade and output, 70.35
manufacturing units, employment size, 67.39
markets, spot and futures, 72.52, 74.46
marriage (early years), internal migration,
68.35

and divorce statistics, 73.26
cohabitation before, 73.25
condition estimates, 75.37

maternity in-patients, 73.30

research and development, Scotland, 70.43
mental health enquiry, 69.39, 70.30
mental health statistics, 72.39
mental hospitals, facilities and services, 67.34,
72.39

micro-computer

birth projections in Scotland, 72.24(A)
manpower forecasting, 69.22(A)
user-friendly analysis package, 67.20(A)
midwives, pay, 70.32, 74.37

migrant flows, history, in the Rep. of Ireland,
69.36

migration

international, 71.33, 72.36
national, 68.35
mineral statistics, UK, 70.43
minerals, annual census, 72.42
model, National Institute, 67.46, 72.52, 73.48,
73.49, 75.52
debt interest, Treasury, 75.51
factor prices, Treasury, 73.43
imports of manufactures, 74.42

- wage-bargaining, Treasury, 75.51
- wage-employment, 70.45
- monetary
 - aggregates, 74.42
 - policy, 68.43
 - statistics, 71.51
- Monthly Digest of Statistics*
- Annual Supplement, 1985, 68.47, 1986, 72.51*
- mortality
 - area comparisons, 72.35
 - by cause, 72.36
 - immigrant, 67.32
 - infant and childhood, 74.31
 - occupational, 73.27
 - perinatal and infant, 69.36, 72.36
 - projection rates of the elderly, 72.35
 - socio-demographic differentials 1971-1981, 70.27
- Mortality statistics 1983, 67.31, 1984, 72.36, 73.27*
- motor trades inquiry, 67.41, 74.49
- museums, visiting, 67.33, 72.40

- national accounts
 - commodity flow accounts, 70.37, 71.47
 - companies, real rates of return, 67.43, 67.44
 - GDP, quarterly revisions, 70.37
 - government output, 73.48
 - personal sector saving ratio, 67.43
 - sector classification booklet, 72.46
 - sources and methods, 70.20
 - United Kingdom, 67.42, 70.37, 74.41*
- National Coal Board Annual Report 1983/4, 67.48, 1984/5, 71.53
- national debt, distribution of, 68.48, 72.52, 73.48
- national food survey
 - quarterly results, 71.43, 72.41, 73.37
 - Reports for, 1983, 70.33, 1984, 74.38
- National Institute Economic Review, 67.46, 68.48, 69.48, 70.44, 71.52, 72.52, 73.48, 74.46*
- National Maritime Museum, visitors, 72.40
- New Earnings Survey, 1984, 69.41, 1985, 71.42*
- NHS performance indicators, 75.23(A)
- non-official statistical sources, 67.47, 69.25(A), 73.46
- non-oil developing countries, prospects, 74.46
- Northern Ireland
 - Annual Abstract of Statistics, 1984, 69.47, 1985, 72.50*
 - Census of Population, 1981, 70.27
 - Belfast, 67.32
 - Census of Production, 68.41, 72.55
 - crime statistics, 1983-84, 73.30
 - Housing Statistics, 1983, 67.34, 71.39*
 - Registrar General, Annual Report, 1981, 68.36, 1982, 73.28, 1983, 75.38
 - Social Security Statistics 1984, 69.48*
- North Sea oil
 - financing of, 68.48
 - offshore employment, 69.41
 - oil and gas resources, 70.36, 74.40
 - revenues, 74.42
- numerical and statistical techniques, 68.45

- nursing staff, pay, 70.32, 74.37
- agency, Scotland, 68.38

- occupational
 - mortality, 73.27
 - pension schemes 1983, 75.39
 - reproductive epidemiology, 71.40
- OECD statistics, 71.21(A)
- official statistics, 72.48
- oil - and see North Sea
 - and gas resources, 70.36, 74.40
 - crude, world prices, 74.21(A)
 - exporters' surpluses, 69.48
 - prices and the economy, 74.46
- other services, starts and stops, 70.35
- output
 - constant prices, services industries, 74.40
 - government measurement, 74.42
 - indices, Scotland, 74.45
 - Scottish service sector, 67.41, 74.45
 - trends in manufacturing, 70.35
- Overseas Development Administration, 71.4(A)
- overseas earnings, 70.41, 75.50
- overseas investment, 69.46, 70.40, 71.48, 74.43
- overseas trade, 74.43
 - by industry, 71.48
 - classification, 69.47, 70.41, 73.44
 - foreign currency invoiced, 70.41, 73.44
- overseas transactions
 - films and television, 67.44, 71.48, 75.49
- overseas travel and tourism, 67.44, 71.48, 74.43

- parliamentary election results, 67.46
- pay - and see earnings and salaries
 - armed forces, 67.37, 70.31, 74.37, 75.42
 - doctors' and dentists' remuneration, 70.31, 74.37

- nursing staff, midwives, health visitors, 70.32, 74.37
- professions allied to medicine, 70.32, 74.37
- public services pay in the 1980s, 70.44
- real wage-employment debate, UK models, 70.45
- top salaries, 71.43, 74.37
- PAYE statistics, 67.36
- pension funds, financial assets, 67.44
 - scheme membership in 1983, 72.38
- performance indicators, NHS, 75.23(A)
- perinatal and infant mortality, 69.36, 72.36, 74.31
- personal sector
 - liquidity aggregates, 70.39
 - reform of taxation, 73.41
 - saving ratio, 67.43
- pilot register of LA research and surveys, 74.17(A)
- place names, index, 72.36
- Plain Figures, 75.51*
- population - and see Censuses of Population
 - adults heights and weights, 68.37
 - birth statistics, 69.36
 - changes, 74.31
 - density, 75.37, better measures of, 69.35

- estimates, 69.37, 70.28, 71.33, 73.28, 74.32
- GRO(S), 67.32, 68.35, 69.37, 70.28, 71.36, 73.28, 74.32
- international conference, 67.31, 67.49
- local authority areas, 68.35, 73.25
- mortality-see separate item
- prison, 70.29, 74.33
- projections, 71.33, 73.25, 74.31
- regional migration, 68.35
- review of 1983, 68.34, 1984, 72.35
- small area statistics, 68.35, 71.33
- socio-demographic change, 71.34
- sources used, 71.33
- Trends*, 67.31, 68.34, 69.35, 70.27, 71.36, 72.35, 73.25, 74.31, 75.37
- ward, trends, 72.35
- Port Statistics*, 67.41, 69.44, 71.46, 73.39, 75.46
- potato crisps and snack foods, 68.41, 69.42
- pregnancy, infectious diseases, 69.39, 71.40
- prices
 - factor, Treasury model, 73.43
 - oil, 74.21, 74.46
- prison, ethnic population, 74.34
 - output, 74.40
- prison population, projections, 70.28, 74.33
- Prison Population in 1984*, 70.29
- prison service, staff attitudes, 69.38
- prison statistics: Scotland, 72.38
- prison, young offenders, 69.38
- private and public sector employment, 69.40, 72.40
- production, census - see Census of Production
- productivity
 - British and German manufacturing plants, 69.48
 - service industries, 73.48
- profitability, in companies, 67.45, 70.44, 71.51
 - international comparisons, 67.44, 72.48
- public and private sector employment, 69.40, 72.40
 - pay, 69.40
- public expenditure
 - autumn statement, 68.43, 72.46
 - cash limits, 67.43, 71.48, 74.49
 - definitions and trends, 70.51
 - measuring, 70.51
 - White Paper, 69.45, 73.40
- public library, use of statistical publications, 71.16(A)
- public sector
 - borrowing requirement, 68.48, 71.52
 - disabled employees, 69.40, 73.35
 - employment, 69.40, 72.40
 - financial targets, 71.52
 - government's policy, 71.52
 - housing sales, Scotland, 69.38, 71.38
 - net debt, 73.48
 - pay, 70.44
 - rents, Scotland, 67.33, 71.38, 74.34
 - yearbook, 74.47
- radioactive waste disposals, Scotland, 69.46
- reconvictions and recalls of life licensees, 69.38
- redundancy statistics, 70.31
- regional
 - accounts 1983, 67.50, 1984, 71.47
 - analysis, businesses starts and stops, 68.41, 69.42
 - drinking, 69.38, 71.40
 - labour force estimates, 1983, 68.39
 - projections to 1991, 73.34
 - migration, effect on populations, 68.35
 - policy changes, Scotland, 68.48
 - self-employed, estimates, 73.34
 - Trends 1985*, 68.36, 1986, 73.28
 - amendments, 75.39
 - register of businesses, 70.13(A)
 - registrations, cancer patients, 72.38
 - research and development statistics, 68.44, 70.42, 70.43, 72.48 68.44, 70.42, 70.43, 72.48
 - Retail Prices Index Advisory Committee, 74.38
 - weights, 69.37, 73.28
 - retailing inquiry, 1982, 69.43, 1983, 72.55, 1984, 74.40
 - review of surveys - see surveys
 - Road Accidents: Great Britain*, 67.42, 1984, 72.45, 1985, 75.45
 - for English regions, 69.44, 74.41
 - road haulage survey, international, 71.46
 - road-length data, 69.43, 74.41, Wales, 70.44
 - road traffic estimates, 73.38
 - GSS study group, 67.48, 71.53
 - other meetings, 69.51
- salaries - and see earnings and pay
 - armed forces' pay, 70.31, 71.43, 74.37
 - doctors' and dentists' remuneration, 70.31, 74.37
 - nursing staff, midwives, health visitors, 70.32, 74.37
 - professions allied to medicine, 70.32, 74.37
 - top, 71.43, 74.37
- saving ratio, personal sector, 67.43
- savings, committed and discretionary, by households, 70.45
- school children, secondary, smoking, 71.40
 - numbers leaving, 71.42, 75.41
- schooling standards in England and Germany, 70.45
- schools, applied statistics, prizes, 70.21
 - in England, 73.33
 - secondary, staffing, 1984, 74.35
- Scotland
 - Advance Tables (NHS)*, 70.30
 - agency nursing staff, 68.38
 - agricultural censuses and surveys, see agricultural
 - agriculture in, 67.37, 71.44
 - assisted places scheme, 72.40
 - condensation, housing, 67.33
 - Criminal Statistics 1980-1981*, 68.37
 - economic support in rural areas, 70.43
 - educational statistics, 74.35
 - employment trends, 69.40, 72.51
 - family planning, 72.38, 73.25
 - foodborne infections and intoxications, 1984, 70.30
 - further education, enrolment, 71.41, 72.40

General Medical Services, 70.30
 General Register Office, 74.4(A)
 graduates, first employment, 72.40
 health statistics, 67.34, 68.38, 70.30, 73.31
 homelessness, 72.38
 homicide 1980-84, 75.39
 hospital statistics, 71.41
 household projections, 1983-based, 75.39
 housing land supply, 74.34
 housing sales, public sector, 69.38, 71.38
 housing trends, 67.33, 71.38, 72.38, 73.30, 74.34
 industry, high technology, 72.51
 input-output tables 1979, 68.48
 labour productivity, 74.45
 manufacturing employment, 72.51
 medical and dental staff, 71.41
 mental health in-patient statistics, 71.41
 microcomputer graphics, 72.24(A)
 NHS, national manpower statistics, 67.35, 68.38
 non-advanced further education, 71.41
 output indices, 74.45
 overseas owned firms, 67.41, 72.51, 74.45
 patterns of work, 70.43
 plant, branch performance, 72.51
 population and vital statistics-see under population
 pre-school children, provision, 68.38, 74.35
 prison statistics, 72.38
 pupil projections, 73.33
 radioactive waste disposal, 69.46
 regional policy changes, 68.48
Registrar General's Annual Report, 1983, 67.32, 1984, 71.36, 1985, 75.38
 rents, 67.33, 71.38, 74.34
 research and development in mechanical engineering,
 school leavers, 69.39, 71.41, 73.33, 75.41
 schools, placing requests, 70.31, 74.35
 schools, pupils and teachers, 70.31, 74.35
 SED statistical bulletins, 68.38, 69.39, 70.31, 71.41, 72.40, 73.33, 74.35
 service sector output, 67.41, 74.45
 student awards and bursaries, 69.39
 teachers, 73.33, excess and deficit, 71.41
 transport industry 1979, 68.42
 travel-to-work areas, 68.48
 unemployment, 16-17's, 74.36
 university students, 70.31
 vital statistics, 74.32, 75.38
 women's sexual behaviour, 73.25
Scottish Abstract of Statistics, 71.51
Scottish Agricultural Economic Report, 70.33
Scottish Economic Bulletin, 68.48, 70.43, 72.51, 74.45
Scottish Health Statistics, 67.34, 73.31
Scottish Housing Statistics, 68.37, 71.38, 74.34
Scottish Office - Centenary, 69.5(A)
Sea Fisheries Statistical Tables, 1984, 72.42, 73.37
 sea passenger movements, review of form, 71.46
 seat belts, monitoring usage, 73.14(A)
 sector classification booklet, 69.46, 72.46
 sector financing, 70.44, 74.46
 unlisted, 72.51
 self-employed, 69.40, 73.34, 74.36
 young workers, 68.40
 self-sufficiency in food, 72.41
 service, and distributive, trades, results of four-year inquiry, 1983 inquiries, 71.44, 72.43, 1984, 74.49
 services sector
 in the UK economy, 71.44
 'other', starts and stops, 70.35
 output, constant prices, 74.40
 productivity, 73.48
 Scottish output, 67.41, 74.45
 shift from manufacturing, 75.52
 Seychelles, working there, 72.20(A)
 shipping, 71.45
 industry, purchases and sales of ships, 67.42, 71.46, 75.47
 Skelmersdale New Town, population and social survey 1984, 69.49
 small area statistics, 67.36, 68.35, 71.33
 small firms
 definition, 67.40
 job generation, 67.40, 68.39
 starts and stops, 68.41, 69.42, 70.35, 71.44
 smoking
 among secondary school children, 71.40
 habit or choice, 67.31
 snack foods, 68.41, 69.42
 social science, data analysis and collection, 68.52
Social Security Statistics 1984, 68.36, 1985, 73.28
 Northern Ireland, 1983, 67.34, 1984, 69.48
Social Trends, 67.32, 71.36
 amendments to, 69.47, 73.46
 socio-demographic change, 71.34
 sources and definitions, employment, 72.40
 Sources and Methods, National Accounts, 70.20
SSRC Data Archive Bulletin, 67.47
 Standard Industrial Classification Revised 1980,
 State figures, 69.11(A)
Statistical Abstract, 1886, 73.17(A)
 statistical and numerical techniques, 68.45
 sources, non-official, 67.47, 73.46
Statistical Computing Bulletin, 73.47
 statistical data files, bibliographical control, 70.49
 statistical publications in the public library, 71.16(A)
 statistical 'stagiaires' in EC, 72.27
 statistical work in DOE, 72.4(A)
 statisticians
 academic, directory, 68.50
 supply and demand, 68.40
 statistics
 aid, computerisation of, 69.19(A)
 DES services, 75.40
 DTI, bicentennial review, 74.14(A)
 EITB, 70.46
 financial stats., conference follow-up, 75.47
 football, 73.49
 government in the 1980s, 68.9(A)
 Guide, 71.50
 industry and quality conference, 72.53

non-official, 69.25(A), 73.46
 OECD, 71.21(A)
 tourism, 72.44, 74.43
 Trade Association, 69.27(A)
 Statistics Users' Council, 68.17
 group, transport industry, 72.45
 Stock Exchange, reorganisation, 72.52
 stocks
 of consumer durables, 67.50, 72.43
 recent trends, 75.44
 stoppages, 70.43, 71.42, 74.44, 75.41
 student/staff ratios, 73.33
 supplementary benefit statistics, 1983, 70.28,
 1984, 74.32
 survey data expectations, 71.52
Survey Methodological Bulletin, 73.47
Survey of Personal Incomes 1982-83, 71.47
 survey, Welsh intercensal, 71.39
 surveys, reviews of, 67.49, 68.50, 69.52, 70.50,
 71.53, 72.54, 73.38, 73.39, 73.49, 74.47, 75.53

 tax/benefit model tables, DHSS, 70.28, 74.33
 taxation, personal, reform of, 73.41
 taxes and benefits, effects on household income
 1983, 68.37, 1984, 72.37, 74.32
 taxes and social security contributions,
 international comparisons, 69.47, 73.44
 teachers,
 in service and vacancies 1984-85, 73.32
 newly trained, 73.32
 pre-service training, 75.41
 Scotland, 73.32, excess and deficit, 71.41
 technology, new, 72.53
 television and films, overseas transactions,
 67.44, 71.48, 75.49
 temporary work, 72.41
 top salaries, 71.43, 74.37
 tourism statistics, 72.44, 74.43
 trade
 and Industry, 75.4(A)
 association statistics, 69.27(A)
 classification, 69.47, 70.41, 73.44
 foreign currency invoiced, 70.41, 73.44
 import penetration and export sales ratios,
 72.48
 non-oil developing countries, 74.46
 origin and destinations, UK, 74.43
 overseas, 71.48, 71.51
 statistics, 74.14(A)
 tariff protection, 67.46
 trends in manufacturing, 70.35
 union membership, 69.54, 73.30
 traffic in GB, 73.38
 training, vocational, 69.41, 74.47
 transport
 first statistics, 68.21(A)
 freight market conditions, survey, 72.45
 ports, 67.41, 69.44, 71.46, 73.39, 75.46
 road haulage survey
 international, 68.42, 71.46, 75.46
 road traffic estimators, 73.38
 Scottish industry 1979, 68.42
 sea, FORM PAS 15, 71.46
 seaborne trade 1983-85, 75.46
 shipping, 67.42, 71.46, 73.38, 73.39
 statistics, Great Britain, 68.42, 71.45, 75.45
 Wales, 70.43
 statistics users' group, 72.45
 traffic in GB, 73.38
 vehicle census 1985, 73.39
 waterways, 69.44, 73.38, 75.47
 travel and tourism, overseas, 67.44, 71.48,
 74.43
 travel, national survey, 1985/86, 67.41
 travel-to-work areas, 67.36, 74.41,
 Scotland, 68.48
 changing patterns 1971-81, 69.35

 unemployment, 67.35, 73.33
 adjustments, 71.42
 British, causes of, 69.48
 change in compilation, 73.35
 comparisons, 72.41
 fiscal measures, 73.49
 reduction in GB, France and W Germany,
 75.52
 Scottish, 16-17 year old, 74.36
United Kingdom Balance of Payments 1985,
 70.40, 1986, 74.42
 UK exports and imports invoiced in foreign
 currency, 70.41, 73.44
 origins and destinations, 74.43
 UK external assets and liabilities, 69.46, 71.51
 UK imports of manufactured goods, 71.52
 UK international trade, 74.43
United Kingdom Mineral Statistics, 1984, 70.43
United Kingdom National Accounts 1984, 67.42,
 1985, 70.37, 1986, 74.41
 Sources and Methods, 70.20
United Kingdom Statistical Sources, 70.45
 United Nations
 industrial data for research, 71.48
 Industrial Development Organisation,
 publications, 73.44, 74.44
 Statistical Commission, 69.50
 statistical computing project, 68.45
 university
 first degree graduates, Scotland, 72.40
 students, 70.31
 Unlisted Securities Market, 72.51
 user-friendly analysis package, micro-computer,
 67.20(A)

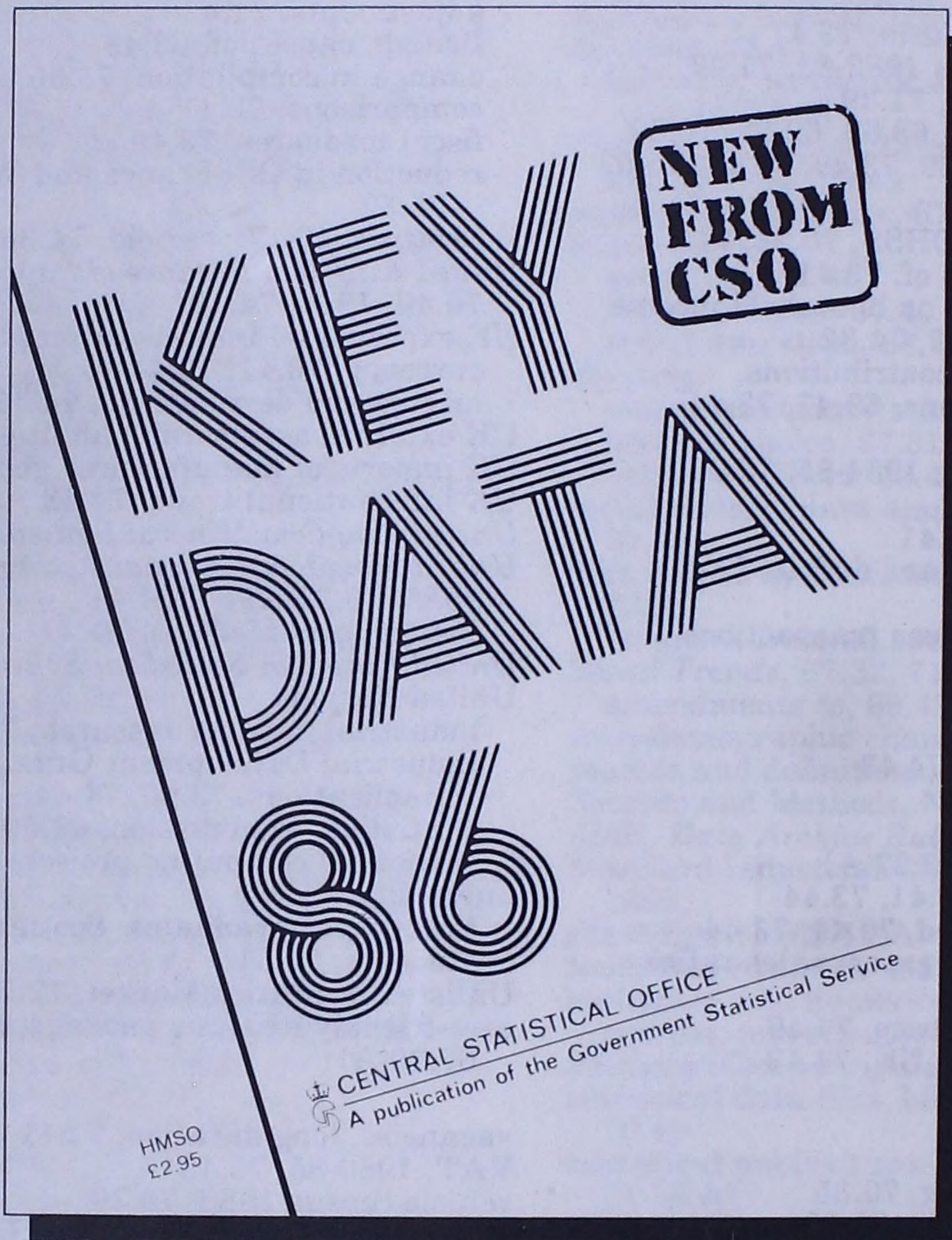
 vacancies, long duration, 72.41
 VAT, 1980-85, 75.45
 vehicle census 1985, 73.39
 vehicle excise duty evasion in GB, 69.43
 visitors, National Maritime Museum, 72.40

 wages and employment, inter-war period, 68.49
 Wales
 house renovation grants, 1983/84 survey,
 71.26(A)
 household projections, 73.26
 household survey 1986, 71.39
 local government financial statistics, 68.43
 road length statistics, 1984, 70.44
 Transport Statistics, 1985, 70.43
 wallcharts, 1981 census of population, 75.42
 water statistics, 68.43

Waterfacts, 70.42
 waterway traffic, 69.44, 73.38
 Welsh Historical Statistics, 73.19(A)
 wholesaling, catering and motor trades,
 inquiries, 67.41, 71.44, 74.49
 Women and Men, 74.49
 women, in employment, 67.36
 after childbearing, 73.25
 and drinking, 72.37
 women's health care preferences, 68.52
 sexual behaviour, 73.25
 world crude oil prices, 74.21(A)

world fertility survey, 67.45, 67.48, 68.49,
 69.49

young offenders
 prison, 69.38
 sentencing, 69.38
 young people, first employment, 68.39
 young workers
 scheme, evaluation, 74.36
 self-employed, 68.40
 youth training scheme, help to employers, 74.36



With over 130 authoritative tables, maps and coloured charts, KEY DATA covers a very wide range of social and economic data. Each table and chart is accompanied by a reference to sources and much more information on sources is given in the 24-page booklet *Government Statistics – A Brief Guide to Sources* – which accompanies KEY DATA free of charge.

AVAILABLE NOW

Price £2.95

HMSO
 ISBN 0 11 620249 1

National Accounts

Pink Book

How much does the 'City' contribute to the United Kingdom's overseas earnings? What are our total transactions with the rest of the European Community? What are the United Kingdom's overseas assets and liabilities? The answers are all in the CSO Pink Book, *United Kingdom Balance of Payments*.

The Pink Book is the basic reference book for balance of payments statistics. It provides detailed information on visible trade, invisibles and capital transactions as well as sections on specific aspects of the balance of payments.

Blue Book

United Kingdom National Accounts, the CSO Blue Book, is the essential data source for everyone concerned with macro-economic policies and studies.

The principal annual publication for national accounts statistics provides detailed estimates of national product, income and expenditure for the United Kingdom.

The Blue Book covers value added by industry, personal sector, companies, public corporations, central and local government, capital formation and financial accounts. Tables contain up to 22 years' data. There are notes and definitions.

United Kingdom Balance of Payments
1986 Edition ISBN 0 11 620247 5

Price £8.95 net

United Kingdom National Accounts
1986 Edition ISBN 0 11 620248 3

Price £12.95 net

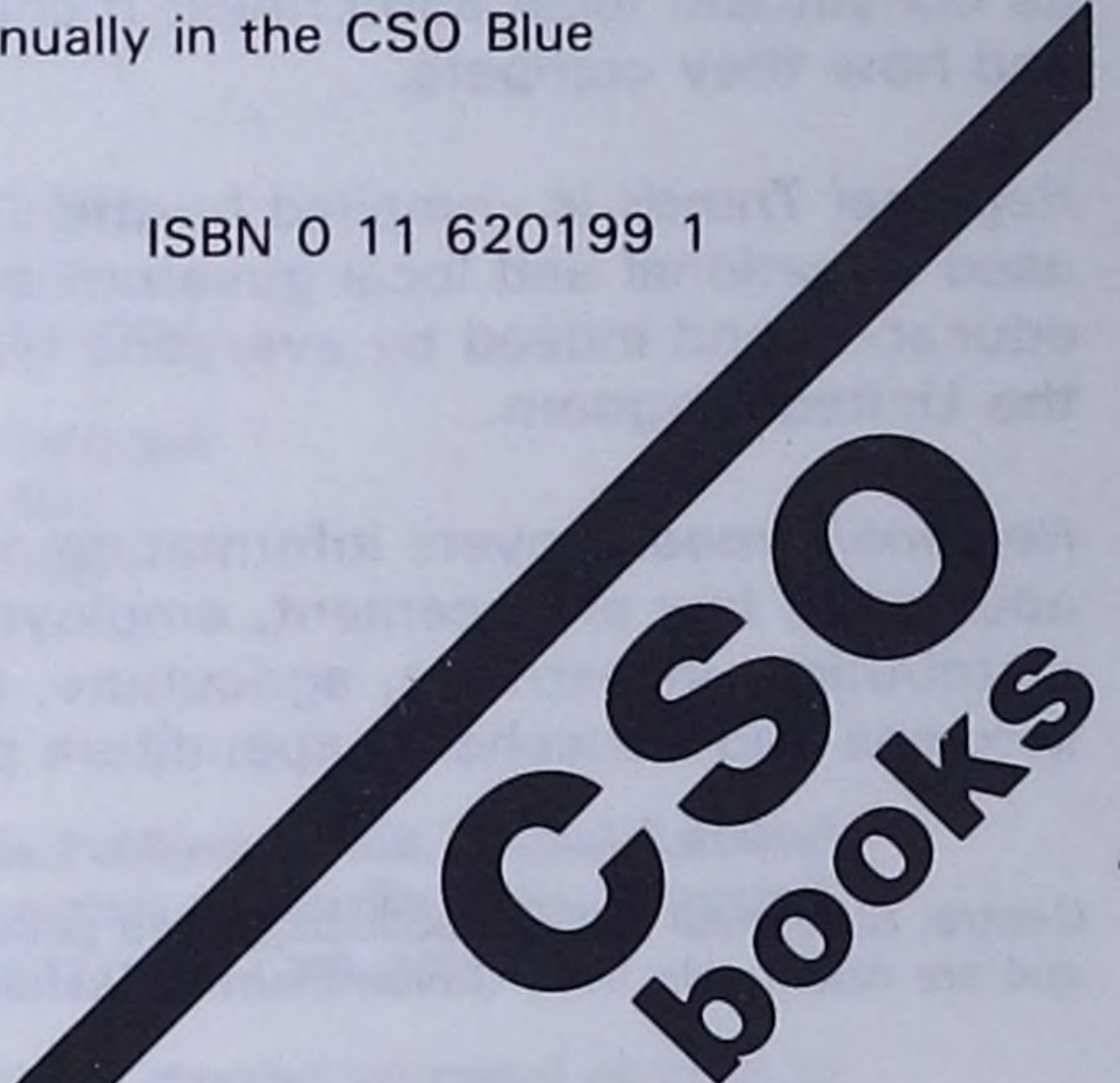
UNITED KINGDOM NATIONAL ACCOUNTS SOURCES AND METHODS

Sources and Methods is the definitive description of GDP and the national accounts. It is the essential reference book for users of official estimates of GDP, consumers' expenditure, capital formation and all other estimates with the national accounting system published annually in the CSO Blue Book, *United Kingdom National Accounts*.

Price £14.95 net

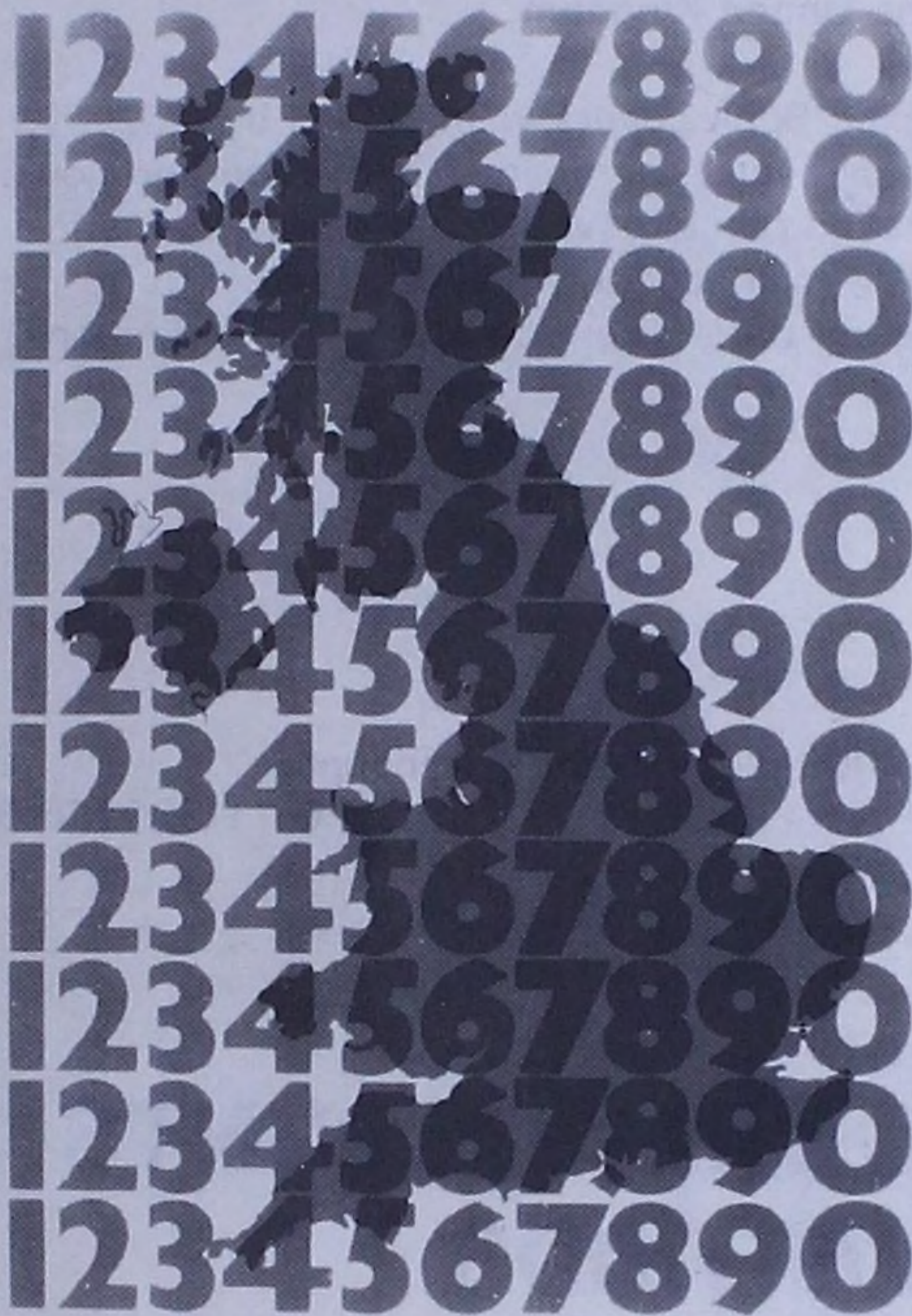
ISBN 0 11 620199 1

CSO publications are published by HMSO and are obtainable from Government bookshops and through good booksellers

The logo for CSO books, featuring the letters 'CSO' in a large, bold, sans-serif font, with the word 'books' in a smaller, lowercase sans-serif font below it. The logo is positioned in the bottom right corner of the page, partially overlapping a thick diagonal black line that runs from the bottom left towards the top right.

REGIONAL TRENDS

1986 Edition



Regional Trends 21

Price £17.50

ISBN 0 11 620153 3

Regional Trends with around 130 tables, and 50 maps and charts draws together a wide range of statistics on the regions of the United Kingdom. There is a descriptive profile of each region and its constituent local authorities. It shows how they are changing and how they compare.

Regional Trends is compiled by the Central Statistical Office and is widely used in national and local government, industry, market research, journalism, education and indeed by everyone who needs to know about the regions of the United Kingdom.

Regional Trends covers information on population, health, housing, education, law enforcement, employment, energy, production, distribution, investment, agriculture, forestry, transport, personal incomes and household expenditure patterns.

Central Statistical Office publications are published by Her Majesty's Stationery Office and are obtainable from Government bookshops and through booksellers.

Articles in recent issues of *Statistical News*

No. 68 February 1985

The Business Statistics Office after 15 years
Government statistics in the 1980s—a half term report
The use of automatic editing in the 1981 Census
Statistics Users' Conference on the Census of Population and associated social statistics
Integrity in the GSS
Heavier goods vehicles: first statistics
28 years in the GSS—in retrospect
Ethnic monitoring in the Civil Service—the problems of non-response

Ray Ash
Terry Orchard
J.D. Brant and Miss S.M. Chalk

Ian MacLean
GSS note
Peter Wilding
Stanley James
Frank O'Hara

No. 69 May 1985

The Scottish Office—centenary
State figures
Changing from a manual to a computer system—the lessons from aid statistics
Manpower forecasting for Royal Navy Officers—a microcomputer solution
Non-official statistics—the findings from the Report of a Survey
Trade Association statistics

Andrew Burnside
Sir John Boreham and Sir Claus Moser in conversation
Brian Hammond
Malcolm Bryant
Dr. D. Mort
Miss J.M. Hynard

No. 70 August 1985

The Home Office Statistical Department
The General Household Survey: its policy uses by Government
The development of a new register of businesses
Statistics of domestic proceedings in magistrates' courts, England and Wales, 1983

Rita Maurice
Maureen Bennett
John Perry
Lawrence Davidoff

No. 71 November 1985

The Overseas Development Administration
The Tenth Conference of Commonwealth Statisticians
A comparison of the census characteristics of respondents and non-respondents to the 1981 General Household Survey (GHS)
The use of statistical publications in the public library
Exposing Britain's industrial performance
Statistics at OECD—a view from the Economics and Statistics Department
A 1983/84 survey of house renovation grants in Wales

R.M. Allen
Deo Ramprakash

Irene Rauta
Alec Gallimore
Tony Buxton
Derek Blades
John Kinder and Susan Stansfield

No. 72 February 1986

Statistical work in the Department of the Environment
Using the Family Expenditure Survey
Family Expenditure Survey: a second study of differential response, comparing Census characteristics of FES respondents and non-respondents
The Institute of Public Finance Ltd - providing 'customised' statistical research services
Seychelles - an opportunity overseas
Using microcomputer graphics to project births in Scotland
The Statistics Users' Conference on financial statistics
Statistical 'stagiaires' in the EC

David Wroe
Bruce Buckingham, Michael J. Janes and Bernard Reeves

Bob Redpath

Phillip Ramsdale
Tony Williams
David Salmond
John Alexander
George Clarke

No. 73 May 1986

The Department of Employment - labour market statistics 100 years on
The International Labour Office Bureau of Statistics
Monitoring the effects of compulsory seat belt wearing
One hundred years ago
The Digest of Welsh Historical Statistics

Paul Dworkin
Ralph Turvey
Philip Hathaway
Tom Griffin
Owen Hooker

No. 74 August 1986

General Register Office of Births, Deaths and Marriages in Scotland
The Channel Fixed Link
Statistics of trade and industry - a bicentennial review
Pilot Register of Local Authority Research and Surveys:
a Practical Application of Information Technology
World crude oil prices - the statistical problems
Key Data: A new GSS publication

Charles Glennie
Geoff Reed
Fiona Deuchars

Roger Sellwood
Philip Rice
Tom Griffin

Copies of the above and earlier articles and also of Economic Trends articles may be obtained from the Publications Unit, Central Statistical Office, Room 72/3, Great George Street, London SW1P 3AQ, on payment of £1.50 per copy to cover postage and handling. The appropriate remittance should accompany each order. Cheques, etc., should be made payable to HM Treasury Votes Cash Account.

A classified list of Statistical News articles from the first issue to date may be obtained by sending a stamped addressed envelope to the CSO Publications Unit at the address given above.

Statistical News – a quarterly publication from CSO

Statistical News provides a comprehensive account of current developments in British official statistics to help all who use or would like to use official statistics.

Every issue contains two or more articles 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 out by government organisations, is closely related to official statistics. Appointments and other changes in the Government Statistical Service are also given. A cumulative index provides a permanent and comprehensive guide to developments in all areas of official statistics.



HMSO

1786-1986

Central Statistical Office publications are published by Her Majesty's Stationery Office and are obtainable from

HMSO Publications Centre

(Mail and telephone orders only)

PO Box 276, London, SW8 5DT

Telephone orders 01-622 3316

General enquiries 01-211 5656

(queuing system in operation for both numbers)

HMSO Bookshops

49 High Holborn, London, WC1V 6HB 01-211 5656 (Counter service only)

258 Broad Street, Birmingham, B1 2HE 021-643 3757

Southey House, 33 Wine Street, Bristol, BS1 2BQ (0272) 24306/24307

9-21 Princess Street, Manchester, M60 8AS 061-834 7201

80 Chichester Street, Belfast, BT1 4JY (0232) 238451

13a Castle Street, Edinburgh, EH2 3AR 031-225 6333

HMSO's Accredited Agents

(see Yellow Pages)

and through good booksellers

£3.75 net

(Annual subscription £14.00 including postage)

ISBN 0 11 620243 2

ISSN 0017-3630