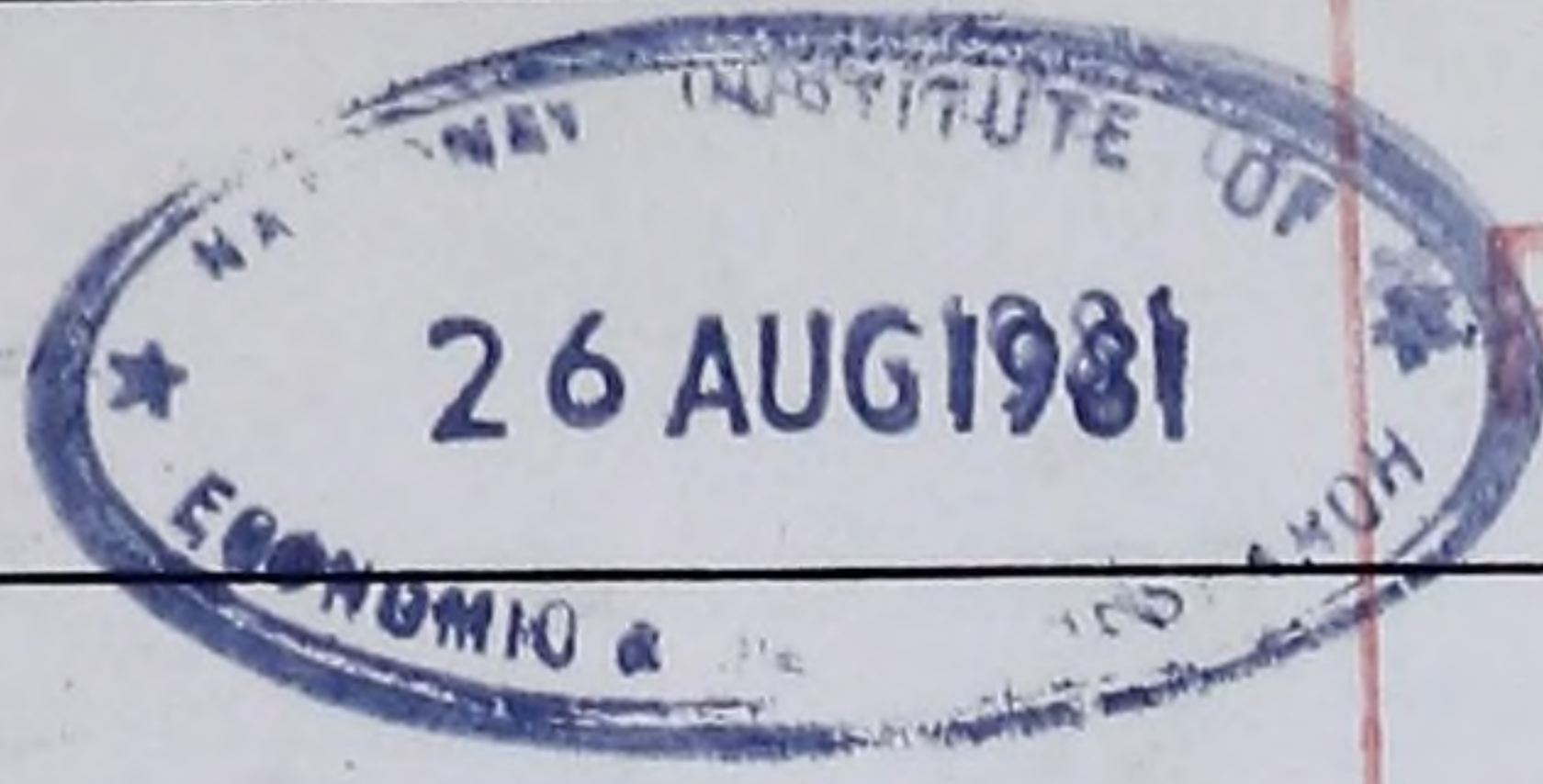


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STATISTICAL NEWS

Developments in British Official Statistics



A publication of the Government Statistical Service

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Note by the Editor

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

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

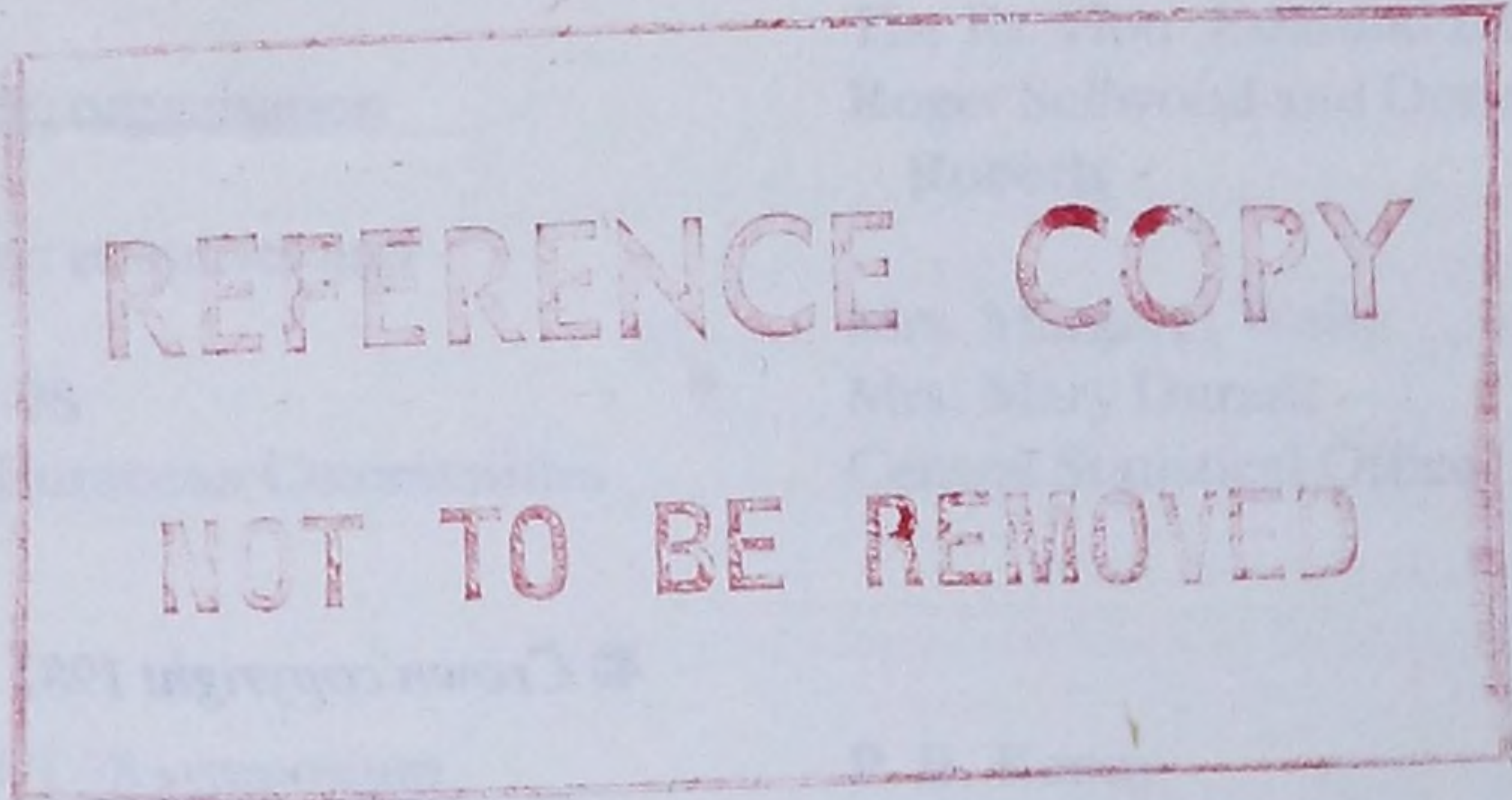
A cumulative index provides a permanent and comprehensive guide to developments in all areas of official statistics.

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

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Developments in British Official Statistics

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The Rayner Review of the Government Statistical Service

Summary of a special meeting of the Royal Statistical Society on 10 June 1981

Sir John Boreham opened the discussion at this special meeting organised by the Society to provide a forum for Fellows to express their views about the cuts in the Government Statistical Service (GSS), following recommendations in Sir Derek Rayner's report to the Prime Minister and the published White Paper.

As head of the GSS, Sir John Boreham welcomed the review as it demonstrated the need for government statistical information and the basic infrastructure of the GSS. The review aim was to improve efficiency and to reshape the GSS to meet changing needs.

The underlying policy behind the review was to look for reductions in the GSS as part of the Government's general aim to cut the size of the Civil Service as a whole; the outcome was a reduction of 25 per cent in manpower requirements. Three fundamental principles emerged from the 700 or so individual recommendations in the review reports. These were:

- to eliminate non essential work, which was to be achieved generally by reducing some of the detailed information collected;
- a reduction in checking and validation and an increased emphasis on sampling. This would introduce greater risks of error in some data;
- a more efficient use of labour and equipment reinforced by a continual scrutiny of the needs for, and most efficient way of, providing statistical information and support to government.

The response so far to the White Paper had been low; most interest had centred on the proposals for the Social Survey Division of the Office of Population Censuses and Surveys (OPCS). Sir John pointed out that these proposals were still the subject of discussion. He had set up a study (which should be completed by October) to look more closely at the implications of the recommendations for Social Survey in terms of manpower requirements, contracting work outside, the inter-departmental payment system, the tendering system and the consequential outcome for Social Survey's staff. He pointed out that there was no intention to reduce the level and quality of survey work below the needs of government. Some of the continuous studies would be reduced in scale; this included the General Household Survey and, in all probability, the Family Expenditure Survey and National Food Survey would be merged.

Sir John referred specifically to several of the recommendations in the Rayner report¹ and White Paper² which he felt were of special significance. He drew attention particularly to the following recommendations made to the Prime Minister by Sir Derek Rayner and reproduced in the White Paper (Annex 2).

2. *The Head of the Government Statistical Service should have a specific responsibility for keeping up the pressure for technical improvement and for disseminating knowledge about cost-effective techniques. He should work closely with departmental management and statisticians. I suggest you might ask him too to make a brief annual report on improvements made in methods and processes across government, and savings achieved thereby.*

5. *The Central Statistical Office and the Central Computer and Telecommunications Agency should keep an eye on regular cross-service comparisons of (computing) costs and productivity. Departments should require computer management to cost computer work consistently and to provide customers with the costs of their various jobs.*

17. *I endorse the more rigorous approach to the cost of dissemination of statistics which most of the reports clearly thought would be justified.*

23. *Ministers and their senior officials need a regular statement – annually seems about right – of how much has been spent in providing which statistical activities, with what result, what productivity gains there have been, and how much it is planned to spend next year. A good start has been made, for example, with the Central Statistical Office 'statistics budget'. With this kind of information senior managers can watch how the costs of a service develop, ask whether the value added by the service is commensurate with the costs, and restrain any tendencies for empires to grow.*

29. *The aim should be to contract out all ad hoc social surveys where private sector costs are less than those of the Office of Population Censuses and Surveys (OPCS) and surveys by OPCS's Social Survey Division should be on payment terms from existing departmental budgets.*

30. *Modifications should be made to key multi-purpose social surveys to increase value for money.*

1. *Review of Government Statistical Services: Report to the Prime Minister by Sir Derek Rayner* (December 1980) (Price £2.90 net) available from the Press and Information Office, Central Statistical Office, Great George Street, London, SW1P 3AQ.

2. *Government Statistical Services* (Cmnd 8236) (HMSO) April 1981 (Price £2.10 net)

He also placed great stress on the general philosophy underlying paragraph 10 of the White Paper.

The Government is determined to build on the success of the reviews. The key questions will go on being asked and the themes applied by those in Departments who use statistics and in the day-to-day management of statistical services. In particular:

- what happens to the statistics collected, paying particular regard to the main uses to which they are put in Government itself?*
- what do they cost to provide?*
- is the value of the statistics commensurate with their costs and can it be improved?*

One of the aspects of the review which he particularly welcomed was contained in Annex F of the Rayner Report. This was a statement by the Prime Minister which gave the head of the GSS a wider brief to ensure that the statistical service continually provided good value for money. The statement includes the following paragraph.

For the future, the Prime Minister would like the Director to take a particular responsibility with regard to securing value for money. For example, as professional head of the GSS, he should keep before the Directors of Statistics in Departments the scope for economies in their operations and the opportunities provided by statistical methods for reducing costs and improving value for money in Government more generally.

Sir John Boreham felt that the review fell within the spirit of the closing remarks made by Sir Claus Moser in his Presidential Address to the Society in November 1979. Sir Claus had included the following main challenges facing the GSS in the years ahead. These said Sir John Boreham were the challenges which were now being taken up.

- (a) how to go on improving economic and social statistics, and in particular improving timeliness of key economic series and the interpretation of social statistics and indicators;*
- (b) how to develop ways of measuring accuracy and of assessing what accuracy is required for key series and accounts;*
- (c) how to build a system for establishing and implementing GSS priorities to ensure flexible and overall response to changing needs;*
- (d) how to develop the analytical and interpretative role of the GSS;*
- (e) how to recruit more applied statisticians, with a subject-matter rather than technique orientation;*

(f) how to achieve a truly outward-looking role of the GSS towards the rest of the community as well as government;
(g) and last, but very much not least, how to ensure that statistical integrity always wins the day.

During the period that Sir Claus Moser had been head of the GSS the policy had been to expand the service. The current climate was one of contraction. This could be used to improve efficiency and cost consciousness in ways that, in Sir John Boreham's view, were still in line with needs of government and the general principles established by Sir Claus.

The main speakers invited to contribute to the discussion were Professor Peter Townsend (University of Essex), Miss Alison Macfarlane (Perinatal Epidemiology Unit, Oxford) and Sir Claus Moser. Professor Harvey Goldstein (Institute of Education) was asked to draw some of the main threads together towards the end of the meeting. The other speakers included:

Dr. Jeremy Bray, MP
Mr. R. Thomas
Mr. F. E. Whitehead
Mr. P. Redfern
Mr. Gwilym Roberts, MP
Mr. P. Allin
Mrs. J. Cox
Dr. D. J. Pike
Dr. F. T. Pearce
Mr. J. Chapman
Mr. J. Barter

Many of the speakers endorsed Sir John Boreham's view that a review of the Government Statistical Service was to be welcomed. But there was concern that the Rayner review had merely approached the task with the aim of cutting. As one speaker put it, "it was a cost/benefit exercise without adequate study of the benefits". There had been little or no consultation with bodies outside government about the use and value to them of the GSS. Moreover, a proper review would have looked at the economic, social and political consequences of reshaping the GSS. It should not have been tackled simply as an exercise to improve efficiency.

A number of speakers were alarmed about the political consequences of the cuts. It was felt that the reduction of information was a reduction in democracy. Government needed to be accountable to Parliament and the people and the provision of statistical data was one means of assessing the impact of government policies. A strong case could be made for expansion of statistical information to evaluate policy. Most Western countries spent more than Britain on the provision of

research and information and were expanding these functions.

The question of objective criteria for deciding the shape, scale and role of the GSS which would serve all governments was raised at the meeting. This pointed, in the view of several speakers, to the establishment of a National Statistical Council – an idea being pursued by the Society – which could advise on and keep under review the statistical needs both inside and outside government. It was also suggested that the Society press for a Government Commission to undertake a more comprehensive review of the GSS, taking into account the wide range of benefits to outside users.

The generally negative tone of the Rayner review was criticised. The axioms were ‘to get rid of’, ‘to limit to the essential’, ‘to minimise the amount of data’, and so on. This was a misunderstanding of the role of the GSS. One of its fundamental aims should be to stimulate the use of data and statistical information. To do that effectively the GSS had to collect wide ranging information that exceeded current needs and demands. A restriction to immediate problems and needs of government could be very harmful in the longer term as needs change.

Another of the underlying philosophies of the Rayner review – the restriction of GSS activities to those of direct concern within government – also attracted much criticism. It was felt that the GSS must be responsible too for providing information to industry, researchers, academics, trade unions and – for reasons of accountability – to the public at large. This wider role of the GSS had been severely threatened by the review. The lack of consultation with outside bodies including local authorities, the National Health Service, industry and a wide range of user organisations (such as the Equal Opportunities Commission) was widely condemned.

It was pointed out that much of the government’s statistical data were collected by or from these outside bodies. The government had a responsibility, therefore, to provide feedback. The point was also made that since government had a monopoly over certain data collection operations that could not be undertaken by others (e.g. the population census) it had a special responsibility to share its information with outside users.

Dissemination of statistical information would not be limited or restricted, Sir John Boreham had stated in his opening remarks. However, it was pointed out that the new pricing policy would increase substantially the cost to outside users. This would have the effect of reducing access and availability.

There was concern too that the review had introduced a shift in power away from government departments to the Central Statistical Office (CSO), and to the head of the GSS in particular. This undermined departmental management and would bring about a less efficient

service. Allied to this were a series of recommendations that the CSO should keep the GSS under continual review. This would introduce a new and complex bureaucratic structure that would be both harmful and costly to government.

Several speakers pointed to the lack of argument and support within the reports for some of the recommendations. There was no clear statement of the implications of many of the recommended cuts; what data would be lost and what cost savings would be achieved. The probability of losing the 1986 Population Census was one example given both of lack of consultation and of a recommendation that was not supported by argument and evidence. The report failed to give a balanced picture of the wider ramifications in real cost terms of the omission of a mid-term census.

It was felt that the Royal Statistical Society could fulfil a useful role in cataloguing the losses that would arise from the cuts in the GSS. Several possible examples were mentioned during the course of the meeting, including data on wealth and income distributions and employment statistics. The implications of the reduction in checks and validation particularly for time series data, was another topic on which the Society should comment.

Several speakers felt that a more positive approach would be for the Society to review more objectively the data requirements within various fields (for example, to provide social indicators, to monitor nutrition). This could be one of the roles of the National Statistical Council if this were to be established.

The Social Survey Division of OPCS was discussed by several speakers. There was a concern that by removing or reducing the *ad hoc* survey work standards would fall generally. The infrastructure was important to maintain quality. The view was also expressed that a switch to a direct payment system would inevitably lead to a reduction in survey work. It was pointed out too that the secondary uses of survey data (e.g. through the SSRC Survey Archive) should be taken into account when assessing costs of data provision.

In conclusion, the general mood of those who contributed to the meeting was that although a review of the GSS was to be welcomed, this particular review was poorly conducted and too narrow in its objectives. Similarly, the aim of greater efficiency and value for money within the GSS was to be applauded but it should not have been the only or even the main criterion for the review. It was felt that the Royal Statistical Society should take a constructive lead in collaborating with the GSS to look at user requirements and statistical information needs inside and outside government.

(continued on page 4)

Sir John Boreham comments as follows:

The meeting was valuable and important; the general tone of the discussion was concerned and serious. It is true that the new policy of searching for better value to the Government from statistical resources will reduce what can be given to other users of statistics. All of us in the GSS must do what we can, given the reduced resources we shall have, to maintain public accessibility to the statistics we produce. The benefits flowing from all of us having greater cost-consciousness and engaging in a determined search for greater efficiency will outweigh the unavoidable reductions in our service to non-government users.

Three errors in the discussion are worth correcting:

a decision about a 1986 census will be made in a year or two; there is still time for arguments to be developed and expressed;

data on distributions of income and of wealth will continue to be provided but less frequently than before;

employment statistics will continue to be provided but the census of employment, last taken in 1978 will be taken every three years instead of annually (up to 1978).

The all stocks index

Martin Stevenson*, Statistician, Business Statistics Office

I Introduction

This article describes the methodology of the 'all stocks' price index, which has been developed by the Department of Industry at the request of the Inland Revenue. The index provides an indicator of movements in the price of stocks (of materials and fuel, work in progress and finished goods) held by businesses, and is used for the revised scheme of stock relief which has been incorporated in the 1981 Finance Act. The article is in two parts. The first is concerned with the statistical methodology of the all stocks index, while the second presents its calculated values over the period since January 1974.

II Methodology of the all stocks index

The general approach

The objective in compiling the all stocks index was to produce the best possible indicator of movements in the price of all business stocks, subject to data and resource constraints and the fact that the index has to be produced monthly in a timely fashion. The approach used has effectively been to combine separate monthly price indices for the large number of commodities held as business stocks throughout the economy with a fixed set of weights reflecting as closely as possible the composition of these stocks in value terms in a particular 'base' period. Indeed because the detailed commodity price indices from which the aggregate index is built up generally relate to current price quotations, the all stocks index measures changes in the current replacement cost of a fixed basket of business stocks.

The base period and weighting pattern

The base period which has been selected initially for the all stocks index is the end of 1974. However, for the sake of consistency with the majority of economic series the index is referenced to the average for the year 1975. Because of this difference between the base and reference periods it is necessary to ensure that the weights used for calculation purposes are composed of stock quantities in the base period revalued to reference period prices i.e. stock quantities at end-1974 expressed at average 1975 prices. This concept is sometimes refer-

red to as the 'stock volume' at end-1974, and this convention has been adopted here. So that the index does not come to reflect the price movements of an unrepresentative selection of commodities, it is intended to rebase at regular intervals. On current plans the index will be switched to an end-1979 base period, with 1980 as the reference period, towards the end of 1983.

One difficulty in deriving the weighting pattern for the all stocks index is that the range of data on stocks held in the United Kingdom economy is very limited; for example, typically all that is available is the total value of stocks held by particular industries, with no commodity detail other than a breakdown by type of asset (i.e. materials and fuel, work in progress and finished goods). In these circumstances the weighting pattern can only precisely reflect the recorded distribution of business stocks between industries, while the detailed commodity weights below industry level have to be largely estimated. Thus instead of attempting to compile the all stocks index by directly weighting together detailed commodity price indices, an intermediate level of aggregation has been introduced whereby initially separate stocks price indices for individual industries are constructed from the detailed commodity information, and then the industry-specific indices are combined to produce the aggregate index. This two-stage approach has the practical advantage of enabling considerable use to be made of the existing industry-specific stocks price indices, based on an established methodology, which have now been published for several years in *Price index numbers for Current Cost Accounting*¹. However the coverage of these published indices has so far been largely restricted to the manufacturing and distributive sectors, and elsewhere it has been necessary to compile industry-specific indices for incorporation into the all stocks index.

A summary of the weighting pattern which has been used to compile the all stocks index, based on end-1974 stock volumes, is shown below:

Industrial sector	Percentage weight in all stocks index
Agriculture	6.3
Mining and quarrying	0.3
Manufacturing	59.1
Construction	4.6
Gas and electricity supply	1.5
Transport and communication	0.8
Wholesale distribution	13.1
Retail distribution	9.9
Services	4.4

*The author gratefully acknowledges the contributions made to the construction of the index by colleagues in the Department of Industry and other departments. The development work on the index took place under the direction of Mr F. A. Fitzpatrick.

The weights are largely in accordance with the data underlying the stockbuilding figures in the national accounts, which are calculated from changes in stock volumes (see, for example, Table 12.3 of the 1980 National Income Blue Book²). A more detailed weighting pattern at industry level is shown at Annex A, with the industries classified according to the 1968 version of the Standard Industrial Classification³. For the stocks price indices which are already published, details of the commodity weighting pattern are given in the annual edition of *Price index numbers for Current Cost Accounting*. In certain other cases further information can be made available on request. A summary of the approach adopted to compile the industry-specific indices within each broad sector is given in the following paragraphs.

Agriculture

For this sector, representing around six per cent of the recorded value of business stocks, it was necessary to compile separate price indices for stocks of materials and fuel (mainly fertilisers and feedingstuffs), work in progress (livestock) and finished goods (cereals), and then to combine these into a single index. For the materials and fuel stocks price index, the commodity weighting pattern was derived from information on stock volumes at the end of 1974, and the detailed price indicators were selected from the components of the agricultural price index⁴. In the case of work in progress and finished goods it was decided to adopt two aggregate price indices from the agricultural price index as the appropriate stocks price indices. These were 'animals for slaughter' in the case of work in progress, and 'farm crops and horticultural products' in the case of finished goods. Since the weighting pattern for each of these indices takes into account changes in the monthly pattern of sales, their use to represent agricultural stocks price indices involves the assumption that the monthly commodity pattern of stocks is similar to the monthly pattern of sales. One other point is that these indices measure changes in market prices, and so reflect changes in farmers' profit margins as well as the costs of production.

Finally the overall agricultural stocks price index was derived by combining the components for the three specific types of asset with weights reflecting the end-1974 stock volume in each category. One point about these weights is that agriculture is the only area where the figures used to derive the weighting pattern for the all stocks index differ slightly from the figures on stock volumes which underlie the estimates of stockbuilding in the national accounts. This is because a number of stockable items are not included in the national accounts figures for this sector, either because of measurement difficulties or because stock changes are likely to be

small. However it was possible to make estimates of the end-1974 stock volumes of the items not covered in the national accounts figures, and as a result the weight of agriculture in the all stocks index was increased by around one percentage point.

Mining and quarrying

This sector represents only one-third of one per cent of business stocks. Two industry-specific stocks price indices were developed, the first for coal mining and the second for 'other mining and quarrying'. The approach adopted was firstly to compile separate stocks price indices for materials and fuel and then to combine these with the existing indices for finished goods to produce the industry-specific all stocks indices. The detailed methodology is the same as that for manufacturing, which is explained in the next section.

Manufacturing

The important manufacturing sector accounts for nearly sixty per cent of the recorded value of business stocks. A comprehensive set of stocks price indices has been compiled for some time, using the methodology described in a note available on request from the Department of Industry⁵. The approach is to construct separate materials and fuel and finished goods stocks price indices for each of the one hundred and fifty or so census industries within manufacturing (generally a Minimum List Heading of the Standard Industrial Classification). The commodity price indicators which have been adopted for these indices are selected from components of the wholesale price index family⁶, which are calculated from price quotations for over 10,000 closely-defined materials and products representative of goods purchased or sold by manufacturing industry. In the absence of a product breakdown of stocks, the commodity weights are based on either the pattern of purchases (in the case of materials and fuel) or sales (in the case of finished goods), after excluding non-stockable items such as gas and electricity. Thus the assumption is made that at the census industry level the commodity breakdown of purchases and sales of stockable items is the same as that for stocks of materials and fuel and finished goods respectively. These detailed indices are then aggregated up to around thirty industry groups, using the end-1974 stock volumes of each asset held by the particular industries as weights.

One difference between the existing methodology and that adopted for the all stocks index concerns the treatment of stocks held as work in progress. Under the established methodology, a special work in progress stocks price index is derived at the industry group level by combining past materials and future finished goods prices, and then the industry-specific all stocks price

indices are calculated by weighting the indices for the three types of asset by their respective stock volumes at the end of 1974. This treatment would have been adopted for the all industry all stocks index were it not for the fact that it leads to a considerable lengthening in the period of time for which the industry-specific indices have to be held provisional. Since the work in progress and finished goods stocks price indices show only slightly different movements over particular twelve-monthly periods, and are very similar in the longer term, the latter index has been adopted as a proxy for the former in the context of the all stocks index.

There are two final points to note on the stocks price indices for the manufacturing sector. The first is that the stocks price indices for finished goods are reflecting movements in market prices, and hence will include changes in manufacturers' profit margins as well as the costs of production. The second point is a more specific one, relating to the absence of any reliable output price indicators for aerospace products. As a result, it is not possible to construct a separate finished goods stocks price index for the aerospace industry, and so it has been assumed that movements in the price of stocks of both finished goods and work in progress are identical to movements in the materials and fuel stocks price index.

Construction

The construction industry holds just under five per cent of the recorded value of business stocks, mainly in the form of work in progress or finished goods. Unfortunately it was not possible to make use of the construction output price indices⁷, since these can only be calculated quarterly. Instead use has been made of a monthly index of the cost of new construction, which is designed to measure the average change in the cost of new building work in general, and is compiled by combining indices for contractors' material and labour costs. Both the cost of new construction index and the output price index for all new construction work have shown similar long term movements.

Gas and electricity supply

These industries account for one and a half per cent of business stocks, and price indices for their non-fuel stocks have been compiled for some time from wholesale price indices in the same manner as the indices for stocks held by manufacturing industry. Since the gas industry's fuel stocks at end-1974 were small enough to be ignored, the non-fuel stocks price index was adopted as that industry's all stocks index. The electricity industry's all stocks price index was produced by combining the index for non-fuel stocks with a specially constructed fuel stocks index, based on the price of heavy fuel oil and power station coal, with weights derived from end-1974 stock volumes.

Transport and communication

This sector accounts for less than one per cent of the recorded value of business stocks. Industry-specific stocks price indices for both railways and postal services and telecommunications have been compiled for several years, although they have not been published. Both are based on components of the wholesale price index family, although the latter also includes a labour cost variable.

Wholesaling

For this sector, accounting for thirteen per cent of business stocks, a comprehensive set of industry-specific stocks price indices has been compiled for several years under an established methodology. For the majority of these trades the indices are based on price indicators selected from the wholesale price index family, and the typical assumption is that wholesale distributors' buying prices are adequately proxied by manufacturers' selling prices. Additionally in the case of stocks of imported manufactured goods, it is frequently necessary to adopt the home price index as a proxy for an import price index. The detailed commodity weights reflect the estimated composition of stocks at the end of 1974. One exception to this approach is that the index for stocks held by wholesale distributors of beers, wines and spirits is based on the index for stocks held by off-licences, which is calculated from retail prices.

Retailing

Retailing accounts for just under ten per cent of recorded business stocks, and again a number of industry-specific stocks price indices have been compiled for some time using an existing methodology. The commodity price indicators which have been adopted for these indices are selected from components of the retail prices index⁸, which are calculated from approximately 150,000 separate price quotations for items representative of the goods and services purchased by the great majority of households. For the purposes of the stocks price indices, these retail prices are adjusted to exclude the effect of changes in VAT. The detailed commodity weights are based on the estimated composition of stocks. It should be pointed out that the prices being measured are selling rather than buying prices, and hence will reflect changes in retailers' profit margins as well as the cost to them of their stocks.

Services

The services sector accounts for over four per cent of the recorded value of business stocks. Three separate industry-specific price indices have been incorporated into the all stocks index, relating to banking and to the catering and motor trades. The index for banking is based entirely on the price of one commodity, silver bullion, which is held by bullion dealers and banks. The whole-

sale price index for the output of the food manufacturing industry has been adopted as the catering trade's stocks price index, while the index for the motor trades has been constructed from more detailed wholesale price indices in the same manner as the wholesaling stocks price indices described earlier.

Government trading activities

Since the all stocks index is designed to cover the stocks of all businesses which are liable to corporation tax, stocks held by government trading bodies, as opposed to nationalised industries, have been excluded. The most important of these trading activities from a stockholding viewpoint is forestry, since the Forestry Commission holds a large stock of growing timber.

III Calculated values of the all stocks index

The all stocks index has been calculated on a consistent basis monthly from January 1974, and this data is shown at Annex B. The index values should be interpreted as reflecting the average price level during each month, since this is the basis on which the majority of the component indices are calculated; the remainder reflect prices on a particular day in the middle of each month, which is no doubt a close approximation to the average monthly figure. Monthly and twelve-monthly percentage changes have also been calculated over the available data span, and these are shown at Annexes C and D respectively. A brief examination of the seasonal characteristics of the all stocks index, which is of interest for interpreting monthly movements, is reported at Annex E.

From an economic viewpoint, the all stocks index is rather different to other broad price indicators in that it does not measure prices at a particular stage of the economic process, since it includes raw materials as well as intermediate and finished products. However it is interesting to compare the all stocks index with indices such as the gross domestic product (GDP) deflator, the retail prices index and the output and input wholesale price indices for all manufacturing industry. Briefly the GDP deflator reflects the price of all goods and services moving into final demand, the retail prices index those goods and services purchased by households and the wholesale price index goods either purchased or sold by the United Kingdom manufacturing sector. Now clearly all these indices differ in terms of both coverage and weighting pattern. For example, only the all stocks index directly reflects the price of intermediate products, that is goods sold within manufacturing industry (e.g. man-made fibres), while on the other hand it does not include the price of non-stockable items such as gas and electricity, which feature prominently in all the other indices except the output wholesale price index. Thus it is not surprising that the comparison of movements in the

various indices at Annex F sometimes shows considerable differences in the short term, although the longer term trends are broadly similar for all the indices.

Finally the reader may be interested to know of the arrangements which have been made for publishing the all stocks index on a regular basis. The index is first published by means of an Inland Revenue Press Notice, and is subsequently included in *British business*⁹ and as Table 7 of *Price index numbers for Current Cost Accounting*. The first provisional value of the index is available in the month after the one to which it relates, with a revised provisional value in the second month, and the final figure within three months. The provisional index values are intended to provide a timely preliminary guide to the final figures, but will be subject to significant revisions from time to time because they are based on a considerable degree of imputation.

References

1. *Price index numbers for Current Cost Accounting*, No 14, July 1981, (HMSO) (Price £8.50 net)
Business Monitor MM17, *Price index numbers for Current Cost Accounting (Monthly Supplement)*, (HMSO) (Annual subscription £9.85 net)
2. *National Income and Expenditure, 1980 Edition* (HMSO) (Price £10.50 net)
3. *Standard Industrial Classification. Revised 1968* (HMSO) (Price 85p net)
4. 'Agricultural price indices for the United Kingdom' by L J. Angel, *Economic Trends*, October 1979 (HMSO)
5. *Methods of deflating manufacturing industries stocks*. Note available on request to Statistics Division 1E, Department of Industry, Room 247, Sanctuary Buildings, Great Smith Street, London SW1P 3DB.
6. *Studies in Official Statistics No 32, Wholesale price index: principles and procedures* (HMSO) (Price £5.60 net)
7. 'New price indices for construction output statistics', by A D Butler, *Economic Trends*, July 1978 (HMSO)
8. 'The unstatistical reader's guide to the retail prices index', *Department of Employment Gazette*, October 1975 (HMSO)
'Technical improvements in the retail prices index', *Department of Employment Gazette*, February 1978 (HMSO)
9. *British business* (HMSO) (95p net, weekly)

Weighting pattern for the all stocks index: 1975=100

<i>Minimum List Heading of the Standard Industrial Classification</i>	<i>Industry</i>	<i>Percentage weight in all stocks index</i>
001	Agriculture	6.3
101	Coal mining	0.1
102-109	Mining and quarrying other than coal mining	0.2
211-229	Food manufacturing	3.7
231	Brewing and malting	0.5
232, 239	Drink other than brewing and malting	2.2
240	Tobacco	1.3
261, 263	Coke ovens and manufactured fuel, lubricating oils and greases	0.2
262	Mineral oil refining	2.9
271-273, 275-279	Chemical industries other than paint	4.6
274	Paint	0.3
311-313	Iron and steel	2.9
321-323	Non-Ferrous metals	1.2
331-349	Mechanical engineering	9.0
351-354	Instrument engineering	1.2
361-369	Electrical engineering	6.0
370	Shipbuilding and marine engineering	0.8
380, 381	Motor vehicles	4.2
382, 384, 385	Other vehicles	0.4
383	Aerospace equipment manufacturing and repairing	3.3
390-399	Metal goods not elsewhere specified	2.8
411, 415-422, 429	Textiles other than cotton textiles, woollen textiles and textile finishing	1.8
412, 413, 423	Cotton textiles and textile finishing	0.7
414	Woollen textiles	0.7
431-433	Leather, leather goods and fur	0.2
441-449	Clothing	1.0
450	Footwear	0.3
461, 464, 469	Building materials	0.8
462, 463	Pottery and glass	0.4
471-479	Timber, furniture, etc.	1.5
481	Paper and board	0.5
482-489	Paper products, printing and publishing	2.1
491	Rubber and rubber products	0.6
492-499	Other miscellaneous manufacturing industries	1.0
500	Construction	4.6
601	Gas supply	0.2
602	Electricity supply	1.3
701	Railways	0.2
708	Postal services and telecommunications	0.6
810	Wholesale distribution: food and drink	3.0
811	wholesale distribution: petroleum products	1.4
812	wholesale distribution: non-food goods	4.1
820	retail distribution: food and drink	1.8
821/1, 821/4	retail distribution: non-food goods not elsewhere specified	1.9
821/2	Retail distribution: clothing and footwear	1.7
821/3	Retail distribution: household goods	2.1
821/5	Retail distribution: mixed retail businesses	2.4
831	Wholesale distribution: dealing in coal, oil, builders' materials, grain and agricultural supplies	1.1
832	Wholesale distribution: dealing in other industrial materials and machinery	3.5
861	Banking	0.4
884-888	Catering	0.7
894	Motor trades	3.3

ANNEX B

All stocks index: 1975=100

	January	February	March	April	May	June	July	August	September	October	November	December
1974	74.5	77.0	79.3	81.8	82.8	83.2	84.3	85.3	86.0	87.6	89.0	90.0
1975	93.0	94.2	95.8	97.1	98.6	99.5	100.4	101.8	102.6	104.1	105.5	107.3
1976	109.3	110.7	112.2	115.0	116.5	117.4	119.1	121.2	123.1	125.7	128.0	129.3
1977	132.3	133.7	135.3	137.3	138.1	138.6	139.1	139.7	140.4	141.1	141.6	142.2
1978	143.1	144.0	145.0	146.3	147.8	148.5	149.1	150.0	150.7	151.8	152.8	154.0
1979	156.4	158.0	160.6	163.4	165.0	167.1	169.5	171.3	173.2	175.9	177.5	179.5
1980	185.6	188.4	189.9	190.4	190.9	192.1	193.9	194.1	194.8	195.6	196.2	196.5
1981	198.6	199.8	201.7	203.8p	204.8p							

ANNEX C

All stocks index: monthly percentage changes

	January	February	March	April	May	June	July	August	September	October	November	December
1974		3.4	3.0	3.2	1.2	0.5	1.3	1.2	0.8	1.9	1.6	1.1
1975	3.3	1.3	1.7	1.4	1.5	0.9	0.9	1.4	0.8	1.5	1.3	1.7
1976	1.9	1.3	1.4	2.5	1.3	0.8	1.4	1.8	1.6	2.1	1.8	1.0
1977	2.3	1.1	1.2	1.5	0.6	0.4	0.4	0.4	0.5	0.5	0.4	0.4
1978	0.6	0.6	0.7	0.9	1.0	0.5	0.4	0.6	0.5	0.7	0.7	0.8
1979	1.6	1.0	1.6	1.7	1.0	1.3	1.4	1.1	1.1	1.6	0.9	1.1
1980	3.4	1.5	0.8	0.3	0.3	0.6	0.9	0.1	0.4	0.4	0.3	0.2
1981	1.1	0.6	1.0	1.0p	0.5p							

ANNEX D

All stocks index: twelve-monthly percentage changes

	January	February	March	April	May	June	July	August	September	October	November	December
1975	24.8	22.3	20.8	18.7	19.1	19.6	19.1	19.3	19.3	18.8	18.5	19.2
1976	17.5	17.5	17.1	18.4	18.2	18.0	18.6	19.1	20.0	20.7	21.3	20.5
1977	21.0	20.8	20.6	19.4	18.5	18.1	16.8	15.3	14.1	12.3	10.6	10.0
1978	8.2	7.7	7.2	6.6	7.0	7.1	7.2	7.4	7.3	7.6	7.9	8.3
1979	9.3	9.7	10.8	11.7	11.6	12.5	13.7	14.2	14.9	15.9	16.2	16.6
1980	18.7	19.2	18.2	16.5	15.7	15.0	14.4	13.3	12.5	11.2	10.5	9.5
1981	7.0	6.1	6.2	7.0p	7.3p							

Seasonal fluctuations in the all stocks index

In common with most other price indices, the all stocks index is not published in a seasonally adjusted form. However an analysis of the monthly series was undertaken to try to identify any pattern of seasonal fluctuation, that is variations which occur regularly in particular months of the year. This information is helpful for interpreting monthly movements in the published series, although of course twelve-monthly movements are unaffected by seasonality. The all stocks index was analysed by the multiplicative version of the widely used X-11 variant of the US Bureau of the Census Method II seasonal adjustment program. Essentially this decomposes the raw series into three elements – a trend-cycle, a seasonal and a random component. The seasonal component of the all stocks index for 1980, expressed as a percentage deviation from the trend-cycle, is as follows:

January	+0.2
February	+0.2
March	+0.3
April	+0.6
May	+0.3
June	+0.2
July	+0.1
August	-0.2
September	-0.4
October	-0.4
November	-0.5
December	-0.6

Thus the average absolute seasonal variation in the all stocks index is around one-third of one percent, and the maximum seasonal variation, recorded in April and December, is around twice the average. The most interesting feature of the seasonal pattern is perhaps the way the index regularly falls below trend in the second half of the year, and then rises above it in the first half, with a sharp catching-up process regularly taking place between December and January. This is not an entirely unexpected finding, since it is known that many manufacturers, for example, do wait until the turn of the year before adjusting their prices.

Comparison of percentage increases in different broad price indices

Price index	Period of Comparison	Q4 1975	Q4 1976	Q4 1977	Q4 1978	Q4 1979	Q4 1980	Q4 1980
	on Q4 1974	on Q4 1975	on Q4 1976	on Q4 1977	on Q4 1978	on Q4 1979	on Q4 1979	on Q4 1974 Annual rate
All stocks index	19	21	11	8	16	10	14	
GDP deflator	23	12	11	11	16	18	15	
Retail prices index	25	15	13	8	17	15	16	
Wholesale price index: output of all manufactured products	20	18	16	8	16	13	15	
Wholesale price index: materials and fuel purchased by manufacturing industry	22	26	2	3	25	11	14	

Environmental pollution statistics: availability and use

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Introduction

For many years statistical information on environmental pollution has been collected by a variety of organisations for their own purposes but, only recently, have overall statistics on the main trends been brought together in a co-ordinated way for regular publication. In early 1979, the Department of the Environment (DOE) published the *Digest of environmental pollution statistics* drawing upon information scattered through a large number of often very technical and sometimes not readily accessible reports. Further issues of the Digest have been published annually since then. The data included come from sources ranging from the national surveys on air pollution and river pollution to *ad hoc* surveys on lead in drinking water and exposure to noise. Sources and interpretative guidance are fully footnoted for the more specialist reader to consult. Trend data are grouped by environmental sector (air, water, etc.) and show changes in emissions and concentrations of pollutants together with, where possible, the resulting exposure, and abatement measures taken. Thus the Digest provides the basis for a review of trends, and the availability of data relating to them, in the general environment; the working environment is not dealt with in the publication.

tributor to concentrations of smoke being the domestic coal-burning open fire. *Sulphur dioxide* is released when fuels which contain sulphur, predominantly coal and oil, are burned. Most is generated by stationary fuel-burning sources, especially power stations – the total sulphur dioxide emissions from traffic make up only about 1 per cent of the whole.

Very few air pollution data are collected directly by DOE. Extensive monitoring programmes for smoke and SO₂ are carried out by Warren Spring Laboratory (WSL). In co-operation with local authorities, WSL operate a network of about 1200 sites which provide daily measurements of ground-level concentrations, predominantly in urban areas. Emissions of these pollutants are calculated by applying factors to national fuel consumption data.

Table I shows that total emissions of smoke and average concentrations in urban areas have fallen by about 80 per cent since 1960, primarily due to the introduction of smoke control areas and changes in fuel use, with consumers switching from coal to gas and electricity. Total SO₂ emissions were fairly constant through the 1960s, but after 1970 they fell by about 16 per cent and have recently been roughly stable. Average urban concentrations have fallen by about 50 per cent since the early 1960s. Although emissions from power stations and refineries have risen since 1960, their overall effect on ground-level concentrations has been greatly reduced by better means of dispersal, e.g. higher chimneys. Concen-

Air pollution

The two most widely used indicators of air pollution have been smoke and sulphur dioxide (SO₂). *Smoke* arises from incomplete combustion, the most significant con-

Table I

Smoke and sulphur dioxide: index of trends in emissions and concentrations in the urban atmosphere – United Kingdom 1960–1979

	Emissions index (1970=100) ¹				
	1960	1965	1970	1975	1979
Smoke ²	243	160	100	54	49
Sulphur dioxide	93	98	100	84	87

	Concentration index ³ (1970/71=100)				
	1960/61	1965/66	1970/71	1975/76	1978/79
Smoke	252	155	100	57	46
Sulphur dioxide	140	118	100	70	65

1. 1970 figures are 0.72 million tonnes for smoke and 6.12 million tonnes for sulphur dioxide.

2. Emissions from coal combustion only.

3. The concentration index gives the best estimate of trends. It is based on annual average concentrations at about 500 monitoring sites.

trations are more dependent upon emissions from domestic, commercial and other industrial sources, and these fell by about 40 per cent over the period.

Subject to some annual fluctuations, this general decline in concentrations of smoke and SO₂ in the urban atmosphere occurred in all regions. As Table II shows, average daily levels of SO₂ in 1978/79 were highest in the commercial urban areas, most notably Greater London. Levels of smoke tend to be highest in areas with high population density if coal is still burned, that is, where smoke control action has not been completed. There was much less regional variation in 1978/79 than 1968/69.

Since 1976, WSL have monitored sixteen trace elements (including cadmium, lead, arsenic and copper) at urban sites in the United Kingdom, whilst the Atomic

Energy Authority at Harwell have continuously monitored similar elements at non-urban sites since 1972. Results from both surveys suggest that levels are well below those which might cause concern, and the results from rural monitoring which are available over a longer period show evidence of a downward trend.

Emissions from road vehicles make a major contribution to levels of air pollution in the centres of cities subject to high traffic densities; concentrations of pollutants such as nitrogen oxides, carbon monoxide and hydrocarbons have been found to be higher at the kerbside than at sites away from the road. Table III shows the emissions of pollutants from road vehicles, estimated from annual fuel consumption.

Table II

Smoke and sulphur dioxide: trends in national and regional average daily concentrations at urban sites 1968/69-1978/79

	Micrograms per cubic metre					
	Smoke			Sulphur dioxide		
	1968/69	1973/74	1978/79	1968/69	1973/74	1978/79
North	111	55	25	101	72	49
Yorkshire and Humberside	98	44	35	144	89	74
East Midlands	80	44	30	106	77	69
East Anglia	51	35	20	87	66	49
Greater London	46	36	24	152	118	82
South East (excluding Greater London)	39	27	17	81	64	51
South West	35	24	16	59	49	43
West Midlands	63	39	28	119	77	70
North West	110	49	28	149	93	75
England	74	40	26	124	84	66
Wales	40	30	18	56	69	49
Scotland	85	35	25	84	65	50
Northern Ireland	79	53	35	95	72	35
United Kingdom	74	39	26	118	81	62

The regional averages are not based on precisely the same sites, so the figures are not strictly comparable between years.

Table III

Estimates of pollutant emissions from road vehicles - United Kingdom 1970-1979

	Thousand tonnes					
	Carbon monoxide	Hydrocarbons ¹	Oxides of nitrogen	Sulphur dioxide	Smoke	Lead
1970	5,920	395	386	44	52	6.5
1971	6,219	414	402	46	54	7.3
1972	6,597	439	420	54	55	8.1
1973	7,026	468	449	51	59	8.4
1974	6,843	455	438	54	58	8.0
1975	6,695	445	428	51	57	7.4
1976	7,005	466	446	53	59	7.6
1977	7,193	478	457	54	60	7.4
1978	7,606	505	479	54	63	7.3
1979	7,751	515	490	55	64	7.3
1979: percentage of total estimated UK emissions	89	39	25	1	12	na

1. Including evaporative losses from the petrol tank and carburettor.

Emissions of carbon monoxide, hydrocarbons and the nitrogen oxides have increased with the growth in the number of vehicle miles. Although industry currently emits the greater proportion of nitrogen oxides and hydrocarbons the relative contribution of motor vehicle emissions to total air pollution is steadily increasing. Emissions of these three pollutants are subject to controls* although it will be some time before the full benefits are apparent. The increase in emissions of sulphur dioxide from vehicles is mainly the result of the general increase in fuel consumption during the 1970s, with diesel engines accounting for over 65 per cent of the total; however, for this pollutant, traffic emissions still only represent 1 per cent of the whole. More rigorous methods of measurement and control are being developed to reduce the amount of exhaust smoke emitted from vehicles in service.

Table III also suggests an increase in the estimated amounts of lead emitted from traffic in the early 1970s. However, in 1972, the government adopted the policy of making progressive reductions in the permitted amount of lead in petrol, with the aim of preventing an increase in total lead emitted, even though fuel consumption was

rising. This policy of staged reductions has seen the maximum permitted amounts fall from 0.84 grammes per litre in 1972 to 0.40 grammes per litre in January 1981; a further reduction to 0.15 is planned for 1985.

Water

(i) Freshwater

The nine water authorities in England and the Welsh water authority are responsible for monitoring the quality of freshwater. The main source of national information on rivers and canals is the River Pollution Survey, co-ordinated by DOE using information collected by the water authorities. The first survey was carried out in 1970, updated in 1971 and 1972; a second survey was carried out in 1975. Summary statistics are presented in Table IV. A third, the 1980 River Quality Survey, has been organised by the National Water Council in consultation with DOE. Results will be available later this year.

The system was set up to allow an assessment of river water quality and to measure improvement over time. River stretches were classified as 'unpolluted', 'doubtful', 'poor' and 'grossly polluted' according to chemical cri-

Table IV

River and canal water quality: trends in length by quality class: England and Wales 1970-1975

	1970		1972		1975	
	kilometres	percentage	kilometres	percentage	kilometres	percentage
Non-tidal rivers						
Class 1	27,370	76.2	28,082	78.1	28,037	77.6
Class 2	5,297	14.7	5,062	14.1	5,458	15.1
Class 3	1,724	4.8	1,526	4.3	1,449	4.0
Class 4	1,533	4.3	1,275	3.5	1,178	3.3
Total	35,924	100.0	35,944	100.0	36,123	100.0
Tidal rivers						
Class 1	1,388	48.1	1,432	50.1	1,422	49.6
Class 2	675	23.4	640	22.5	720	25.1
Class 3	485	16.8	423	14.8	424	14.8
Class 4	336	11.7	362	12.6	301	10.5
Total	2,884	100.0	2,856	100.0	2,866	100.0
Canals						
Class 1	1,127	45.4	1,198	48.7	1,233	50.7
Class 2	968	39.1	898	36.5	925	38.3
Class 3	219	8.8	239	9.7	177	7.3
Class 4	166	6.7	126	5.1	88	3.7
Total	2,479	100.0	2,460	100.0	2,413	100.0

Note:

Class 1=Rivers unpolluted or recovered from pollution.

Class 2=Rivers of doubtful quality and requiring improvement.

Class 3=Rivers of poorer quality requiring improvement as a matter of some urgency.

Class 4=Grossly polluted rivers.

The border-line between Classes 1 and 2 is not clear-cut and classification involves an element of subjective judgment. (DOE Classification used.)

*Carbon monoxide and hydrocarbon emissions are controlled under regulation 36 of the Motor Vehicles (Construction and Use) Regulation while the UN/ECE Regulation amendment 15-02 recently made the control of nitrogen oxides mandatory for vehicles first used on or after 1 April 1981.

teria. Stretches were allocated to these classes on the basis of a combination of water characteristics, such as biochemical oxygen demand, dissolved oxygen, turbidity, absence of fish life and frequency of complaints from the public. A revised classification system has been recommended for use in the 1980 River Quality Survey.

Overall, improvements have been made in the quality of rivers, but changes have been gradual. Obvious and severe pollution has largely been dealt with as is suggested by the declining percentage of river waters in the 'poor' or 'grossly polluted' classes. Information on some thirty or so principal pollutants is assembled nationally through the Harmonised Monitoring Scheme (HMS), where measurements are made by water authorities at key points in river systems to assess the load of pollutants received by estuaries from rivers.

Heavy metals in the environment are a general problem, but where these are present in drinking water special measures need to be taken. In particular, investigations in recent years of the amount of lead in drinking water have been carried out. In 1975 a national survey showed that 9 per cent of households in the United Kingdom had levels of lead in excess of 0.1 mg/litre (first draw samples), and just over 4 per cent exceeded this level for samples extracted during the day. (The World Health Organisation currently recommends a maximum limit of 0.1 mg for drinking water supplies that have not stood in contact with lead pipes over night.) A programme has been established to identify the problem areas and to deal with them either by suitable water treatment or by lead pipe replacement.

(ii) Estuarine, coastal and marine waters

Pollutants are introduced to the marine environment via rivers and from direct discharges to estuarial and to coastal waters, as well as by dumping from disposal vessels, and via the atmosphere. Oil pollution from tanker accidents and discharges of oil and other substances from ships and rigs add to the pollution. Information on pollutants entering the sea is obtained from monitoring carried out by the English and Welsh water authorities and Scottish river purification authorities, the Natural Environment Research Council and the Fisheries Laboratories of the Ministry of Agriculture, Fisheries and Food and the Department of Agriculture and Fisheries for Scotland. This monitoring has so far concentrated upon the known toxic, persistent and bio-accumulative group of chemicals – the heavy metals (cadmium, mercury, zinc, copper and lead), pesticides and polychlorinated biphenyls (PCBs), petroleum and its components; however, when the relevant provisions of the Control of Pollution Act 1974 are implemented, all discharges direct to estuaries or coastal waters will be controlled.

Information collected in connection with the Dumping at Sea Act 1974 suggests an increasing proportion of sewage sludge is disposed of at sea (in 1977, nearly 30 per cent was disposed of in this way); the 11 million (wet) tonnes dumped at sea in 1977 contained an estimated 21,000 tonnes of nitrogen, 5,000 tonnes of phosphorous, 5 tonnes of mercury (over half of which was disposed of in Liverpool Bay), 13 tonnes of cadmium and 226 tonnes of lead. River inputs and pipeline discharges also affect the levels of these substances found in the sea and the results of surveys carried out by the Fisheries Laboratories of England and Scotland indicate that there are some areas and some species of fish and shellfish in which the pollutant concentrations are higher than those generally found. However, the levels found in fish and shellfish taken for consumption in those areas do not constitute a hazard to health although they are high enough to warrant continued surveillance.

Oil pollution from tanker accidents around the United Kingdom are of concern because of their effects on the marine environment. The development of offshore oil resources has also introduced a new element of risk. Between 1970 and July 1980 there were twenty major oil spill incidents at sea which activated the Department of Trade's clean-up organisation, fifteen of which resulted in some coastal pollution around Great Britain. Table V (on page 16) is derived from the annual reports of the Advisory Committee on Oil Pollution at Sea, an independent organisation which carries out annual surveys of oil pollution incidents and their effects. Although the number and size of spillages fell between 1978 and 1979, the differences observed in the costs incurred by local authorities reflect the large expenditure in the Eastern England sector following the 'Eleni V' collision off the Norfolk coast in May 1978. This highlights the problems of interpreting trends when one incident, not necessarily reflect the large expenditure in the Eastern England sector following the 'Eleni V' collision off the Norfolk coast in May 1978. This highlights the problems of interpreting trends when one incident, not necessarily involving the largest actual spillage of oil, can have such an effect on the series. As in earlier years, most of the reported incidents in 1979 occurred on beaches in the South East and South West regions of England, and the North Sea areas of Scotland. *(Continued on next page)*

Table V

Oil spills: trends in the size, effect and cost of oil spills – Great Britain 1978–79

Division of coast	No. of oil spills reported		No. of spills ¹ over 100 gallons		No. of spills ¹ requiring clean-up		Cost incurred by reporting authorities (£000s)		Percentage of incidents with no perceived environmental damage	
	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979
North East England	38	15	5	2	38	10	10	2	57	50
Eastern England	33	21	6	–	24	6	805 ³	2	51	74
Essex and Kent ²	119	47	25	1	104	18	46	2	87	94
Sussex	9	27	3	2	6	10	5	7	78	83
Southern England	23	29	5	4	11	13	12	17	87	100
Devon	18	12	2	1	8	1	2	–	74	75
Cornwall	24	40	1	1	11	11	2	2	83	88
Scilly Isles	6	2	–	–	–	–	–	–	100	100
Bristol Channel and South West Wales	74	58	13	8	79	49	70	5	72	95
Lancashire and Western districts	32	22	5	2	27	20	3 ⁴	–	82	90
Cumbria	–	3	–	–	–	1	–	–	–	67
England and Wales	376	276	65	21	309	139	955	38	76	87
Western Scotland	20	9	8	3	13	9	3	3	90	89
Orkney and Shetland	15	35	4	6	13	15	3	25	43	82
North Sea oilfields	23	25	6	12	–	2	–	–	100	96
Eastern Scotland	73	80	8	6	25	19	5	3	70	79
Great Britain	507	425	91	48	365	184	966	69	75	86

Source: Annual Reports, Advisory Committee on Oil Pollution at Sea, 1978 and 1979

1. Excluding not known.

2. No return received from the Port of London Authority in 1979.

3. Includes an estimate of £800,000 for the 'Eleni V' incident. The Department of Trade's estimate for the Eastern England sector was £941,741.

4. Excludes £250,000 reported to be spent by the operator of the terminal as a result of the 'Littopia' incident.

Noise

Noise differs in several important ways from other pollutants. Unlike chemical pollution, there are no residual concentrations in the environment, and to a large extent noise is only subjectively offensive (although at sustained high levels, some human physical effects manifest themselves). Many people probably do not view noise as pollution, and this may account for its low ranking in some public opinion polls.

Over the last twenty years, not only has there been an increase in the number of vehicles on the road, but freight vehicles have become heavier and more powerful. There has also been a large increase in the volume of air traffic, particularly of subsonic jet aircraft. However, no statistics are available to show whether noise levels over the country as a whole have increased.

Most studies into the impact of noise pollution have been of the *ad-hoc* (one-off) variety, and as such describe noise levels at one point in time. The only national information available on a regular basis is the number of complaints made to Environmental Health Officers about non-traffic noise from various sources, shown in

Table VI; this table shows a consistent increase throughout the 1970s. Domestic premises were responsible for over 52 per cent of all complaints received in 1979, compared with only 25 per cent in 1971.

However, there are no comparable statistics on complaints about aircraft and traffic noise; complaints about these are normally made to highway authorities and airport operators, but, the major airports apart, statistics are not available on a regular and consistent basis. A survey of London residents carried out as far back as 1972 hinted at the magnitude of the problem: most people regularly heard traffic and aircraft noise, with traffic noise causing the greatest annoyance, including sleep disturbance for many people. Monitoring carried out around major airports in Great Britain suggests that despite the continual increase in the number of passengers carried and the number and/or size of aircraft using these airports, the number of local residents exposed to specified noise levels was unchanged, and if anything declined, in the 1970s; however such statistics do not and cannot represent individual exposure or reaction.

Table VI

Noise: trends in complaints received by Environmental Health Officers¹ in England and Wales: by source 1971–1979Numbers per million persons²

	1971	1972	1973 ³	1974 ⁴	1975	1976	1977	1978	1979
Type of source ⁵ :									
Industrial premises	132	135	168	179	192	182	186	220	} 461
Commercial premises	75	75	94	133	137	149	139	195	
Road works, demolition and construction	36	46	43	39	56	46	55	73	68
Domestic premises	80	90	91	149	165	175	335	420	586
All sources	323	346	396	500	550	552	716	908	1,115
Noise in street ⁶	na	22	18	33	48	33	22	29	32
Population (in 1,000) covered by responding local authorities	35,238	35,667	25,755	37,338	38,391	44,322	46,664	42,845	41,741
Percentage of total population	72	71	52	76	78	90	95	87	85

1. Public health inspectors before 1974.

2. Covered by responding local authorities; used to facilitate annual comparisons.

3. Lower response due to involvement of authorities in reorganisation of local government in April 1974.

4. Figures for 1974 are estimates based on statistics received for the 9 month period after local authority reorganisation on 1 April 1974.

5. Complaints received under Noise Abatement Act 1960, Section 1 and Control of Pollution Act 1974, Section 58.

6. Complaints received under Noise Abatement Act 1960, Section 2 and Control of Pollution Act 1974, Section 62; primarily includes the chimes of ice-cream vendors and unauthorised use of loud speakers.

Land-waste*(i) Derelict and despoiled land*

The last full Derelict Land survey was carried out in 1974 and suggested that there were over 43,000 hectares of derelict land in England, of which over 75 per cent was considered to justify treatment; a further 60,000 hectares of despoiled land were identified (active mineral workings, waste disposal sites, partially restored derelict land, etc.). A programme of reclamation is in progress, with priority (and higher grants) being given to reclaiming derelict land in the Assisted Areas (where 100 per cent grants are payable) and in inner urban areas. Figures collected between 1974 and 1978 showed the amount of derelict land reclaimed in each of those years but not newly created dereliction (e.g. redundant industrial installations and disused mineral workings not subject to restoration conditions).

(ii) Waste

The disposal of waste, whether domestic, commercial or industrial, is important in the environmental protection field because it can be a source of pollution, and because waste disposal sites require proper restoration, once operations have ceased, before they can be put to other beneficial uses.

In Britain the management of waste is conducted in two stages – collection and disposal. The size of the disposal problem and the possible dwindling of the number of sites available for the disposal of waste has led to the requirement in the 1974 Control of Pollution Act for all disposal authorities to prepare a waste disposal plan.

A survey is conducted by each authority to establish estimates of the present level and future trends in the quantities of all types of solid waste, and to estimate the likely need for disposal facilities, both at the authorities' own sites or at those of independent waste disposal contractors.

Since 1974, the amount of solid waste arising in England has been estimated from annual statistical surveys conducted by the waste disposal authorities (counties) and by surveys conducted by the collection authorities (districts or London boroughs). The broad composition of domestic waste is also known. The total amount of waste disposed of in England has increased marginally since 1974, to about 25 million tonnes in 1978/79. The amount of household and commercial waste delivered by the collection authorities and civic amenity waste has been relatively stable over the period at about 16–17 million tonnes, the rest representing local authority and industrial and commercial waste delivered direct to the disposal authorities. The public sector disposes of only a small proportion of industrial and commercial waste, although overall estimates of the quantities handled in the private sector will not be available until all the county waste disposal plans are completed.

Table VII shows the trends in the quantities of waste disposed of by the disposal authorities, and the quantities and costs of the different methods used. There has been a fall in recent years in the percentage of public sector waste disposed of by direct landfill, and this trend is likely to continue in the future.

Table VII

**Waste: costs of disposal and weights treated by waste disposal authorities in England: by method of disposal
1974/75 to 1979/80**

Method of treatment and disposal	Weight (000 tonnes)						Unit cost (£/tonne)					
	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80
Landfill untreated	18,165	17,412	17,666	17,824	18,177	18,659	1.0	1.5	1.8	2.2	2.6	3.2
Shredding/pulverisation – landfill	800	697	873	734	701	664	4.7	6.4	5.5	8.4	9.7	13.6
Direct incineration – landfill	1,613	1,940	2,245	2,504	2,358	2,343	8.9	11.1	11.5	12.6	13.7	16.3
Separation/incineration – landfill	418	346	374	290	177	158	9.3	12.1	12.8	15.7	15.2	21.0
Disposal by contractors	2,635	2,796	2,663	3,108	3,730	4,405	–	–	–	–	–	–
Other methods	112	79	144	216	119	559	–	–	–	–	–	–
Total disposed	23,743	23,270	23,966	24,675	25,262	26,788	–	–	–	–	–	–

Radioactivity

Table VIII gives the percentage of annual radiation dose received by the average member of the United Kingdom population. It will be seen that by far the greatest part of the dose comes from natural radioactivity and that the only sizeable dose from man-made radioactivity comes from medical irradiation. The discussion refers mainly to trends in radioactive discharges and their effects, which amount to only 0.1 per cent of the total dose to which the average member of the United Kingdom population is exposed.

Table VIII

**Radiation exposure of United Kingdom population
from various sources 1981**

Source	Percentage of total dose
Natural background	78.0
Medical radiation	20.7
Fall out from weapon testing	0.4
Miscellaneous (consumer goods and increased cosmic radiation in aircraft)	0.4
Occupation exposure	0.4
Disposal of radioactive waste	0.1
	100.0

Source: National Radiological Protection Board

(i) Gaseous

Concentrations of radioactivity from world-wide fall out, measured from samples of milk taken in the United Kingdom, showed little change in 1979 from the previous five years. Both the ratio of Strontium-90 to calcium and the average concentration of caesium-137 levelled out at less than 10 per cent of the 1964 peaks.

Concentrations around individual nuclear establishments have also shown little change in the 1970s. At Windscale, for example, there has been a small gradual decline in the ratio of Strontium-90 to calcium; the highest concentrations in milk in 1979 were recorded on

farms within 2 miles of the site, and although these were less than 3 per cent of the International Commission on Radiological Protection (ICRP) derived limits, they were about 4 times higher than concentrations on farms 20 miles away. There has been a steady increase in the concentrations of caesium-137 in milk on farms closest to Windscale; although they were well below 1 per cent of the ICRP derived limits in 1979, they were about 13 times higher than farms 20 miles or more away.

(ii) Liquid

Trends in discharges of liquid radioactive effluents to surface and coastal waters in the United Kingdom have been generally downward since the mid 1970s. The discharge of total alpha from Windscale, for example, fell in 1980 to about 17 per cent of the authorised limits, and was less than a quarter of the level recorded in 1974.

In 1978, the estimated average exposure per person to radioactivity in the United Kingdom through the consumption of fish was 2½ times the exposure in 1974. However, it should be noted that the 1978 average exposures were less than 1976 and they represent less than 1 per cent of the limit laid down by the United Kingdom national radioactive waste disposal policy. The group of persons with the highest exposure rate due to the Windscale liquid discharges are the members of the local fishing community who are also high-rate consumers of locally caught fish. In 1978, members of this group could have received, at most, 26 per cent of the ICRP dose limit; this is a fall from the maximum of 44 per cent in 1976.

(iii) Solid

The volume of solid radioactive waste disposed of at Drigg in 1980 was more than double the 1978 level, and at 54,000 cubic metres was more than 6 times higher than 1971. Measurements of airborne radioactivity at Drigg indicate that radiation levels remain very low.

The disposal of solid packaged radioactive waste into

the North East Atlantic Deeps has gradually increased over the years. For example, the alpha content of this waste, at 1381 curies in 1979, was 3½ times the level of 10 years earlier.

Human health and pollution

With the overall reduction in the levels of pollution, increasing attention has been paid to the investigation of the possible health effects of persistent exposure to low levels. The provision of clean water supplies and effective drainage and sewerage systems in the last century have eliminated 'epidemic' health problems (e.g. typhoid, cholera), whilst the large reductions in emissions of smoke and SO₂ have virtually eliminated the occurrence of the 'London smog' incidents which in the past were associated with above average morbidity and mortality rates.

Health effects of pollutants are rarely apparent in the short term. Since pollutants are often released in very small quantities, the concentrations found in the environment are consequently well below those at which biological effects have been detected in the laboratory. When effects are detected, they may not always be attributable to particular pollutants: they may be masked by the much wider variations in health which have socio-economic origins or which are known to be caused by other factors, most prominently diet, alcohol or tobacco. In addition, each individual is subject to doses of many different pollutants in the course of his life and little is known of the effect which a combination of pollutants may have. Available statistics do not allow all these effects to be identified. Most problems have been identified because suspicions were first raised by clinicians who noted local increases in the incidence of particular conditions and identified the association between the effect and the use of, or exposure to, a particular substance.

There are some substances – e.g. lead, mercury, cadmium – which occur naturally and are known to cause damage to health under certain circumstances and when present in high concentrations. Such substances are carefully monitored in a variety of ways designed to estimate the exposure of the public to them; the results of the monitoring are used to identify risks and *ad hoc* surveys mounted to investigate the effects on critical or sensitive groups. The general principle is adopted that exposure to these substances should be reduced wherever practicable.

Pollution control costs

Pollution control costs can be regarded as the cost of the additional resources which are used because of the existence of pollution control laws and regulation and accepted environmental standards. Since the controls exist, the costs can be established by estimating the

savings which would have occurred if they had not existed. Such information is useful to check that current spending reflects environmental priorities, and provide a backcloth against which to evaluate the likely costs and benefits involved in changes to control legislation. It has been estimated that pollution control costs are about 2 per cent of GDP in the United Kingdom.

One of the major problems that arises in attempting to measure total annual pollution control costs is the difficulty of determining a baseline from which to measure expenditure on control. Pollution control has been a factor in determining expenditure levels for a considerable time in the United Kingdom and much of it was incurred at the same time as expenditure for other purposes. Past decisions will affect present costs but there is no way of knowing by how much. Consequently it is impossible to measure total pollution control costs or to assess the absolute proportions of industrialists' costs attributable to pollution control. Only the effects of recent changes can be measured. This means that the calculated cost burden will tend to underestimate costs for those sectors where the bulk of pollution control took place in the past. However, such incremental costs are still useful in evaluation of new policy.

In trying to separate out present pollution control costs, the joint costs difficulty also arises – when pollution control problems are solved along with other non-pollution problems, for example in the case of sewers. In addition to acting as channels for the conveyance of foul sewage, sewers also carry away flood water. Any allocation of costs between these two functions must of necessity be arbitrary, therefore estimates tend to include or exclude the total cost. Definitions of what constitutes pollution control for costing purposes can also vary from study to study, and makes comparisons difficult.

The paucity of statistics has also hampered the calculation of pollution control costs. Whereas information is readily available about expenditures in the public sector, very little is known about expenditures in the private sector (industry and household). There are few data, for example, on private abatement expenditure by households, nor are there figures on the cost of the bulk of noise abatement, or the cost of using substitutes for products which have been banned in use. On the costs incurred by private industry, very little is known since surveys carried out in 1968, and it is doubtful whether industrialists would have the relevant information even if a data collection exercise were possible in the present climate. All this has meant that the emphasis so far has been on making broad estimates of pollution control expenditure for the country as a whole on the one hand, and on the other, dealing with industries on an individual basis. Table IX shows broad estimates of pollution

control costs in the United Kingdom in 1977/78. Total expenditure is spread equally between the public and private sector, whilst, noise apart, the split between the different pollution media is roughly the same.

Table IX
Estimates of the costs of pollution control
in the United Kingdom: 1977/78

	£ million				
	<i>Public</i>	<i>Private</i>	<i>Total</i>	<i>Percentage</i>	<i>Range of uncertainty</i>
Water	650	200	850	35	±10%
Air	10	580	590	24	±50%
Land	515	275	790	33	±25%
Noise	18	161	180	8	±35%
Total	1,193	1,216	2,410	100	±25%

Conclusion

For the most part, available statistics show that emissions of many of the pollutants that have been recognised as being of concern have declined steadily over the last decade with resultant reductions in the concentrations of those pollutants in the environment. There are, however, still some movements against the trend for individual pollutants, and these are being closely monitored.

The effect on human health of exposure to low levels of pollution cannot, in the main, be accurately determined from available statistics but progress towards a less polluted environment has been adopted as a prudent policy.

With the fall in pollutant emissions from easily identifiable point sources, the monitoring network is beginning to adjust to the difficulty of identifying the effects of small changes in levels and exposure. Monitoring in the future seems likely to focus on potential trouble spots or cover vulnerable sections of the community rather than collecting broad national information.

The value of having comprehensive data on pollution control costs, given the difficulties in interpreting information and the costs of collecting it, has not so far been demonstrated with sufficient force to convince government of the need to divert resources to work in this area. It seems likely that if in the future a decision is made to develop these statistics, work will begin with estimates of the costs of introducing new pollution control policies to industry.

Future developments in environmental pollution statistics are likely to give priority to developing statistical definitions and assembling data relating to the solution of specific policy problems. Work on a theoretical framework for environmental statistics is still at a pioneering stage and there is no agreement about the overall set of definitions needed.

Further information can be obtained from the *Digest of environmental pollution and water statistics No. 3 1980*.

References

- Digest of environmental pollution statistics No. 1 1978* (HMSO 1979) (Price £3.25 net)
- Digest of environmental pollution statistics No. 2 1979* (HMSO 1980) (Price £5.25 net)
- Digest of environmental pollution and water statistics No. 3 1980* (HMSO 1980) (Price £9.80 net)
- Annual Report of the Advisory Committee on Oil Pollution at Sea* (Prices, 1978 £1.00 net, 1979 £1.50 net) obtainable from ACOPS, 1 Cambridge Terrace, London NW1 4JL

A computer model for capital transfer tax

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Capital transfer tax¹ (CTT) was introduced in 1975 to replace estate duty (ED), to extend the taxation of lifetime gifts and to introduce a new tax regime for trusts. The yield in 1981/82 is estimated at £445 million of which more than 95 per cent is expected to be from transfers on death.

The rates of tax, thresholds for the rates, and some exemptions and reliefs were set when CTT was introduced, but they are reviewed regularly. When a change in the rates of tax, or the introduction of a new exemption or relief, is being considered, a number of different proposals are put forward. An estimate of the cost of each proposal is usually required and so it was necessary for Inland Revenue to develop a method of estimating these costs.

The need for a computer model

A fairly large data base had already existed under ED and was continued when CTT was introduced. This consisted of a sample, stratified by net capital value, of accounts furnished on death² including the amendments subsequently made to those cases involving a tax liability. The annual sample was approximately 35,000 cases. The data obtained from these sample cases were presented in tabular form and only the aggregates could be manipulated.

For ED costings the use of aggregated data worked well on the whole. However, with the introduction of unrestricted surviving spouse relief and new forms of other reliefs (such as the agricultural reliefs) the use of aggregated data proved inadequate as insufficient allowance could be made for overlaps between the reliefs. For CTT, costs of even simple changes (e.g. in the thresholds) estimated from aggregated data were not entirely satisfactory whilst more complex costings (e.g. of new reliefs for sub-groups of taxpayers) could not be done adequately.

Requests for complex costings and other additional information became more frequent and it was anticipated that the requests would continue. In addition it became necessary to project forward to allow for price changes of various types of assets, and in doing this the asset mix of estates had to be taken into consideration.

Therefore it was decided that a more flexible system was needed: a computer model. It was further decided that it should be on-line – the instant availability of the analyses would be important in getting results to Ministers when they were required.

Requirements of an on-line system

The primary reason for setting up the model was for Budgetary work but it was also envisaged that the model would be used for work on the analysis of the distribution of wealth and for the estimation of holdings of particular assets by individuals. The model would also make interrogation of the data file possible, for example to find out how many cases there are with combinations of certain assets. It was not possible to do this quickly from the main data base.

The main requirement was flexibility and so the data held are individual cases; a subsample of the data base. All the details of the selected cases are held on the file: designatory details e.g. age, sex; the amounts of each type of asset and liability; the tax due, etc.

However before the model could be developed a data base related to years of death had to be set up. The year of account information which was already available was not suitable for the projection of individual estates: a single year of account contains a mixture of years of death and the information about individual estates is often incomplete because different assets from an estate may be included in different years of account.

Selection of a sample

The cases selected for the on-line data file can be varied to suit the type of work that is being done. Currently a systematic sample of cases (stratified if required) can be selected according to the following criteria:

- Year of death
- Year of account
- Country
- Age (or age group)
- Marital status
- Range of net estate
- Presence/absence of variable item(s) (i.e. assets, reliefs, liabilities)

Samples based on a combination of criteria can also be selected e.g. all cases aged over 65 with business assets.

For general costings e.g. raising the thresholds, a systematic sample stratified by size of net estate from deaths in calendar year 1977 is currently being used. The

1. CTT is calculated on a 'slice' system related to the cumulative total of chargeable transfers made by an individual up to and including the occasion of his death. The tax payable in respect of any transfer results from a series of graduated rates on successive slices of this cumulative total.

2. There are about 600,000 deaths in the United Kingdom each year. Accounts are furnished in about half these cases.

sample size is just over 3,000 cases, which is the maximum size that will fit on one computer filestore file. If a larger sample was used the time taken to run the costing and other programs would be increased. (The current elapsed time for a computer run costing one change in rates and/or thresholds is about 15 minutes.)

Projection of the base data

In order for the results to be meaningful for Budgetary and fiscal purposes, the data have to relate to the future, in particular to the current financial year and to the next one. The information from assessments is always out-of-date (it can be several years before a CTT assessment is finally agreed) and so a data base which can be projected to simulate estates expected in later periods is necessary. The estates of people who have all died in the same period (e.g. the same calendar year) form a homogeneous base suitable for projection. For the work done prior to the 1981 Budget, data from deaths in 1977 (the latest year for which sufficiently complete data were available) were projected to fiscal year 1981/82.

The data file used on the model holds all the details of the composition of each estate. In theory, a different projection factor can be applied to each of the 41 types of assets and liabilities and 12 exemptions and reliefs. In practice the problem is to find appropriate factors to apply. Therefore certain assets and liabilities are grouped (broadly following the groupings used in the national accounts) and a factor is applied to each group.

Published indices such as the general index of retail prices, the FT index and an index of average house prices are used to revalue the assets and liabilities from the year of death to present values. Projecting from present values to the future, Treasury assumptions are used where possible (e.g. retail prices, house prices) but estimates of the changes in value of other assets, such as company shares, have to be based on a 'feel' for the markets.

Each item on the case record is multiplied by the appropriate factor and the new total net estate is calculated. This is done for each case in turn and then the cases are re-ranged according to the new value of the net estate.

Some investigatory work has been done on the sensitivity of the projected data to the assumptions made about changes in asset values. The percentage change in the value of houses between the base year and the year to which the data are being projected has the most effect on the distribution of estates. If this change in value has been estimated correctly, and the other estimated changes in value are broadly correct, then the estimates of the numbers of taxpayers and of the amounts of tax payable under different CTT proposals are sufficiently accurate.

Facilities available on the model

(i) Tax calculation

A tax calculation can be performed on data from the base year or on data projected to any other year. This facility is used for estimating the tax yield in the chosen year given unchanged rates, and for costing hypothetical changes to the tax rates or reliefs.

User parameters for the tax calculation program are input to the computer via a terminal and the user is taken through a simple question and answer routine. The current set of tax rates (and the corresponding thresholds) are held as standard and only changes need to be input. The user may:

- a. change tax rates and/or bands.
- b. restrict any item amount on a record to a ceiling (zero if required). This facility can be used if the cost of an exemption or relief is required.
- c. adjust any single item amount on a record by a multiplying factor. This, and *d.* below, are used to test the sensitivity of the results to specific projection assumptions. They can also be used for costing some reliefs.
- d. adjust any group or groups of item amounts by a common multiplying factor.
- e. range the results by either net estate³ or taxable estate⁴ (the ranges do not have to be input – a standard set of net estate ranges is held and the ranges of taxable estate are linked to the tax thresholds used).
- f. alter the net estate ranges if required.

The tax is calculated on each case in turn and aggregated after all the calculations have been made. In one costing run up to nine different sets of changes can be separately costed but they must all use the same data file.

Two tables are output for each set of changes. The first table is by range of taxable estate (the ranges correspond to the thresholds for the different rates of tax) and shows the tax payable, the cumulative total of tax and the effective rate of tax at each threshold. The second table is ranged by either net estate or by taxable estate (see *e.* above) and shows the number of cases, the cumulative number of cases, the aggregate tax payable, the average tax payable per case and the effective rate of tax. If ranging is by net estate the table also shows the numbers of taxpayers. The second table can be split to show cases where part (or total) exemption from CTT has been allowed because part (or all) of the estate has been left to a surviving spouse.

3. Net estate equals the gross capital value of the estate less liabilities.

4. Taxable estate is net estate less reliefs and exemptions and is the amount on which tax is charged.

(ii) Graph plotting

After the tax calculation program has been run graphs can be plotted to show the effects of up to four sets of changes. The effective rate of tax is plotted against the size of net estate. These graphs often illustrate the differences between the effects of different CTT proposals more clearly than a set of figures.

(iii) Selection of a sub-sample of cases

A sub-sample of the cases held on-line can be analysed. This facility is useful when a new relief for a special group of taxpayers is proposed, for example a new relief for businessmen. It can also be used if information is required about holdings of certain assets or groups of assets.

The sub-sample can be selected by country, sex, age group, size of net estate, marital status and by whether or not lifetime transfers have been made. It is also possible to select

- a. all cases where at least one of a given list of items is present on the record.
- b. all cases where all of a given list of items are present on the record
- c. all cases where all of a given list of items are absent from the record.

Cases can be selected on a combination of criteria, e.g. all females in Scotland who owned farmland.

The cases thus selected are analysed, using the facilities described in *b.*, *c.* and *f.* under the section on *Tax calculation* above if desired.

The table output shows the number of cases, the amount of capital attributed to the selected items and the value of the total net estate. These may be ranged by value of net estate or by the value of the selected item amounts.

(iv) Analysis of wealth data

Each case in the sample of death estates is grossed up by a reciprocal mortality factor (calculated outside this system but dependent upon age, sex, size of estate, etc.) so as to represent the wealth holding of the living. The file thus created, and samples from it, can then be analysed as described at *(iii)* above.

Uses of the model

The model has so far been used to:

- i. Cost Budget (and Finance Bill) proposals to alter the rates and/or thresholds of CTT and to cost the introduction of new reliefs or exemptions some applying to special groups of taxpayers only.
- ii. Show the effects of the proposed changes on different types of taxpayer.

iii. Estimate the number of taxpayers that will arise from deaths in a year given the level at which CTT becomes payable. From these estimates the number of taxpayers paying tax in a year can be estimated and thus the number of tax office staff required to deal with them.

iv. Forecast the yield from CTT in 1980/81 and 1981/82.

v. Answer Parliamentary Questions. These often require similar costings to those done prior to the Budget.

vi. Make estimates of the costs of reliefs and exemptions from CTT for the Public Expenditure White Paper.

vii. Assist in the analysis of the distribution of wealth.

Improvements to the system and future developments

Some recent changes to the system have reduced the time spent by the operator at the terminal and have enabled more efficient use to be made of the computer. One change is that a choice is now offered, after the parameters have been input, for the job either to be continued on-line or for it to be run in 'background' mode taking a lower priority. If the latter is chosen both the terminal and its operator are released for other work. Another improvement is the use of a 'menu' system where the facilities required during a particular run are selected at the start of the run and only the relevant questions have to be answered.

The facilities now available on the model serve all our current needs. However future reductions in the CTT sample will probably require us to do averaging over years and the model will need to be used for this work. Also future proposals for CTT may require different analyses of the data. If so, the model should prove flexible enough for the necessary additional facilities to be added without difficulty.

Developments in local authority comparative statistics

Chris Griffin, Statistician, Department of the Environment

The publication of a new booklet *Local Government Comparative Statistics* by the Chartered Institute of Public Finance and Accountancy (CIPFA) Statistical Information Service marks the completion of the opening phase in the Government's initiative to secure the publication of more comparative information about local authorities. The main thrust of that initiative has been to encourage each local authority to publish better information about its costs and levels of service, where appropriate in comparison with other local authorities, for the benefit of ratepayers, councillors and other interested parties. Thus, following extensive consultation with the local authority associations, professional organisations, ratepayer and other interest groups and trade unions, the Secretary of State for the Environment issued in February 1981 a code of practice on the publication of annual reports and financial statements by local authorities.

The code of practice calls for the publication by each authority of an annual report containing narrative accounts and financial and statistical data. This is to include a set of key service indicators selected by the authority (but including the core list specified in the code) which where possible measure the authority's performance. As indicated in the code and otherwise as appropriate, authorities are asked to compare their own figures with those for:

- a. the average for the same class of authority, as published nationally;
- b. other authorities chosen by the authority as having similar characteristics (not necessarily the same authorities for all services).

The comparisons are to be based at least on actual outturn information for the year preceding the year of account, but also on more recent information based on (budget) estimates where the authority wishes.

The core list of indicators specified in the code was finally approved by Ministers and the leaders of the local authority associations in the Consultative Council on Local Government Finance (CCLGF) following the publication of a tentative list in a consultation document, which was subsequently revised and shortened by a special sub-group of the National and Local Government Statistical Liaison Committee (NLGSLC). The work of the sub-group including the selection of the final core list, the preparation of notes for guidance on definitions, and a programme of future work in this field will be described in a subsequent article.

In order to facilitate the implementation of the code of practice the relevant CCLGF working group decided that it would be necessary to provide to local authorities some guidance as to the definitions they might follow in publishing the statistics specified in the code, together with a ready source of the figures for other authorities and for class averages. The working group accepted an offer by CIPFA to compile a booklet of comparative statistics, to be based for the most part on data already published by CIPFA, and asked the NLGSLC to compile the advice on definitions in consultation with the relevant professional organisations. It was finally accepted that the two elements should be combined on a trial basis in a new publication, one copy of which was to be issued free to each local authority.

The booklet itself therefore contains for each authority and each class of authority (Inner London Boroughs, English non metropolitan districts, etc.) values of each of the statistics specified in the code of practice, both for 1979/80 financial year 'actuals' and for 1980/81 'estimates' where available. In addition, since the code calls for the publication of 'net cost per 1000 population' and 'local authority manpower per 1000 population' on each service as selected and grouped by authorities, the booklet contains these figures for a selection of local authority services and for all services in total. In a few instances the statistics specified in the code of practice are supplemented by other information where this was thought to be particularly relevant; but in two cases the core statistics are not yet available nationally.

For the most part the information shown in the booklet has previously been published in the more detailed CIPFA volumes covering individual services or in publications of the Government Statistical Service and other organisations. However, a few of the indicators – most notably total (actual) expenditure per 1000 population – have not hitherto been published on a regular basis. The booklet also breaks new ground in a number of other ways in that:

- it contains statistics for individual authorities which are more explicitly comparative than figures published previously;
- it juxtaposes information about expenditure and manpower;
- for some services an indicator is included which reflects the demand for the service or the size of the client group as well as the resources devoted

to supplying the service; and

– it shows for each individual authority figures covering two successive years: the outturn for one year and the estimates for the next.

For practical purposes it was accepted that the data in the booklet should be drawn from the relevant statistical returns to central organisations, rather than the figures which appeared in authorities' own local statements of account, even though the former might in some cases have been revised at the last minute.

In deciding to publish the booklet rather than merely to issue it to local authorities, it was acknowledged that the information it contained would be of interest to a wider audience than local and central government. It was therefore designed to cater for all those who require a ready source of local authority comparative statistics, containing also some notes on the use of comparative statistics and the principal sources of variation between authorities. The notes on definitions are accordingly phrased in terms which should be widely understood and also include references to the more detailed statistical publications from which the figures are drawn. For the benefit of local authorities and others the introduction gives some references to work which has been carried out on the 'clustering' or selection of comparable authorities, and for each indicator the source document (statistical return) is shown. The booklet therefore fulfils a useful function as a brief practical guide to sources and uses of comparative statistics of local authorities in England and Wales.

The future of the publication will be reviewed by the CCLGF working group in the light of reactions to the first trial publication and its use by authorities in compiling their annual reports on the 1980/81 financial year. The group will also be reviewing the operation of the code of practice itself, and in particular the list of indicators it recommends for publication. Any comments or suggestions for improvement in the booklet – and in particular on the usefulness of the notes on definitions and sources and the need to repeat their publication in future years – should in the first place be made to the CIPFA. Comments on the code of practice should be sent to the Department of the Environment (PLGI), 2 Marsham Street, London SW1P 3EB.

References

Local Government Comparative Statistics (CIPFA Statistical Information Service) July 1981 (Price £12.00 net)

Local Authority Annual Reports – a code of practice on the publication of annual reports and financial statements by local authorities (HMSO) February 1981 (Price £1.40 net)

Recently available statistical series and publications

The following publications containing social statistics have recently, or will soon become available during July–September quarter of 1981. 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 Education and Science

Statistics of Education, Volume 3, 1978: Further Education statistics 1978

Statistics of Education, Volume 2, 1979: School Leavers' statistics 1979

Statistics of Education, Volume 5, 1979: Finance and Awards statistics 1979

Department of Employment

Employment Gazette, published towards the end of each month, contains indicators on earnings, unemployment and prices. Issues due in the third quarter will contain the Family Expenditure Survey results for the fourth quarter of 1980 and early results for all UK households for 1980.

Department of the Environment

Housing and Construction Statistics, first quarter 1981 Part 2, No 5

Local Housing Statistics. Issue 58: figures for the first quarter of 1981

Housing and Construction Statistics, second quarter, 1981 Part 1, No 6

Home Office

Copies of Home Office Statistical Bulletins are available from the Home Office Statistical Department, Room 1617, Tolworth Tower, Surbiton, Surrey KT6 7DS

Statistics of experiments on living animals, Great Britain 1980

Report of HM Chief Inspector of Fire Services, 1980

Statistics of persons acquiring citizenship of the United Kingdom and Colonies, 1980

Statistical Bulletin: Statistics on the Prevention of Terrorism (Temporary Provisions) Acts 1974 and 1976, second quarter, 1981

Statistical Bulletin: Statistics of drownings, England and Wales, 1980

Statistical Bulletin: Statistics on the misuse of drugs, United Kingdom, 1980

Statistical Bulletin: Control of Immigration Statistics, United Kingdom, second quarter, 1981

Statistical Bulletin: Offences of drunkenness, England and Wales, 1980

Statistical Bulletin: Serious offences recorded by the police, England and Wales, second quarter, 1981

Statistical Bulletin: Offences relating to Motor Vehicles, England and Wales, 1980

Criminal Statistics, England and Wales, 1980

Prison Statistics, England and Wales, 1980

Inland Revenue

Survey of Personal Incomes 1978–1979

Inland Revenue Statistics 1981

Office of Population Censuses and Surveys

OPCS Monitors are available free from the Office of Population Censuses and Surveys and include:

<i>Weekly Return</i>	WR	Weekly
<i>Births and Deaths</i>	VS	Monthly
<i>Legal Abortions</i>	AB	Monthly
<i>Deaths from Accidents</i>	DH4	Monthly
<i>Infectious Diseases</i>	MB2	Quarterly
<i>International Migration</i>	MN	Quarterly
<i>Deaths by Cause</i>	DH2	Quarterly
<i>Adoptions</i>	FM3	Annually
<i>Electoral Statistics</i>	EL	Annually
<i>Infant and Perinatal Statistics</i>	DH3	Occasional
<i>Population Estimates</i>	PP1	Occasional
<i>Census</i>	CEN	Occasional

Scottish Office

Scottish Economic Bulletin No 23

Scottish Housing Statistics No 13

Criminal Statistics, Scotland, 1979

Scottish Education Department

Statistical Bulletin: Excess and Deficit of Teachers by subject

Statistical Bulletin: Pupils and Teachers in Schools

Statistical Bulletin: Pupil Projections

Statistical Bulletin: School Roll Changes

Statistical Bulletin: Trends in School Education

Statistical Bulletin: Education for 16-18 year olds

Statistical Bulletin: Colleges of Education

Statistical Bulletin: First Destination of University Graduates

Statistical Bulletin: Age Distribution of Teaching Force

Department of Health and Social Security

In addition to the above, the following analyses in the Department of Health and Social Security statistical series have recently become available. Extracts and summaries from these will eventually be published in *Social Security Statistics*.

Further information can be obtained from:

Mr R J McWilliam,
Department of Health and Social Security,
Room A2216,
Newcastle Central Office
Newcastle-upon-Tyne NE98 1YX

Unemployment benefit

Quarterly analyses of registered unemployment claimant, quarter ending 12 February 1981

Quarterly analyses of decisions of Insurance Officers, quarter ending 31 March 1981

Monthly analysis of claims by sex and region:

5 weeks ending 4.4.1981

4 weeks ending 2.5.1981

4 weeks ending 30.5.1981

Child benefit

Monthly analysis of families and children, 4 months ended 30.4.1981

Sickness invalidity and injury benefits

Monthly analysis of weekly average of new claims by region: GB:

4 weeks ended 28.4.1981

4 weeks ended 26.5.1981

5 weeks ended 30.6.1981

Retirement pension and widows benefit

Number of widows receiving pensions or widows allowances, quarter ending 31.3.81

New Surveys assessed by the Survey Control Unit

March 1981 to May 1981

For further information on the surveys listed, the appropriate departmental contact may be obtained from Mr R. C. Ponman (01-233 8583), Survey Control Unit, Central Statistical Office, Great George Street, London SW1P 3AQ.

An introductory note was given in Statistical News 36.41

New Surveys assessed March to May 1981

Title	Sponsor	Those approached	Approximate number approached	Location	Frequency
Business surveys					
'New Outlook' research	COI/MSC	Employers	200	GB	AH
Jobcentres advertising test	COI/MSC	Employers	45	GB	AH
Overseas earnings of solicitors	CSO	Solicitors	190	SE	AH
The position of women in payment structures	DEM	Employers, employees	NK	EA	AH
Inequalities in urban medical services – general practice survey	DHSS	Doctors	620	NW	AH
Diffusion of process innovations study	DI	Manufacturers	4357	UK	AH
Wool textile industry – statutory export promotion and research levies	DI	Textile firms	1500	GB	AH
Enterprise zones research	DOE	Businesses	NK	GB	AH
Annual return of port traffic	DTP	Port and wharf undertakings	180	GB	A
Performance of mechanical separators for slurry	MAFF	Farmers	40	EW	AH
Survey of managers and employers	MAFF	Farmers	1325	EW	AH
Study of ATB training penetration in the South East	MAFF	Agricultural/horticultural enterprises	300	SE	AH
Enquiry into computer-skilled manpower	MSC	Employers	1040	GB	AH
Managerial strategies in establishing the demand for labour	MSC	Employers	50	EM	AH
Code of practice for furniture – monitoring survey	OFT	Retailers	300	GB	AH
Competition Act 1980 Sec 3 investigation – Arthur Sanderson Ltd	OFT	Retailers	500	UK	AH
Research on price comparisons – traders	OFT	Retailers	600	GB	AH
Retail distribution survey	SEPD/SSRC	Retailers	75	S	AH
Local authority surveys					
Children at risk – social workers survey	DHSS	Social workers	NK	EA	AH
Role of a remedial profession in the community – occupational therapy	DHSS	Social Services Departments	12	E	AH
House adaptations for disabled people – Circular 59/78	DOE	Housing Departments	130	EW	AH
Inspection of Airey (DUO-SLAB 2) houses	DOE	Housing Departments	460	GB	AH
Preserving the character of conservation areas	DOE	County Councils/London Borough Councils	78	E	AH
Eutrophication – UK 1980/81	DOE	Water authorities	32	UK	AH
Criminal Justice (Scotland) Act 1980 – monitoring exercise	SHHD	Police force divisions	40	S	AH
Review of building control in Scotland – information return	SDD	Local authorities with building control functions	50	S	AH
Other surveys					
Energy – TV campaign evaluation	COI/DEN	Adults	1600	GB	AH
Energy – public attitude monitor March 1981	COI/DEN	Adults	2000	GB	AH
'Compare your home heating costs' – booklet research	COI/DEN	Owner-occupiers	220	GB	AH
Child pedestrian campaign research	COI/DTP	Children	40	E	AH
Child pedestrian campaign omnibus evaluation	COI/DTP	Children	1100	UK	AH
Police recruitment advertising pre-test 1981/82	COI/HOME	Youths	NK	GB	AH
'Special Programmes News' Research	COI/MSC	Readers	120	GB	AH
Youth opportunities programmes – campaign test	COI/MSC	Adults	NK	E	AH
Youth opportunities programme campaign evaluation	COI/MSC	Adults	1000	GB	AH
Research into the careers service and employers	DEM	Careers Advisory Services	18	E	AH
Social security emergency services – claimant survey	DHSS	Claimants	160	E	AH
Fostering and the Children's Act 1975 – follow-up survey	DHSS	Children	180	E	AH
Survey of residential accommodation for the elderly	DHSS	Local authorities, voluntary and private homes	300	EW	AH
Tinnitus research	DHSS	Patients	NK	NK	AH
Iron and Steel Employees Readaptation Benefits Scheme	DI	Employees	1000	UK	AH
Comparative Study of Home Accident Cases at large and small hospitals	DT	Patients	2800	E	AH
Noise levels around small airfields	DT	Residents	225	GB	AH
Research into the valuation of physical risk	DTp	Adults	1000	GB	AH
M3/A33 Bar End to Compton and Compton to Bassett Review	DTp	Drivers	21000	SE	AH

New Surveys assessed March to May 1981 (continued)

<i>Title</i>	<i>Sponsor</i>	<i>Those approached</i>	<i>Approximate number approached</i>	<i>Location</i>	<i>Frequency</i>
Other surveys (continued)					
M20/M2 traffic monitoring	DTp	Drivers	6000	SE	AH
M20/M26 - 'Before' and 'After' Study	DTp	Drivers	13500	SE	AH
Ayr duplicate diet study	MAFF	Women	200	S	AH
Recall survey of special programme sponsors	MSC	Employers	570	GB	AH
Review of the Industry Training Boards	MSC	Interested organisations	2200	GB	AH
Severely disabled people in sheltered employment	MSC	Disabled	1000	GB	AH
Research on price comparisons	OFT	Consumers	1000	GB	AH
Follow-up survey of YOP clients	OPCS	Youths	2849	GB	AH
New smoking survey	OPCS	Adults	4000	GB	AH
Glasgow tenants' grants monitoring survey	SDD	Tenants	1100	S	AH
Lift fault detection study	SDD	Tenants	150	S	AH
Coach passengers on selected National Express and Scottish Bus Group services	TRRL	Passengers	45000	UK	AH
Monitoring public transport in trial areas	TRRL	Passengers	NK	E	AH
1981 Welsh house condition linked social survey	WO	Households	11120	W	AH

LIST OF ABBREVIATIONS

General

<i>ATB</i>	<i>Agricultural Training Board</i>
<i>NK</i>	<i>Not Known</i>
<i>YOP</i>	<i>Youth Opportunities Programme</i>

Frequencies

<i>A</i>	<i>Annual</i>
<i>AH</i>	<i>Ad Hoc (or single time)</i>

Sponsors

<i>COI</i>	<i>Central Office of Information</i>
<i>CSO</i>	<i>Central Statistical Office</i>
<i>DEM</i>	<i>Department of Employment</i>
<i>DEN</i>	<i>Department of Energy</i>
<i>DHSS</i>	<i>Department of Health and Social Security</i>
<i>DI</i>	<i>Department of Industry</i>
<i>DOE</i>	<i>Department of the Environment</i>
<i>DT</i>	<i>Department of Trade</i>
<i>DTp</i>	<i>Department of Transport</i>
<i>HOME</i>	<i>Home Office</i>
<i>MAFF</i>	<i>Ministry of Agriculture, Fisheries and Food</i>
<i>MSC</i>	<i>Manpower Services Commission</i>
<i>OFT</i>	<i>Office of Fair Trading</i>
<i>OPCS</i>	<i>Office of Population Censuses and Surveys</i>
<i>SDD</i>	<i>Scottish Development Department</i>
<i>SEPD</i>	<i>Scottish Economic Planning Department</i>
<i>SHHD</i>	<i>Scottish Home and Health Department</i>
<i>SSRC</i>	<i>Social Science Research Council</i>
<i>TRRL</i>	<i>Transport and Road Research Laboratory</i>
<i>WO</i>	<i>Welsh Office</i>

Locations

<i>E</i>	<i>England</i>
<i>EA</i>	<i>East Anglia</i>
<i>EM</i>	<i>East Midlands</i>
<i>EW</i>	<i>England and Wales</i>
<i>GB</i>	<i>Great Britain</i>
<i>NW</i>	<i>North West England</i>
<i>S</i>	<i>Scotland</i>
<i>SE</i>	<i>South East England</i>
<i>UK</i>	<i>United Kingdom</i>
<i>W</i>	<i>Wales</i>

Notes on current developments

POPULATION AND VITAL STATISTICS

Census 1981

England and Wales

A report presenting the first results from the eighteenth decennial census of the population of England and Wales was published in June. Provisional figures of the count of persons present on census night for the country as a whole and for local authority areas are given as well as a commentary on the comparisons with the figures from the 1971 Census and recent population estimates.

The report, produced by the Office of Population Censuses and Surveys, includes a general background to the census, commenting on how the census taking was organised, what problems were encountered and how the figures were produced.

Reference

Census 1981: Preliminary report: England and Wales. (HMSO) June 1981 (Price £4.80 net)

Scotland

The preliminary report on the 1981 census of population was published in June. It contains provisional figures based on field summaries for Scotland, local authority areas, new towns, postcode sectors, built-up localities of over 500 population and most of the pre-reorganisation burghs of:

- households, present and absent
- vacant houses
- population in households
 - as enumerated at census
 - returned as resident, present or absent at census
- population in non-private establishments
 - as enumerated at census
 - present and resident at census

Comparable enumerated populations from the 1971 Census are included for local authority areas.

More preliminary information has been extracted from the 1981 Census than from past censuses, and it is possible that some items (particularly vacant and occupier-absent housing) will be substantially amended on further processing.

Reference

Census 1981 Scotland: Preliminary Report (HMSO) June 1981 (Price £6.70 net)

Variations between small areas in some 1971 Census variables

One of the major developments in the Population Census since 1951 has been the growth of interest in the standard tables produced for small areas such as enumeration districts and wards. Analyses of the extent of differences between small areas for 23 different 1971 Census variables were published by OPCS in June. The paper provides simple statistical summaries to enable an area, or several areas, to be set in a national context and also to bring out the variations found when the smallest area unit (enumeration district) is used. This kind of analysis is useful in assessing policy and in providing a benchmark with which to compare findings from the 1981 Census. The 23 variables analysed range from basic demographic topics (age structure, birthplace) housing tenure and amenities and household composition, and also include socio-economic variables such as car ownership and unemployment.

Reference

Variations between small areas in some 1971 Census variables by John Craig. OPCS Occasional Paper 21 (OPCS 1981) (Price £1.00 net). Copies available from OPCS Information Branch, St Catherines House, 10 Kingsway, WC2B 6JP

Population Trends

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

Census 1981: the impact on local authorities

The 1981 Census results will have a considerable impact on local authorities and will affect data systems and models which used 1971 Census data and enumeration districts as their base. The 1981 Census will also provide the first opportunity to analyse in detail changes since 1971 and to test the accuracy both of predictions made for 1981 and of data sources used for monitoring inter-censal change. This article, by Keith Francis of Hampshire County Council Planning Department, describes the relevance of the census to the work of a local authority and the problems of coping with, and adjusting to, the large volume of new data provided and any surprises they contain.

The recent up-turn in fertility in England and Wales, France and West Germany

This note by Gérard Calot, Director of the National Institute for Demographic Studies (Paris) and Jean Thompson, Population Statistics Division, OPCS, summarises some key results of a study of comparative fertility trends in the three countries.

Housing careers of recently married couples

Recently married couples are an important group seeking housing. They are prominent both in the market for owner-occupied housing and among the applicants for local authority tenancies. How quickly they get housing accommodation on their own and how long they have to wait before getting separate homes (as distinct from having to share) have long been regarded as a major element in how well the housing system has been performing its function and is the subject of this article by Alan Holmans of the Department of the Environment.

Census 1981 – an historical and international perspective: 3. Census geography

In *Population Trends 23* the 1981 Census was compared with past censuses in Britain and in four other developed countries: Australia, Canada, France and the United States. Two main aspects were examined: first, the structure and topic content of the census and, second, methods and technology. This concluding part, by Philip Redfern, Deputy Director, OPCS, reviews developments in census geography and, in particular, the ways in which the results of the census are presented for a variety of regions, districts, towns and smaller areas.

Annual and quarterly statistics on population and population change, vital statistics summaries, births, marriages, divorces, migration, deaths and abortions are also included.

References

- Population Trends 23* Spring 1981. (HMSO 1981) (Price £4.20 net)
Population Trends 24 Summer 1981. (HMSO 1981) (Price £3.50 net)

GRO (Scotland) – Population and vital statistics

The Registrar General's annual report for 1979 has been substantially delayed by the change to the ninth revision of the classification of causes of death, and by other changes in format and means of production which were carried out in the same reprogramming. It should be published (in one volume) this autumn, and the 1980 annual will follow about the end of the year.

The 1980 annual estimates booklet and the fourth quarterly return for 1980 are also due for publication this autumn. This will be the last quarterly return, and equivalent tables for the first quarter of 1981 have been issued in the revised weekly return from April this year.

The 1971 occupational mortality study is now available as a departmental publication, price £5.50 net.

The three abbreviated tables on deaths cause and sex, deaths by age and sex, births by mother's age, legitimacy, parity and father's social class for postcode sectors (about 1000 in Scotland) are now available for 1979 and 1980. The unpublished extensions to the Annual Report tables, as described in the introductory pages of the Annual Report, are also now available for these years.

Unpublished tables, departmental publications and information on their content may be obtained from Statistics Branch, Ladywell House, Edinburgh EH12 7TF

SOCIAL STATISTICS

General Household Survey

The preliminary results from the 1980 General Household Survey were published by the Office of Population Censuses and Surveys in June. The Monitor contains a short selection of preliminary tables giving the latest information and shows a number of the trends and changes that have taken place in some of the social fields covered by the survey since its inception: household composition, colour (interviewers' assessment), one-parent families, tenure, amenities, consumer durables, economic activity and cigarette smoking.

Reference

- General Household Survey: Preliminary results for 1980.*
OPCS Monitor GHS 81/1 (OPCS 1981). Copies available, free, from OPCS Information Branch, St Catherines House, 10 Kingsway, London, WC2B 6JP

The impact of the mobility allowance: an evaluative study

This is the report of a survey to assess effects of the mobility allowance on its recipients. The benefit was introduced in 1976; it is now payable to people between the ages of 5 and 75 who are unable or virtually unable to walk because of physical disablement. 500 adult beneficiaries and 500 parents of child beneficiaries were interviewed in 1977. The benefit was then £5 per week. (It has since been increased to £14.50.)

It was found that most people receiving the allowance kept it separate from other household money and spent it on transport. Where there was a car in the household the allowance tended to be used for petrol and maintenance; other families tended to spend it on taxi fares. A higher proportion of mobility allowance recipients had cars than the population as a whole, even though they did not appear to be a particularly well off group. While the allowance did not in general make a great impact on the mobility of those receiving it, for a minority, including nearly half the adults, it increased the number of journeys they were able to make especially for recrea-

tional and social purposes. The researchers concluded that the main effect of the allowance was to sustain the outdoor mobility already enjoyed by beneficiaries by contributing to their mobility costs. In this it was particularly helpful to lower income groups.

The study was a collaboration between DHSS Social Research Branch and the Social Policy Research Unit at the University of York where the report was written. Interviews were by SCPR.

Reference

DHSS Research Report 7 *Impact of the mobility allowance: an evaluative study* by Kenneth R Cooke and Frances Staden (HMSO) April 1981 (Price £3.95 net).

Coroners' statistics

This bulletin contains tables and commentary giving the number of deaths reported to coroners and the outcome of enquiries into these deaths during 1980, with historical tables covering the period 1970 to 1980, and a table summarising the statistics of deaths registered, deaths reported to coroners and inquests held, from 1920 to 1980. This is the first statistical bulletin to be issued on these data; statistics have been published previously in other ways, most recently in the *Report of the Committee on Death Certification and Coroners* (Cmnd 4810) in 1971. The subjects covered are deaths reported to coroners, post-mortems ordered by the coroner, types of inquest, and verdicts returned at inquests.

Reference

Coroners' Statistics England and Wales 1980, Home Office Statistical Bulletin Issue 10/81, 30 April 1981 (Price £1.00 net).

Welsh housing and dwelling survey

The Welsh Housing and Dwelling Survey was carried out in two stages from May to August 1978 and from May to August 1979. The survey covered 56,000 addresses in Wales, evenly split between counties. Topics included relate to households, family units and individuals. This gives similar coverage to the National Dwelling and Housing Survey (NDHS) in England.

The report, published earlier this year, contains forty-nine tables and two maps together with copies of the questionnaire, interviewers manual and coding and editing manual. It is priced at £9.50 (including postage) and can be obtained only from:

Survey Branch
Economic and Statistical Services 1
Welsh Office
Cathays Park
Cardiff CF1 3NQ

Further information can be obtained either from the above address or by telephoning Mr E. Swires-Hennessy on Cardiff (0222) 825087.

Statistics of drownings

This bulletin contains tables and commentary describing some of the main characteristics of drowning fatalities in 1979, with historical tables for 1975 to 1979. Drownings are classified by age and sex of victim, type of water and type of activity, factors contributing to the drownings and warnings and hazardous conditions. It is planned to issue one further bulletin before bringing this series to a close.

Reference

Statistics of Drownings England and Wales 1979, Home Office Statistical Bulletin, Issue 11/81, 12 May 1981 (Price £2.00 net).

HEALTH AND SOCIAL SERVICES

Health and safety statistics 1978 and 1979

The latest issue of the Health and Safety Executive's annual publication, covering the years 1978 and 1979, appeared recently; there was no separate 1978 issue. It presents statistics of accidents at work and occupational diseases and of enforcement action taken by the inspectorates and other agencies.

The 1978 and 1979 statistics are supported by figures for earlier years; where practicable, a longer run of years is shown than in previous issues and many tables go back to 1971.

A new accident classification was introduced at the beginning of 1978 for accidents reported to the Factory Inspectorate. This makes possible a more detailed and consistent analysis, but it limits the comparisons that can be made with earlier years.

The accident statistics are mainly based on reports to the enforcement agencies (including the Factory, Mines and Quarries, Explosives, Railways, Nuclear Installations and Agricultural Inspectorates, the Petroleum Engineering Division of the Department of Energy and local authorities).

The statistics of occupational diseases are mainly provided by the Department of Health and Social Security and are based on the records of the Industrial Injuries, Industrial Disablement and other compensation schemes.

More detail about specific industrial sectors is given in Health and Safety reports for Manufacturing and services industries, Mines and quarries and Agriculture.

Reference

Health and Safety Statistics 1978 and 1979 (HMSO) August 1981 (Price to be announced)

Health and Safety: Manufacturing and Services Industries 1979 (HMSO) April 1981 (Price £4.50 net)

Health and Safety: Mines 1979 (HMSO 1980) (Price £3.50 net)

Health and Safety: Quarries 1979 (HMSO 1980) (Price £3.50 net)

Health and Safety: Agriculture 1978 and 1979 (HMSO) July 1981 (Price to be announced)

Area mortality

The latest in a series of decennial supplements to the Registrar General's annual reports was published in July. The report discusses mortality in relation to area of residence and contains commentary, tables and maps showing patterns of mortality in England and Wales in the period 1969-73 by region, degree of urbanisation and for individual county and London boroughs. Male and female mortality from fifty causes of death are reviewed.

The commentary, written by Dr Clair Chilvers of the Institute of Cancer Research, Royal Cancer Hospital in collaboration with the Office of Population Censuses and Surveys, comprises chapters on methods and limitations, all-cause mortality, mortality from fifty causes and infant mortality and a summary of the uses and implications of the mortality statistics.

Published in August was the detailed picture of causes of death in areas of England and Wales for the year 1979. The report, produced by OPCS, gives figures of deaths by cause, sex and age-groups for each of the standard regions, regional health authorities and metropolitan counties; deaths by cause and sex are indicated for each metropolitan and non-metropolitan district and non-metropolitan county.

References

- Area mortality 1969-1973* Series DS No 4 (HMSO 1981) (Price £8.10 net)
Mortality statistics: area 1979 Series DH5 No 6 (HMSO 1981) (Price £7.70 net)

Access to primary health care

The report of this survey published in July. The survey was carried out by Social Survey Division of the Office of Population Censuses and Surveys on behalf of the United Kingdom Health Departments. Results are based on a representative sample of some four and a half thousand people aged 16 or over living in the United Kingdom and interviewed in 1977.

The primary health care services concerned are: general practice, pharmacies, ophthalmic, dental and chiropody services, as well as district nurses and health visitors. The report describes physical and other components of accessibility of the services, the use made of them, and the way in which each is related to peoples' characteristics and circumstances. The section on general practice examines the connection between the types of practice and their accessibility. Key aspects of accessibility in the four countries of the United Kingdom, four regions of England and rural and non-rural areas are compared.

Reference

- Access to Primary Health Care* by Jane Ritchie, Ann Jacoby and Margaret Bone. An enquiry carried out on behalf of the United Kingdom Health Departments. (HMSO 1981) (Price £12.50 net)

Abortion statistics

The total number of terminations notified under the Abortion Act 1967 in England and Wales during 1979 was 147451. This was 5893 (4.16 per cent) higher than the figure for 1978. These figures form part of a report published in July and produced by the Office of Population Censuses and Surveys. Abortions carried out on women resident in England and Wales rose by 7177 (6.42 per cent) to 119028.

An OPCS Monitor issued in May contains the most up-to-date figures of the number of terminations notified during the 53 week period ending 31 December 1980. This showed that abortions increased by a further 10.63 per cent to reach a total of 163126. This comprised an increase of 9.44 per cent in the number of notifications of terminations to residents (130264) and of 15.62 per cent to non-residents from 28423 to 32862.

References

- Abortion statistics 1979* Series AB No 6 (HMSO 1981) (Price £5.60 net)
Legal abortions OPCS Monitor AB 81/4 (OPCS 1981). Copies available, free, from OPCS Information Branch, St Catherines House, 10 Kingsway, London, WC2B 6JP

EDUCATION

Higher Education in Great Britain

DES Statistical Bulletin 6/81 presents information on student numbers in higher education in Great Britain, including students in public sector institutions in Scotland who are the responsibility of the Scottish Education Department. Higher education is made up of university courses, courses of teacher training and other advanced courses in the public sector. This bulletin gives provisional information for 1980/81, some of which has already appeared in earlier Statistical Bulletins, together with comparable information for earlier years.

Not all higher education is undertaken by full-time study and the bulletin gives a table in which part-time students plus those on Open University courses are compared with the full-time numbers. The bulletin also updates the true series for the 'age participation rate' and the 'qualified participation rate' which were first given in Statistical Bulletin 12/80. The former relates young home initial entrants to the total population in the relevant age group while the latter relates these entrants to the population in the age group with the minimum qualifications deemed necessary for higher education.

Reference

- Higher Education in Great Britain: Early Estimates for 1980/81*, DES Statistical Bulletin 6/81 available free from Statistics Branch, DES, Elizabeth House, York Road, London SE1 7PH

Pupil projections: Scotland

A statistical bulletin containing national projections of numbers of pupils in education authority primary, secondary and special schools in Scotland over the period September 1981 to September 2000, and individual education authority projections of numbers of pupils in primary and secondary schools up to September 1991.

Education for the 16-18 year old age group: Scotland

This bulletin contains information on the numbers of 16-18 year olds in Scotland in sessions 1977/78 and 1979/80 who continued to receive some form of educational provision after reaching the minimum school leaving age. It gives details of the number of pupils remaining at school and of those school leavers who attended courses, both full-time and part-time, at establishments of further or higher education.

Copies of statistical bulletins can be obtained from:

Scottish Education Department
Statistics Division
Room 206
43 Jeffrey Street
Edinburgh EH1 1DN
Telephone: 031-556 9233 Ext 286

MANPOWER AND EARNINGS

Labour force outlook to 1986

An article discussing the size and composition of the total labour force in Great Britain in the years up to 1986 was published in the April 1981 issue of the *Employment Gazette*. The article examines recent changes in factors influencing the labour force and provides projections of the labour force to 1986 based on a working assumption on the future demand for labour; alternative projections based on variant assumptions are also shown.

Over the past few years, the size of the Great Britain labour force has been greatly affected by both high and rising levels of unemployment. It is estimated that during the four years to 1981, when the population of working age rose by 700,000, the labour force may have actually fallen slightly because of decreasing activity rates (i.e. decreasing proportions of the population in different age/sex groups were economically active).

Although the population of working age is projected to grow further by over 750,000 in the five years to 1986, the size of the labour force will depend on how activity rates change in this period. Under the working assumption of unemployment levels of around two million in 1986, the projected increase in the male labour force between 1981 and 1986 is around 300,000; substantially

less than the increase in the male population of working age. The projected increase in the female labour force is 360,000, slightly above that which would occur if female activity rates remain unchanged because of a projected increase in activity rates for married women aged 35-54. The resulting increase in the total labour force projected over the next five years is nearly 700,000. This is close to the expected increase in the population of working age and indicates that the net effect of changes in activity rates is projected to be small.

Reference

Employment Gazette, (HMSO) April 1981 (Price £2.00 net)

Survey of labour costs in 1981

The Council of the European Communities is expected to adopt in the near future a Regulation on the organisation by the Commission of a further survey of labour costs in 'industry' (manufacturing, mining and quarrying, construction, gas, electricity and water supply), wholesale and retail distribution, and banking, finance and insurance. Within the United Kingdom the survey will be conducted by the Department of Employment in Great Britain and the Department of Manpower Services in Northern Ireland, on behalf of the Commission.

Labour costs surveys are currently conducted at three-yearly intervals. The previous survey for 1978 had the same industrial coverage as the current survey (*Statistical News* 51.33 and 52.22). The 1981 survey will relate to costs in the calendar year or, if more convenient, in an adjacent financial year.

Information is to be obtained from samples, stratified by size of labour force, of manufacturing establishments and of undertakings in other industries, employing 10 or more employees. Specimen copies of the questionnaire were issued to those selected in the sample in January 1981.

Possible changes in the compilation of unemployment statistics

A recent report by a team of officials, under the guidance of ministers in their departments and in consultation with Sir Derek Rayner, examines the arrangements for paying unemployment benefit and supplementary allowance to unemployed people. One of its recommendations is that registration for employment at a jobcentre should no longer be a condition of entitlement to benefit (except for young people under 18). If the Government decides, after consultation, to introduce voluntary registration this would have implications for the compilation of unemployment statistics including:

- marginal changes in coverage, the net effect of which would be a proportionately small reduction

in the overall count but without affecting the value of the series as a guide to trends;

- curtailment or discontinuation of some of the detailed analyses, including those by occupation and industry;
- publication a week later than at present.

A note explaining in detail the changes involved appears in the April 1981 issue of *Employment Gazette*.

Reference

Payments of benefit to unemployed people (HMSO) March 1981 (Price £2.35 net)
Employment Gazette (HMSO) April 1981 (Price £2.00 net)

Civil Service Statistics

The twelfth annual edition of Civil Service Statistics is split into two parts.

The first part presents a broad picture of the Civil Service at 1 January 1981 and of the changes which have occurred during 1980.

The second part comprises mainly standard statistical tables analysing:

- i. staff in post in the Civil Service (Tables 1 to 3b).
- ii. staff in post, entrants, leavers in the Non-industrial Home Civil Service (Tables 4 and 5).

Following the Rayner Review of Government statistical services the tables have been reduced in number to five. The content of the first four tables is unchanged analysing staff in post figures by department, by grade, and, within major departments, by regional location. Table 5 is a (quarterly) composite of the former (monthly) entrant and leaver flow tables (7, 12 and 17) with, for the first time, seasonally adjusted estimates of voluntary leavers.

Reference

Civil Service Statistics 1981 (HMSO) forthcoming.

Redundancy statistics

The Department of Employment does not collect comprehensive statistics of redundancies, but there are three sets of figures available which give a reasonable indication of trends. None of these figures are published on a regular basis, although they are available on request from the Department and are quoted in Hansard from time to time. An article in the June *Employment Gazette* describes the three series and their limitations and explains how they are used.

Redundancies are frequently confused with job loss so it must be emphasised from the start that none of the three series described below provides anything like a measure of job loss, let alone of *net* job loss (that is, jobs lost less new jobs created). Redundancies are only one way in which jobs may be lost. Firms may reduce the number of jobs by, for example, lowering the retirement age, ceasing filling vacancies or halting recruitment alto-

gether, long before they contemplate making employees redundant. Net job loss can only be assessed from changes in overall employment levels, on the basis of employment statistics.

Redundancies take place if the business of an employer at the employee's place of work ceases, or the requirements of that business for employees to carry out a particular kind of work at their place of employment cease or diminish.

The three sets of figures maintained by the Department are derived from:

- i. statutory notifications of impending redundancies involving ten or more workers;
- ii. records maintained by local offices of the Manpower Services Commission, who follow up statutory notifications with the employers concerned; and
- iii. records of statutory redundancy payments.

Reference

'Redundancy statistics' by Frances Nobel, Pages 260-262 *Employment Gazette* June 1981 (HMSO) (Price £2.00 net)

Employee participation

The first four in a series of articles on developments in employee participation in industry have appeared in the *Employment Gazette*. An introductory article¹ was followed by an account of survey work undertaken in Scotland in 1979-80 by a team of researchers at the University of Glasgow² and a broadly comparable but smaller scale survey conducted in North West England by a research team at the University of Manchester Institute of Science and Technology.³ Broadly the results from both suggest that over the 1970s there were considerable developments in formal consultative machinery in industry. Comment is also offered on the use of interview survey methods in industrial relations research. A fourth article, by internal research staff in DE, considered available statistical evidence on the incidence of employee share ownership schemes in Britain.⁴

References

1. 'Developments in employee involvement: a new series' by P Brannen, pages 76-79, *Employment Gazette* February 1981 (HMSO) (Price £2.00 net).
2. 'Participation prospects: some Scottish evidence' by P Cressey, J Eldridge, J McInnes and G Norris, pages 117-124, *Employment Gazette* March 1981 (HMSO) (Price £2.00 net)
3. 'Employee participation: survey evidence from the North West' by M Dowling, J Goodman, D Gotting and J Hyman, pages 185-192, *Employment Gazette* April 1981 (HMSO) (Price £2.00 net)
4. 'A stake in the firm: employee financial involvement in Britain' by S Creigh, N Donaldson and E Hawthorn, pages 229-236, *Employment Gazette* May 1981 (HMSO) (Price £2.00 net).

Representation in unfair dismissal cases

A Department of Employment research paper arising from an internal project draws together information on patterns of representation of the parties at Industrial Tribunals. Information is derived mainly from administrative sources and the paper highlights some of the problems in adapting this type of data to research purposes.

The paper suggests that the extent of specialist representation and more particularly of legal representation has increased over time, a trend which appears to be at odds with the intentions of the tribunal's designers that the parties should generally argue their own cases rather than relying on professional representatives.

Reference

Research Paper No. 22 *Patterns of representation of the parties in unfair dismissal cases: a review of the evidence*, W R Hawes and Gillian Smith. Available free of charge from the Department of Employment, Caxton House, Tothill Street, London, SW1H 9NF

Occupational pension schemes

The sixth survey by the Government Actuary of occupational pension schemes in the United Kingdom at the end of 1979 was published in June 1981. The information was sought in the same way as in previous surveys, by asking a sample of employers to reply to a questionnaire and to send copies of their pension schemes rules, but on this occasion a single-page form was sent to establishments believed to have less than 25 employees, and also the main questionnaire was shortened from seven to five pages.

The sample of employers was chosen mainly by the Department of Employment from the list of establishments (or workplaces) obtained in its annual Census of Employment at June 1978, but with other sources being used for certain industries, such as agriculture, construction and some service industries including most of the public sector.

In the private sector the fraction of the establishments sampled varied according to the size of the establishment: for example only about 1 in 1,000 of the smallest establishments were chosen, but virtually all establishments with over 10,000 employees; the object being, as in previous surveys, to obtain information from the employers of 1 in every 4,000 employees in the private sector in the United Kingdom. About 3,500 establishments were chosen but these were reduced to just under 3,000 addresses when all establishments but one of any one firm were eliminated. Sometimes an employer to whom an enquiry was addressed was a subsidiary company which was joined with other companies in a common pension scheme. In that case the recipient was asked to forward the questionnaire to the office administering the pension scheme, for a reply covering the whole scheme and the associated field of employment.

When a completed questionnaire was returned it was necessary to identify all the enquiries which it covered; these could include an enquiry to another associated company which had not replied. This process of combination reduced the effective number of private sector questionnaires to 2,446. The questionnaires were sent out in December 1979 and reminders were sent early in March 1980. By the end of June 1980 just over a half of the private sector questionnaires had been returned satisfactorily completed, with details of three million members. However, taking into account the fact that only a sample of the small employers had been approached, the completed questionnaires could be taken to represent almost four million of the members of occupational pension schemes in the United Kingdom. An attempt was made to contact by telephone a random sample of one tenth of all those employers who had not replied by mid-April 1980, and this proved successful in obtaining at least brief details about their schemes and the number of members in nearly all cases. These 'reluctant' responders tended to provide pensions for a smaller proportion of the employees than otherwise similar employers that had completed a questionnaire. It was therefore decided to take this group as representative of the remainder of those not responding, stratified by size of workforce. It is on this basis the total number of members of private sector schemes is estimated to be 6.2 million: this includes 2.07 million inferred from the one-tenth subsample.

Although the response to the questionnaires was not as good as in the previous survey – a usable response was received from 58 per cent of employers in the private sector sample as compared with 67 per cent in 1975 – the 58 per cent covered 10.1 million employees, or 64 per cent of the employees in employment in the private sector. Despite the lower response rate it is thought that the follow-up procedure adopted on this occasion made the principal estimates of the numbers of members, etc. no less reliable than those made in 1975. Similar questionnaire forms were completed by over fifty bodies responsible for the main pension schemes in the public sector; information was obtained from other sources for most of the remaining schemes. Separate figures are given for the five main sectors of employment and defined for the construction of the National Accounts statistics (e.g. as in Table 1.12 of the 1980 Blue Book) so that the contributions of each sector to pension and life insurance funds can be analysed: the figures are also of interest when considering the relative extent of pension provision in the various types of enterprise.

The survey includes detailed tables of the different levels and types of benefit (including pensions increase after retirement paid to the 3¾ million former employees or their dependants and those promised to the 11¾

million current numbers of occupational pension schemes on their retirement or death. An estimate of the items of income and outgo of pension schemes in 1979 is also given, together with tables of the extent of member representation in the management of pension schemes and of benefit preservation on change of employment.

References

Occupational Pension Schemes 1979: Sixth Survey by the Government Actuary (ISBN: 01 11 700860 5) (HMSO 1981) (Price £5 net)
National Income and Expenditure 1980 Edition (HMSO 1980) (Price £10.50 net)

Top salaries

An Interim Report (Report No 16) by the Review Body on Top Salaries under the Chairmanship of Lord Plowden was published in May 1981. The report deals with the salaries of the higher judiciary, senior civil servants, and senior officers in the armed forces.

Two surveys were carried out by the Office of Manpower Economics which provides the Secretariat for the Review Body. One, similar to previous surveys, covered the remuneration at 1 September 1980 of main board members and senior executives in the private sector. The other dealt with earnings at the Bar in 1979/80 and was along the lines of the previous surveys undertaken for the years 1970/71 and 1974/75.

Appendix B contains the results from the survey of remuneration in the private sector, derived from information provided by 138 organisations covering 2,565 posts, and covering pay, pension arrangements and other fringe benefits. Table A and Table 1 show the survey response rate for organisations (67.3 per cent), while Table B sets out the distribution of salary plus bonus, commission and profit-sharing, comparing them with the distribution from the previous survey in 1980. The remaining tables in Appendix B (Tables 2 to 13) contain the detailed results on pay and fringe benefits other than pensions. (Information about pensions will be published in a future report.)

The results of the survey of earnings at the Bar are set out in Appendix C. The survey was in five parts, and dealt with the earnings of: barristers in private practice in England and Wales (Part A – Tables 1 to 5); recently appointed High Court Judges (Part B – Table 6); recently appointed Circuit Judges (Part C – Tables 7 and 8); advocates in private practice in Scotland (Part D – Tables 9 to 11); and QCs in private practice in Northern Ireland (Part E).

Finally, there is a report (Appendix D) by a sub-committee, appointed by the Review Body, under the Chairmanship of Sir George Coldstream, on salary relativities within the judicial structure. The report's recommendations are indicated, showing relativities based on the salaries of Masters and Registrars of the Supreme Court, and compares them with those recom-

mended in two earlier reports. The previous 'in depth' examination of the judicial structure was made for Report No 10 of 1978.

Reference

Review Body on Top Salaries, Report No 16, (Cmnd. 8243) (HMSO) May 1981 (Price £4.80 net).

Armed forces pay

The Tenth Report by the Review Body on Armed Forces Pay under the Chairmanship of Sir Harold Atcherley was published in May 1981 and recommends pay, accommodation and food charges for service ranks up to and including brigadier (and equivalent), to apply from 1 April 1981.

Details of the main recommended levels of military salary (in Army terms) are given in Tables 1-3, and of accommodation charges in Tables 5-7. Equivalent levels of 1 April 1980 military salaries are in Appendix 2. Full details of pay scales, and other related items, for all services are shown in a Ministry of Defence Supplement to the Report.

At the Review Body's request, the Government Actuary carried out a comparative evaluation of the pensions provisions in the Services and those attaching to the civilian jobs that the Review Body uses for its job evaluated remuneration surveys. As part of this exercise a survey of the details of the pensions schemes applicable to the civilian jobs was necessary: the results are included in Appendix 7.

The results of the various remuneration surveys – for officers, for Corporals, and (three) for Warrant Officers and senior non-commissioned officers – which are not published were used, together with those of the pensions evaluation, by the Review Body as a guide to judgement in determining appropriate levels of military salary.

Reference

Review Body on Armed Forces Pay, Tenth Report 1981 – (Cmnd. 8241) (HMSO) May 1981 (Price £5.80 net).

Doctors' and dentists' remuneration

The Eleventh Report by the Review Body on Doctors' and Dentists' Remuneration, under the Chairmanship of Sir Robert Clark, was published in May 1981. It includes a table giving a further year's results (to April 1980) for the study of comparative movements in earnings at different levels based on the New Earnings Survey (Appendix C). The Review Body's detailed recommendations on remuneration are given in Appendix A. Appendix B provides details of the number of doctors and dentists in different sectors of the National Health Service for 1979 and 1980.

The Government Actuary was asked by the Review Body to evaluate the pension arrangements of doctors and dentists in the National Health Service; his report

appears as Appendix D which includes tables showing: annual average remuneration by age group for a specimen career pattern of a hospital consultant, general medical practitioner and general dental practitioner – Table 1, and evaluation of the main pension benefits in the form of contribution rates required to provide them – Table 2. The benefits of three typical private sector pension schemes are summarised and evaluated in Tables 3 and 4. Table 5 sets out employer's contribution rates, applying two extreme bases, for the three private sector schemes and specimen careers. Annex 2 of the Government Actuary's report shows the life expectancy of men between the ages of 30 and 65, and the probability of death in service and retirement from service between the ages of 27 and 65. Details of the specimen careers and private sector schemes are provided in Annexes 3 and 4.

Reference

Review Body on Doctors' and Dentists' Remuneration, Eleventh Report – (Cmnd. 8239) (HMSO) May 1981 (Price £4.60 net).

AGRICULTURE AND FOOD

Agricultural censuses and surveys

December 1980 Glasshouse census

- i. The main results of the December 1980 Glasshouse census were published in *Statistical Information Notice* STATS No. 138/81 on 13 May 1981.
- ii. The county/regional results (PSM) for England and Wales were published in May 1981.

The statistical material mentioned above may be obtained from:

Ministry of Agriculture Fisheries and Food,
Room A615,
Government Buildings,
Epsom Road,
Guildford GU1 2LD.

Milk production in the European Community

This report by the Agriculture EDC's Livestock Group, was published in June 1981. It describes the main aspects of the relative performance of dairy farming in the member states of the European Community, set against a background of varying cost and price conditions between 1970 and 1980. Input cost data and output price data are given in national currencies and in common currency units, to allow comparisons between countries to be made. Trends in unit production costs and producer prices are examined, and the resultant cost/price squeeze assessed. The report also examines a number of factors affecting competitiveness and survivability (in the face of a continued cost/price squeeze) and makes recommendations to the industry and government accordingly.

Reference

Milk production in the European Community – a comparative assessment (NEDO 1981) (Price £2.50 net) available from National Economic Development Office, Millbank Tower, Millbank, London, SW1P 4QX

INDUSTRIAL STATISTICS

Business Monitor PA1002—Annual Census of Production 1978

Summary Volume

The *Summary Volume* of the 1978 Annual Census of Production (PA 1002) is available price £12.50. As in previous years this summarises results previously published in the separate industry monitors (PA 101 to PA 603). It also provides analyses of the census data by enterprise and size analyses by net output, employment and sales.

Business Monitors—Annual Census of Production 1979

Readers of *Statistical News* are made aware of the results of the 1979 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*.

Business Monitor Number PA Series	Description	Standard Industrial Classification Minimum List Heading
101	Coal mining	101
102	Stone and slate quarrying and mining	102
103	Chalk, clay, sand and gravel extraction	103
104	Petroleum and natural gas	104
109	Miscellaneous mining and quarrying	109/1, 2, 3 and 4
213	Biscuits	213
218	Fruit and vegetable products	218
229.2	Starch and miscellaneous foods	229/2
239.1	Spirit distilling and compounding	239/1
239.2	British wines, cider and perry	239/2
240	Tobacco	240
261	Coke ovens and manufactured fuel	261
262	Mineral oil refining	262
263	Lubricating oils and greases	263
271.1	Inorganic chemicals	271/1
271.2	Organic chemicals	271/2
271.3	Miscellaneous chemicals	271/3
273	Toilet preparations	273
274	Paint	274
276	Synthetic resins and plastics materials and synthetic rubber	276/1 and 2
278	Fertilizers	278
279.1	Polishes	279/1
279.2	Formulated adhesives, gelatine, etc.	279/2
279.3	Explosives and fireworks	279/3
279.4	Formulated pesticides, etc.	279/4
279.5	Printing ink	279/5
279.6	Surgical bandages, etc.	279/6
279.7	Photographic chemical materials	279/7
334	Industrial engines	334
336	Construction and earth-moving equipment	336
338	Office machinery	338
339.1	Mining machinery	339/1

<i>Business Monitor Number PA Series</i>	<i>Description</i>	<i>Standard Industrial Classification Minimum List Heading</i>
342	Ordnance and small arms	342
349.2	Precision chains and other mechanical engineering	349/2 and 3
352	Watches and clocks	352
365.2	Broadcast receiving and sound reproducing equipment	365/2
369.4	Electric lamps, electric light fittings, wiring accessories	369/4 and 5
380	Wheeled tractor manufacturing	380
381.2	Trailers, caravans and freight containers	381/2
382	Motor cycle, tricycle and pedal cycle manufacturing	382
383	Aerospace equipment manufacturing and repairing	383
384	Locomotives, railway track equipment, railway carriages, wagons and trams	384, 385
390	Engineers' small tools and gauges	390
391	Hand tools and implements	391
394	Wire and wire manufacturers	394
395	Cans and metal boxes	395
399.1	Metal furniture	399/1
399.5	Drop forgings, etc.	399/5
399.8	Miscellaneous metal manufacture	399/8, 9, 10, 11 and 12
411	Production of man-made fibres	411
412	Spinning and doubling on the cotton and flax systems	412
414	Woollen and worsted	414
416	Rope, twine and net	416
417.1	Hosiery and other knitted goods	417/1
417.2	Warp knitting	417/2
418	Lace	418
419	Carpets	419
421	Narrow fabrics	421
423	Textile finishing	423
429.1	Asbestos	429/1
429.2	Miscellaneous textile industries	429/2
446	Hats, caps and millinery	446
449.2	Gloves	449/2
450	Footwear	450
461.2	Building bricks and non-refractory goods	461/2
462	Pottery	462
464	Cement	464
482.2	Packaging products of paper and associated materials	482/2
484.1	Wallcoverings	484/1
485	Printing, publishing of newspapers and periodicals	485, 486
489	General printing and publishing	489
494.1	Toys, games and children's carriages	494/1 and 2
494.3	Sports equipment	494/3
499.2	Miscellaneous manufacturing industries	499/2
602	Electricity	602

Copies of these Business Monitors are available on standing order from Her Majesty's Stationery Office, PO Box 569, London SE1 9NH (telephone 01-928 1321) or through any Government Bookshop. They are not, however, included in the global subscription arrangements of the Business Monitor series.

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

Mr R J Egerton
Business Statistics Office
Cardiff Road

NEWPORT

Gwent

NPT 1XG

Telephone Newport 56111 (STD Code 0633)

Extn 2455.

Business Monitor PA1003 – Analysis of UK manufacturing (local) units by employment size

A further Business Monitor in the PA 1003 series (Price £4.70 net) was published recently. It presents analyses for 1978 of information recorded in the register of United Kingdom manufacturing units maintained by the Business Statistics Office. Previous monitors in the PA 1003 series were published for each of the years 1971 to 1977 except 1974 and included tables showing the number of manufacturing units in various employment size groups by industrial classification and by area and the total number of persons employed in each category. More limited analyses of manufacturing units under foreign ownership and of manufacturing units grouped into enterprises appeared for the first time in the 1977 monitor and are shown again in the latest edition.

Enterprise zones

The Chancellor of the Exchequer announced in his Budget Speech in March 1980 that the government proposed to establish Enterprise Zones (EZs) in various areas of the country as part of an experimental approach to generating new economic activity in areas of economic and physical decay where more conventional policies had failed.

Part of the benefit of the zones is seen as reducing the burden placed on firms by government and, in introducing them, the Chancellor said that there would be 'minimal requests from government for statistical information'. A team of consultants has been engaged by the Department of the Environment to monitor the progress of the zones until the beginning of 1983 and some administrative data (e.g. on new buildings) will be available for statistical analysis. After inter-departmental discussion about the best way of meeting the commitment to reduce requests for statistical information bearing in mind the other data available the following conclusions were reached:

a. In order to be able to exempt firms operating in EZs from the regular statistical inquiries into output, fixed investment, etc. while continuing to make some allowance for this missing information when constructing national aggregates, it would be necessary to collect basic data on employment from time to time. The Census of Employment, which is simple to complete and is no longer to be held every year, should therefore cover firms in EZs.

b. Firms would not be asked to provide in-

formation about their activities in EZs in any statistical inquiry other than the Census of Employment, except where the firm was already a regular, voluntary contributor and was willing to continue to provide data.

c. The location of a firm's Head Office or statistical reporting unit in an EZ should not preclude the collection of information from that firm about its activities outside the zone.

d. Because of their administrative uses, firms in EZs will continue to complete Customs import and export documents.

e. These arrangements should be reviewed in two or three years time.

The Chancellor has agreed these proposals and Sir John Boreham, as Head of the Government Statistical Service, has asked all Principal Directors of Statistics to ensure that those concerned in their Departments are aware of the arrangements.

The Department of Environment is preparing lists of the postcodes covered by the zones to assist in checking mailing lists. The Survey Control Unit in the CSO will remind those planning *ad hoc* surveys of the new arrangements. Anyone requiring further information about Government statistics and Enterprise Zones should contact the Survey Control Unit at the Central Statistical Office, Great George Street, London SW1P 3AG (telephone 233 7341/8583).

Construction output

Results are now available from the new project-based construction enquiry: this inquiry provides detailed information on new work by region and type of work. Regional output by eight types of work and a more detailed type of work breakdown of GB output are being published: the quarterly series from the fourth quarter 1979 in *Housing and Construction Statistics Part 2*, quarterly, from No 5 and the annual 1980 figures in *Housing and Construction Statistics 1970-1980*. Further analyses are available on application to:

Statistics Construction Division
Department of the Environment
Room S12/12
2 Marsham Street
London SW1P 3EB

An article describing the new project-based enquiry, on which the estimates are based, appears in the July issue of *Economic Trends*. This article also gives details of revisions to current price figures, necessary because computer analyses making full use of the data from the third quarter 1979 have become available: also, improved estimation methods for both recorded and unrecorded output in the firm-based enquiry have been introduced from that date.

Reference

Housing and Construction Statistics Part 2 No 5 (HMSO) July 1981 (Price £2.50 net)
Housing and Construction Statistics 1970-1980 (HMSO) 1981 (Price to be announced)

Commercial and industrial floorspace (CIFS)

'*Commercial and Industrial Floorspace Statistics*' England 1977-1980 published annually by HMSO is expected to be available by mid-summer 1981, this is number 9 in the series.

It contains some 50 tables giving detailed figures, mainly at the national and regional level of the stock of floorspace in 1980 and major changes over the last 3 years. The information is categorised into use classes e.g., industrial, commercial offices, warehouses, shops and restaurants, etc., and the floorspace area is available for four group sizes.

An innovation in the 1980 publication is the introduction of a Statistical Review. This highlights some of the major patterns and relationships in the floorspace series over the period 1974-80 through the use of maps, graphs and charts.

CIFS are used widely in many fields including property development, corporate planning, marketing and research and management consultancy. More detailed information on important changes in floorspace down to local authority district level is available from:

The Department of the Environment,
Room S14/10,
2 Marsham Street,
London SW1P 3EB
Telephone: 01 212 8473

Reference

Commercial and Industrial Floorspace Statistics England 1977-80 (HMSO) 1981 (forthcoming)

Input-output tables for the United Kingdom 1974 Business Monitor PA 1004

The following amendment should be made:

Page 98, Table 0 Analysis of consumers' expenditure in 1974

Motor vehicles, row 59 column 7

delete 77 insert 777

Industrial performance

A booklet published by NEDO in 1980 and updated in February 1981, describes United Kingdom economic and industrial performance compared with that of its main competitors during the last decade.

A series of charts and graphs cover such subjects as: inflation, competitiveness; manufacturing trade performance, productivity, etc. The data sources used cover varying periods between 1958 and 1978.

Reference

British Industrial Performance (NEDO Price £1.00 net). Available from National Economic Development Office, Millbank Tower, Millbank, London SW1P 4QX

National Economic Development Office – papers

The following papers are available, free of charge, from NEDO, Millbank Tower, Millbank, London, SW1P 4QX.

Chemicals: contraction or growth looks at the nature of the crisis facing the United Kingdom chemical industry at the time of the report's publication by the Chemicals EDC in April 1981. It examines the reasons why it is essential to maintain a substantial and healthy industry in the United Kingdom in the medium and longer term. Detailed reports covering the main sectors of the industry – specialised organics, pharmaceuticals, dyestuffs, petrochemicals, inorganics and agriculture – will be published in the coming months, together with various topic reports covering, for example, R&D, health and safety, and new technology.

Non-price factors in the United Kingdom washing machine market: a hedonic approach is the first of a series of Economic Working Papers to be published by the National Economic Development Office. The paper continues NEDO's work on the measurement of non-price factors in British industry. Cross-section data for January and July 1979 are used to estimate a hedonic relationship between the prices and characteristics of a large sample of automatic washing machines available in the United Kingdom. The constructed quality and real price measures are used to analyse the development of the automatic washing machine market.

DEFENCE

Statement on the Defence Estimates (1981)

The Defence White Paper (*Statement on the Defence Estimates 1981*) published on 15 April 1981 again included a separate statistical volume. This volume contains 71 tables giving a range of statistical and financial information about the Armed Forces and the activities which support them. In general the tables show annual figures for the latest five years while financial and manpower forecasts are presented as appropriate for the forthcoming financial year (1981/82).

Further new material included in this edition relates to Service supply systems; Defence energy consumption; additional analyses of strengths of Service personnel by age, rank and location; the recruiting problem which may occur later in the decade; numbers of United Kingdom Service personnel invalided out; Service entertainment and welfare. In addition there are two summary tables and two tables, based on National Income Blue Book figures, showing defence expenditure in the national economic context. Additional figures from trade sources (Society of British Aerospace

Companies and others) are given to improve the coverage of defence equipment exports shown.

Reference

Statement on the Defence Estimates 1981, Volume 2 Defence Statistics (Cmnd 8212-II) (HMSO) April 1981 (Price £5.00 net).

ENERGY

Digest of United Kingdom Energy Statistics 1981

The 1981 Digest, prepared by Economics and Statistics Division in the Department of Energy, is due to be published at the end of July. It contains almost 100 tables and 7 pages of maps and charts. Most of the material from the 1980 Digest has been retained with some improvements and extensions and three new tables have been added.

A new table in the Coal section shows imports of coal in 1980, analysed by type of coal and by country (including the European Communities).

A new table in the United Kingdom Oil and Gas Resources section shows total petroleum production, broken down by crude oil, condensates and other petroleum gases. Figures are shown from 1975 to 1980.

In the Prices and Values section a new table shows average family expenditure on various fuels in each of the six previous years up to 1979 (the latest available).

Reference

Digest of United Kingdom Energy Statistics 1981 (HMSO) July 1981 (Price to be announced).

SERVICES

Services sector

Number 8 in the National Economic Development Office's series of Discussion Papers deals with the services sector. The report looks at the role, performance and prospects of the services sector in the United Kingdom. It describes the growth of output and employment in the sector and compares trends in the United Kingdom with those in other industrial countries. It also assesses the sector's productivity and trading performance – an analysis hampered by the deficiencies in the statistical data. The report analyses the contribution of the services sector to the wealth and welfare of the United Kingdom, and to the growth of its economy. It concludes that its contribution is generally underestimated. Given our growing dependence on services, paying insufficient attention to them may cause us to miss valuable opportunities in the future.

Reference

NEDO Discussion Paper No 8, *The services sector – a poor relation* February 1981 (Price £2.00 net). Available from NEDO, Millbank Tower, Millbank London SW1P 4QX.

TRANSPORT

Statistics of road accidents

The 1979 edition of *Road Accidents Great Britain* was published in June 1981 by the Department of Transport, the Scottish Development Department and the Welsh Office. It presents thirteen tables of trends in road accidents and casualties since 1969, thirty two detailed tables and four charts portray 1979 statistics for Great Britain. Five tables provide comparisons between England, Wales and Scotland and one shows international comparisons.

Compared with previous editions there are more detailed notes and definitions and a somewhat longer review of road accidents covering nine topics. In particular the Revised Road Accident Report Form (Stats 19) introduced progressively since 1978 and now in general use, is reproduced and described. Some extra tables in the article, illustrate the potential of the new system for detailed investigation of road accidents both locally, by police and local authorities, and nationally by the Department of Transport and associated organisations.

Summary information for the year 1980 has since been issued and can be purchased on application to Department of Transport, B2.42, Romney House, London SW1 3PY, Telephone 01-212 6763.

Reference

Road Accidents Great Britain 1979 (HMSO) June 1981 (Price £5.00 net).

HOME FINANCE

National accounts

The National Accounts – A short guide, published in August gives a general description of national income and expenditure accounts and a detailed commentary on the structure of the annual Blue Book on *National Income and Expenditure*. It sets out the main definitions and concepts used in the national accounts, suggests some of the uses of the main aggregates and describes how the aggregates relate to each other and to public sector accounts and the main monetary measures.

The guide describes the tables of the *National Income and Expenditure* Blue Books, describes how the contents of each table relate to other sections of the Blue Book and comments on the significance of some of the items. The description is illustrated by statistics taken from the 1980 edition of the Blue Book.

An index at the end of the guide serves both as a key to the guide and as a systematic index to the Blue Book itself.

The guide is designed both for those who want to make a foothold in the subject and for those who intend to operate with the tables. It has been written for the

Central Statistical Office by Mr Harold Copeman, presently a Visiting Fellow at the University of Warwick and formerly an Under-Secretary in the Treasury. It is published in the Studies in Official Statistics series.

Reference

Studies in Official Statistics No 36 *The National Accounts – A short guide* (HMSO 1981) (Price £5.50 net).

National Income and Expenditure – 1981 Edition

The 1981 edition of *National Income and Expenditure* (Blue Book) will be published in mid-September 1981.

Sector financing

An article in the Bank of England's June *Quarterly Bulletin* reviews the main developments between sectors of the economy in 1980. It includes a full set of the Bank's financial transactions (formerly flow of funds) tables, including one of transactions by individual groups of 'other financial institutions', and a breakdown by type of security of the various sectors' transactions in UK company and overseas securities. The format of the financial transactions matrix has been substantially changed and now provides additional detail enabling the user to trace the financing of the public sector borrowing requirement and the make-up of the money supply. Useful breakdowns which have become available in recent years, such as the division of bank deposits between sterling sight, sterling time and foreign currency and the identification of transactions in overseas securities are also given. The new format of the matrix has been evolved in discussion with the Central Statistical Office and is the same as that now published in *Financial Statistics*.

The Bank's *Quarterly Bulletin* (at £4 per copy) may be obtained from:

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

Profitability and company finance

An article in the Bank of England's June *Quarterly Bulletin* provides revised and updated estimates of real profitability, cost of capital, and other information on the finance of companies. In particular, attention is paid to the pre-tax and post-tax real rate of return on trading assets and on the equity interest; the real cost of capital and the value ratio; and the appropriation of income, income gearing, capital gearing, and sources and uses of funds. Earlier articles on this and on closely-related topics appeared in the March and June 1976 issues of the

Bulletin, in supplementary notes which appeared in the June 1977, June 1979 and June 1980 issues and in articles in the December 1978, December 1979 and March 1981 issues.

The Bank's *Quarterly Bulletin* may be obtained at the above address.

'Real' national saving and its sectoral composition

A supplementary note in the Bank of England's June *Quarterly Bulletin* presents revised and updated estimates of Sectoral Saving and financial balances adjusted for the effects of price inflation on net monetary assets and liabilities, using the method set out in the Bank's Discussion Paper No. 6, *'Real' national saving and its Sectoral Composition* by C T Taylor and A R Threadgold. In line with this discussion paper, this note defines 'real' income to be the value which an individual could consume without any change in the real value of his net monetary assets. 'Real' saving is the difference between 'real' income and the actual consumption.

The Bank's *Quarterly Bulletin* may be obtained from the above address. The discussion paper may be obtained from University Microfilms International, 30-32, Mortimer Street, London W1N 7RA or 300 North Zeeb Road, Ann Arbor, Michigan 48106, USA.

Seasonal adjustment of money and its counterparts

The Bank of England's June *Quarterly Bulletin* contains an article describing some of the more significant methodological changes made this year in estimating monthly seasonal adjustments for the money supply and its counterparts, and illustrates their effect on the underlying trend. Specific attention is paid to the treatment of the central government borrowing requirement, petroleum revenue tax, bank lending and deposits and the effects on sterling M3.

The Bank's *Quarterly Bulletin* may be obtained from the above address.

Developments in co-operation among banking supervisory authorities

An article in the Bank of England's June *Quarterly Bulletin* reviews the growth in the co-operation which has taken place during recent years from the particular perspective of the Committee on Banking Regulations and Supervisory Practices meeting at the Bank for International Settlements in Basle which has provided a focal point for that co-operation.

The Bank's *Quarterly Bulletin* may be obtained from the above address.

Financial statistics

The summary figures of financing of the central government borrowing requirement and figures for local

authority borrowing were published one month earlier than hitherto from the May issue of *Financial Statistics*.

The June edition introduced a new table on the liabilities of the monetary authorities (the monetary base). A new supplementary table was also introduced showing outstanding government and other public sector foreign currency borrowing.

The 1981 Edition of the *Explanatory handbook to Financial Statistics* was published in April. This was the fourth edition and updated the 1980 handbook. It contains many individual changes but the main ones reflect the introduction, modification or dropping of tables since April 1980. The biggest change was the recasting of Section 1 to reflect the new financial accounts transactions matrix and time series tables, introduced in the April 1981 issue of *Financial Statistics* and described in *Statistical News* No 53.

References

Financial Statistics (HMSO, monthly) (Price £6.50 net)

Financial Statistics Explanatory handbook (HMSO) (Price £5.95 net)

'New financial transactions accounts', Allan G. Tansley, *Statistical News*, No 53, May 1981 (HMSO) (Price £2.95 net).

OVERSEAS FINANCE

Balance of payments; invisibles transactions with Japan

The United Kingdom has a large visible trade deficit with Japan.

According to figures published by the Bank of Japan, the United Kingdom earns a surplus on its invisible trade with Japan which is sufficient to bring the overall trade account into broad balance. In 1979, for example, the Bank of Japan estimate for the United Kingdom surplus on invisibles was over £900 million, which would have more than offset our large deficit on visible trade. An article by the Department of Trade in *British business*, however, gives for the first time Central Statistical Office (CSO) estimates which indicate that our surplus with Japan on invisibles in 1979 was no higher than £225 million.

The main reason for the discrepancy is that the Bank of Japan figures are presented on a gross basis such that when payments are made through the United Kingdom acting as an intermediary, the total amounts are attributed to Japan's invisible trade with the United Kingdom, even though most of the money is passed on to third countries. The newly-published CSO estimates, however, include only the margin on such transactions that is earned and retained in the United Kingdom. Shipping is one industry for which this difference is important and the treatment of interest on foreign currency borrowing and lending by United Kingdom banks also accounts for a large part of the discrepancy. United Kingdom banks often act in the foreign currency markets as intermediaries between lenders and borrowers outside

the United Kingdom. In these cases, only the margin on the business of the United Kingdom bank is included in United Kingdom statistics on invisibles. It seems that the Bank of Japan's figures, however, attribute to the United Kingdom total Japanese interest payments arising from such dealings, although most of these accrue to lenders in other countries.

Reference

British business 17 April 1981 (HMSO) (Price 95p net).

United Kingdom Balance of Payments – 1981 Edition

The 1981 edition of the *United Kingdom Balance of Payments* (Pink Book) will be published in early September 1981.

An inventory of UK external assets and liabilities: end-1980

An article in the Bank of England's June *Quarterly Bulletin* continues this annual series. It is estimated that the United Kingdom had a net external asset position of £15 billion at the end of 1980. Some £4 billion higher than the (revised) estimate for end-1979. Gross external assets and liabilities now each exceed £200 billion.

The Bank's *Quarterly Bulletin* (at £4 per copy) may be obtained from:

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

A review of the world economy

The Bank of England's June *Quarterly Bulletin* contains the text of a speech given by the Governor of the Bank at the Financial Times lunch for representatives of the foreign banking community in London on 27 May 1981.

In discussing the world economy, the Governor made the following points:

i. Countries have not only generally adjusted better to the second large rise in oil prices than to the first. Even more encouraging, they are saving in the use of both energy in general, and oil in particular.

ii. The banks and the international financial institutions both have key roles in the recycling process. It is important that official lending should continue to be accompanied by appropriate programmes for economic adjustment.

iii. European success in combating inflation depends heavily on corresponding success in the United States. High US interest rates, arising from a tight anti-inflationary policy, have created awkward policy dilemmas for some other European countries by putting pressure on their interest rates and ex-

change rates. In these circumstances, some resort by them to exchange market intervention is understandable.

iv. It is in our interest that the United States follow firm policies in both the monetary and fiscal fields even if they are not those most immediately comfortable for us to live with.

The Bank's *Quarterly Bulletin* may be obtained from the above address.

Financing world payments balances

An article which appeared in the Bank of England's June *Quarterly Bulletin* describes the pattern of current account surpluses and deficits in the world economy and the changing importance of different types of capital flow in financing them. The article makes the following points:

i. Since the first oil shock in 1973-74, the absolute sum of world current account surpluses and deficits (without regard to sign) has doubled from 1 per cent-1½ per cent of the GNP of market economies to 2 per cent-3 per cent.

ii. Before the early 1970s, surpluses and deficits were financed largely by flows of direct investment and concessionary capital. Since then, the larger imbalances have been financed principally through the capital markets.

iii. The banks have played an important role, but their lending has not always grown fastest when financing needs appear to have been greatest.

iv. The changing pattern of financing and the increased size of surpluses and deficits have led to a rapid expansion in international financial assets and liabilities. Their real value has been substantially reduced by inflation, this has to some extent been offset by high interest rates, which in turn have altered the pattern of current account surpluses and deficits.

v. The structural current account surplus of the oil exporters tends to be reduced by their rapidly expanding demand for imports and as their customers find ways of economising on relatively expensive oil.

vi. Although the pattern in which increased current account deficits have been financed has exerted certain contractionary pressures on the international economy, the extent to which those deficits have nevertheless increased reflects the ability of the international financial system to respond rapidly to increased financing needs: without such flexibility, further deflation would have been unavoidable.

The Bank's *Quarterly Bulletin* may be obtained from the above address.

Foreign currency exposure

An article in the Bank of England's June *Quarterly Bulletin* sets out the basis on which the Bank will measure, monitor and discuss with banks and licensed deposit-taking institutions their exposure to movements in exchange rates. The paper reflects the outcome of consultations with the banking community on the discussion paper on the same subject issued in the December 1979 *Quarterly Bulletin*, following the Governor's letter to banks of 23 October 1979. The arrangements will form part of the regular process of supervision and be included within the scope of prudential interviews.

The Bank's *Quarterly Bulletin* may be obtained from the above address.

OVERSEAS AID

Official development assistance in 1980

Net official development assistance to developing countries in 1980 amounted to £767 million, equivalent to 0.34 per cent of GNP. This figure was given in a written Parliamentary Answer on 13 April 1981. The figure is net of capital repayments of past aid loans.

The figure shows a substantial fall from the (revised) 1979 total of £992 million equal to 0.52 per cent of GNP. This fall is largely due to technical factors. The implementation of the Sixth capital replenishment of the International Development Agency was delayed because the previous United States Congress did not ratify the agreement. The United Kingdom was thus unable to make its planned £185 million contribution in 1980. The other factor was that bilateral drawings by certain recipients, notably India, were slower than anticipated.

The main components of net oda in 1980 were bilateral capital grants and loans (£317 million, 41 per cent of the total), bilateral technical co-operation (£219 million, 29 per cent) and multilateral aid (£231 million, 30 per cent).

The bulk of oda comes from the Aid Programme administered by the Overseas Development Administration (ODA). However that part of the contribution by other government departments to the budgets of multilateral agencies (e.g. WHO, UN, ILO) which is estimated to be spent on development activities is also included.

In addition to oda there are other official flows (oof) to developing countries on terms not sufficiently concessional to qualify as oda although broadly intended for developmental purposes. In 1980 these comprised £25 million of Commonwealth Development Corporation loans (net of repayments), £239 million of interest subsidies in support of export credits, but were offset by £316 million of repayments of officially financed export credits and £17 million repayments of ODA loans. Thus total net other official flows were negative in 1980.

For further information on United Kingdom aid flows to developing countries see *British Aid Statistics* published annually by HMSO. The next edition is due out later this year. A summary of the main figures is given in the glossy card *British Aid in Figures* which should be available shortly from the Information Department of ODA.

References

- British Aid Figures*, (free of charge). Available from:
Information Department
Overseas Development Administration
Eland House
Stag Place
London SW1E 5DH
British Aid Statistics (HMSO 1981) (forthcoming).

OVERSEAS TRADE

Statistics of trade through United Kingdom ports

The 1979 edition of *Statistics of Trade through United Kingdom Ports* was published in May. This digest which was formerly published quarterly and annually by HMSO will in future be produced, published and distributed by HM Customs and Excise Statistical Office.

The contents of the publication remain unchanged, providing in six tables the tonnage and value of imports and exports through United Kingdom ports and airports. Table I (imports) and Table IV (exports) show total trade by United Kingdom Economic Planning Regions and individual ports. These totals are then analysed in more detail – in Tables II (imports) and V (exports) by Overseas Trading Area and in Tables III (imports) and VI (exports) by Divisions of the Standard International Trade Classification (Revision 2).

Copies of the 1979 edition may be obtained, price £11 post paid, from:

The Bill of Entry Unit
HM Customs and Excise Statistical Office
Room 603
Portcullis House
27 Victoria Avenue
Southend-on-Sea
SS2 6AL
Telephone: 0702 – 49421 Ext. 310 or 311

How the United Kingdom's overseas trade is measured

Overseas trade figures are among the most important statistics put out by the government. Each month the balance of payments figures, which deal mostly with visible trade are published in *British business*. In the issue dated 8 May 1981 Graham Jones, a statistician in the Departments of Industry and Trade, describes the way in which overseas trade is measured in the United Kingdom and how many of the problems are overcome. The object is to give users of trade statistics a greater

understanding of the data in which they are working.

Reference

British business, 8 May 1981, Pages 77-79 (HMSO) (Price 95p net).

PUBLICATIONS

RUC: Chief Constable's Report

The Chief Constable of the Royal Ulster Constabulary has published his annual report for 1980. This edition follows the usual format and the various chapters provide information on some of the following headings:

The Year Under Review; Personnel and Training; Public Order; Crime; Traffic; Community Relations; Specialist and Support Services; Auxiliary Formations.

Statistical appendices provide tabular data on Personnel and Training; Crime; Terrorist Crime, Traffic, and Miscellaneous such as Betting and Gaming, Street collections, Lost property, Stray dogs, etc.

The Report is available from the Chief Constable and further details may be obtained from him at the following address:

Brooklyn
Knock Road
Belfast BT5 6LE

National Institute Economic Review No 96

A special article appeared in the May issue of the *National Institute Economic Review* (Price £7.00 net: Overseas £10.00 including postage). Written by David G. Mayes, the article is entitled 'The Controversy Over Rational Expectations'.

The purpose of this article is to examine in a non-technical manner the contribution of the hypothesis of rational expectations to the explanation of how people form expectations of the values of economic variables. In particular the article draws conclusions for what the hypothesis may and may not imply for the formation of macro-economic policy in the United Kingdom. There is a short annotated bibliography at the end of the article.

National Economic Development Council – papers

The following papers are available free of charge from NEDO, Millbank Tower, Millbank, London, SW1P 4QX.

Industrial trends and prospects (NEDC Paper (81)6) was discussed by the National Economic Development Council in February 1981. The paper points out that since 1973, trade and output in developed countries have grown much less rapidly than in the 1950s and 1960s, and this trend is expected to continue over the next few years. The United Kingdom, even during the period of fast world growth, grew more slowly than its competitors.

An Annex to the paper looks briefly at past trend macro-economic growth rates and at forecasts up to 1984 in the OECD and the United Kingdom. It considers past trends in output, employment and output per head by industry in the United Kingdom, and compares the United Kingdom with other developed industrial economies, particularly West Germany. The Annex assesses how certain factors will affect individual industries, and draws together potential areas of United Kingdom growth, stability and decline.

Industrial trends: the regional dimension (NEDC (81)17), a paper for the National Economic Development Council, quantifies the contributions of industries to output and employment in the regions and countries of the United Kingdom, with particular reference to the contributions of the faster and slower growing industries identified in Paper NEDC (81)6.

Overall, the favourable position of the South East stands out, although the North and North-West are also quite well placed. Northern Ireland is by far the least well placed in terms of the shares of faster and slower growing industries in output and employment, but Wales, the East and West Midlands, and Yorkshire and Humberside are also poorly placed.

The report on industrial energy prices (NEDC (81)15) was drawn up by the NEDC Energy Task Force at the request of the National Economic Development Council. The report examines the disparities in the price of energy to industrial users in the United Kingdom compared with other countries, with particular reference to energy-intensive industries. Based on detailed discussions with the main fuel industries, the trade associations and representatives of the energy-intensive industries, the report makes quantitative assessments of the prices of individual fuels and suggests reasons for the disparities which emerge.

Interdependence of the public and private sectors in the United Kingdom (NEDC (81)25) is one of the papers discussed by the National Economic Development Council and subsequently made publicly available. The paper looks at the relative size of the public and private sectors, the extent and significance of trading between them and the role of public non-marketed services. It also considers the extent to which the sectors may be viewed as being in conflict with each other because they represent competing claims on financial resources.

Statistical information service of the Chartered Institute of Public Finance and Accountancy (CIPFA)

Some thirty annual booklets giving detailed information on the main services of local authorities are planned for 1981-82. The subjects to be covered are: airports, cemeteries, crematoria, education, financial, general and rating, fire, homelessness, housing, housing rents, housing revenue account, housing management and maintenance, leisure and recreation, leisure charges, personal social services, planning and development, police, public library, rate collection, outstanding debt, waste collection, and waste disposal.

Also due to be published is the annual digest of statistics *Local Government Trends* and the two reference volumes *Statistical Techniques* and *Community Indicators*.

The complete service is available by subscription. Any organisation or individual may purchase specific publications either by standing order or on an *ad hoc* basis.

For further details, apply to:

The Director
CIPFA
1 Buckingham Place
London SW1E 6HS

Annual Abstract of Greater London Statistics

The 1978 and 79 volume of the *Annual Abstract of Greater London Statistics* is now available. This volume has been compiled in the Director General's Department of the Greater London Council. It contains what normally would have been the contents of both volumes 13 and 14. The volume covers two years so as to make up the time needed to develop and introduce new computerised methods of production. After this volume individual tables or pages of data can be available before the volume to which they belong is published.

The volume covers many spheres of data including elections, population, transport, health and social services, housing, protective services, cultural services and local government finance.

Reference

1978 & 79 Annual Abstract of Greater London Statistics (Volume 13/14) (GLC, 1980) (Price £12.00 in the UK only).

Establishing a quality assurance function for software

The introduction of a software quality assurance (QA) function can result in a substantial reduction in software development and maintenance costs, according to a new guide published by the Electronic Engineering Association.

The guide, written to help software users establish a software quality assurance procedure, stresses that software design should be treated as a serious engineering discipline with all the basic engineering functions, in-

cluding good quality assurance. Software, states the guide, should not be left to the last minute which is often the case. It should be developed alongside the hardware in a professionally organised manner.

The guide, which includes many useful comments aimed at highlighting some of the problems in establishing a software QA function covers all aspects of software QA. It analyses the levels of responsibility and outlines interfaces required between the QA function and other engineering operations, both within the organisation and outside.

Several aspects of the support required are introduced, including software standards, tools and defect analysis.

Cost effectiveness of software quality assurance is discussed with useful information on the objectives to be achieved if the Function is to be implemented effectively.

Organisations which have a quality assurance function already will find the guide a useful yardstick for comparison and may well discover aspects presented which could help them to effect improvements.

Reference

Establishing a Quality Assurance Function for Software (Electronic Engineering Association 1981) (Price: Members £1.00, Non-Members £2.00 including P & P in the United Kingdom). For further information contact:

The Senior Technical Executive
Electronic Engineering Association
Leicester House
Leicester Street
London WC2H 7BN
Telephone: 01-437 0678
Telex: 263536 A/B 263536 ELECT G

Construction cost and price indices

A new book by Brian A Tysoe, entitled *Construction Cost and Price Indices: Description and Use*, has just been published.

This book describes the background, history, formation and use of the more frequently used published construction cost and price indices. It generally provides a detailed description of each index outlining the content limitations and includes guidance on their use.

It explains the difference between factor cost indices, tender price indices and output price indices. Most of the uses to which construction cost and price indices are put are explained.

For most of the indices in common use this book provides values for the past ten years in both tabulated and graphical form. A hypothesis on how to produce tender prices for engineering installations from present data is put forward. It contains a glossary of the relevant terms and appraises the benefits of using indices.

Reference

Construction Cost and Price Indices: Description and Use, by Brian A Tysoe (E & F N Spon Ltd 1981) (Price £9.50 net).

GOVERNMENT STATISTICAL SERVICE

Reorganisation of the Central Statistical Office

Consequent upon the *Appointments and changes* item below the organisation of the Central Statistical Office has been rearranged with effect from the 1 August 1981.

The International Section and Branch 1 – GSS policy, budgeting, and Statistician Group management report to the Director.

Mr J A Rushbrook assumes responsibility for the national accounts, input-output and production accounts, the index of industrial production, GDP(O), and economic assessment and cyclical indicators (Branches 2 to 4).

Mr J Wells assumes responsibility for domestic finance and public sector, balance of payments, Survey Control Unit, GSS computing, and research and special studies (Branches 5 to 7).

Mr K G Forecast assumes responsibility for press and publications, computer services, and social and regional statistics. (Branches 8 to 10).

Birthday Honours 1981

Mr John Lane, lately Deputy Director of the Central Statistical Office was awarded the CB.

Appointments and changes

Mr John Lane, Deputy Director, Central Statistical Office, retired on 31 July 1981.

Mr J A Rushbrook, Chief Statistician, Central Statistical Office, was temporarily promoted to Under Secretary from 1 July 1981 *vice Mr J Hibbert* who is on six months special leave as a consultant for OECD and Eurostat.

Mr J R Calder, Chief Statistician, Central Statistical Office, transferred to the Inland Revenue on 1 July 1981. On the same day *Mr D W Flaxen*, Chief Statistician, moved from the Inland Revenue to the Central Statistical Office.

Mr E J Thompson has taken over the functions of Principal Director of Statistics and Head of Profession, for the Departments of Environment and Transport from 11 May 1981 in addition to his functions as Director of Statistics (Transport). *Mr A A Sorrell* continues as Director of Statistics for the Department of the Environment on a part time basis.

Review of Statistical Services in the Department of Employment

The review of statistical services in the Department of Employment, conducted as part of the review of the Government Statistical Service co-ordinated by Sir Derek Rayner, has now been completed. A summary of the recommendations and the proposed action to be taken on them is provided by an Action Report which has been approved by the Secretary of State for Employment and published in the May 1981 issue of *Employment Gazette* for information and comment from users. The report of the review itself, extending to about 270 pages, is available from the Department.

A separate note in the May *Gazette* gives further details of planned changes affecting earnings surveys and the compilation of wage rate information from collective agreements. It indicates the scope for substituting related series for those which are to be discontinued, and invites comments from users on particular problems which may arise.

Reference

Employment Gazette, May 1981 (HMSO £2.00)

Review of Statistical Services in the Department of Employment see following item for price and address.

Reports on the statistical services

Copies of Sir Derek Rayner's report and reports of the examinations which were completed for Departmental Ministers, with a note of the decisions which have been taken, may be obtained from the addresses shown below. A full set of reports may be obtained (price £100.00) on application to the first address. Prices include postage. Cheques should be made payable to the Department concerned.

<i>Report</i>	<i>Price</i>	<i>Address</i>
Sir Derek Rayner's report to the Prime Minister	£2.90	Press and Information Office, Central Statistical Office, Great George Street, London SW1P 3AQ
Central Statistical Office	£3.50	as above
Ministry of Agriculture, Fisheries and Food	£9.50	Information Division, 3 Whitehall Place, London, SW1A 2HH
Civil Service Department	£1.00	CSD Library, Old Admiralty Building, Whitehall, London SW1A 2AZ
HM Customs and Excise	£5.00	General Information Branch, Room 024, King's Beam House, Mark Lane, London EC3R 7HE
Ministry of Defence	£3.00	Management Services (Organisation Division), Northumberland House, Northumberland Avenue, London WC2N 5BP
Department of Education and Science	£3.50	Statistics & Computing Services Branch, Room 16/6, Elizabeth House, York Road, London SE1 7PH
Department of Employment Manpower Services Commission	£12.50	Information 4, Caxton House, Tothill Street, London SW1H 9NF
Department of Energy	£4.00	Mrs Goonasena, Library, Thames House South, Millbank, London SW1P 4QJ
Departments of the Environment and Transport	£9.00	Mrs Stannard, 9 Rochester Row, London SW1P 2RA
Foreign and Commonwealth Office (Overseas Development Administration)	£2.25	Overseas Development Administration Library Room 102, Eland House, Stag Place, London SW1E 5DH
General Register Office (Scotland)	£2.00	New Register House, Edinburgh EH1 3YT
Government Actuary's Department	£1.75	22 Kingsway, London WC2B 6LE
Health and Safety Executive	£2.75	Director of Information, Room 158, Baynard's House, 1 Chepstow Place, London W2 4TF
Department of Health and Social Security	£6.00	Information Division, Block 4, Government Buildings, Honey Pot Lane, Stanmore HA7 1AR
Home Office	£5.00	Home Office Statistical Dept., Room 1617, Tolworth Tower, Surbiton, Surrey KT6 7DS
Inland Revenue	£5.00	The Reference Room, Inland Revenue Library, Room 8, New Wing, Somerset House, London WC2 1LB
Departments of Industry and Trade	£4.00	Miss M Hitchcock, Room 280, 1 Victoria Street, London SW1H 0ET
Lord Chancellor's Department	£5.00	Mr D Edmonds, Room 207, Neville House, Page Street, London SW1P 4LS
Northern Ireland Departments	£2.50	Policy Planning and Research Unit, Room 249A, Department of Finance, Stormont, Belfast BT4 3SW
Office of Population Censuses and Surveys ¹	£2.00	The Library, St Catherine's House, 10 Kingsway, London WC2B 6JP
Scottish Office	£5.00	The Librarian, New St Andrew's House, St James Centre, Edinburgh EH1 3SX
Welsh Office	£3.50	Economics and Statistics Division, Cathays Park, Cardiff CF1 3NO

¹Initial study only. The major recommendations on OPCS are contained in Sir Derek Rayner's report to the Prime Minister (see above).

LATE ITEMS

Indexes to the Standard Industrial Classification Revised 1980

Numerical and alphabetical indexes are due for publication, in one volume, about the end of October. The aim is to provide a list of typical products or activities for each heading of the Standard Industrial Classification Revised 1980 as well as an index of the headings under which different activities appear in the Classification.

The numerical index lists each heading of the Standard Industrial Classification (SIC) followed by a list of characteristic activities included within that heading.

In the second index those activities have been arranged in alphabetical order. Alongside each is the heading to which the activity is classified. These activities may be known under different names. Some activities have been classified in the alphabetical index under several alternative titles but it has obviously not been possible to list all variations.

Both indexes also include references to the Standard Industrial Classification Revised 1968 and to the General Industrial Classification of Economic Activities within the European Communities, more commonly known as NACE. These are included to assist users of the Classification but it must be borne in mind that when the Standard Industrial Classification Revised 1968 was devised less detailed information was available which made it difficult to allocate some activities. NACE lacks a comprehensive index so these references are, therefore, the Central Statistical Office's interpretation of that classification. In some cases reference could only be made to Group level but in most cases reference is to the Sub-group level of NACE.

The publication is a companion volume to the Standard Industrial Classification Revised 1980 which contains details and descriptions of the Classification and was published in 1979. A detailed reconciliation between the SIC Revised 1980 and the SIC Revised 1968 which also includes a brief summary of some of the major differences between the two classifications was issued in 1980. This should assist firms and other organisations wishing to make preparations for the transition to the 1980 Classification before it is generally adopted in 1983.

Copies of the 'Reconciliation' are available only from the Central Statistical Office, Great George Street, London SW1P 3AQ. Price £1.50 including postage. All remittances should be made payable to the Cabinet Office.

References

Standard Industrial Classification Revised 1980 (HMSO 1979) (Price £2.50 net)
Indexes to the Standard Industrial Classification Revised 1980 (HMSO) 1981 (Price to be announced)

National Accounts

Movements in costs and prices

An article in the August issue of *Economic Trends* presents an analysis of movements in costs and prices in the UK over the period 1973-79. The article describes a statistical examination of these movements within the framework of the National Accounts. The analysis is based on a breakdown of the rise in the cost of total final expenditure into the contributions made by the components of TFE, on both the input and expenditure sides. The contributions to the overall rise in TFE made by price and volume changes in the components are also examined.

Reference

Economic Trends, No 334, August 1981 (HMSO) (Price £8.50 net.)

Civil Service Pay Research Unit

The third annual report to the Prime Minister of the Civil Service Pay Research Unit Board and the Civil Service Pay Research Unit was recently published, price £2.70 net. The Board's report covers the work over the past year along with some comment on the future role of the Board. The Unit's report covers the operations of the Unit up to the time of the suspension, and also covers the survey done for the Civil Service industrial staff, the study on pay related to performance, and the work done for the Standing Commission on Pay Comparability.

Alphabetical Index

The index to *Statistical News* covers the last nine issues. Page numbers are prefixed by the issue number, e.g. 49.30 signifies number 49, page 30.

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 earnings. Articles and notes dealing particularly with Scottish statistics are indexed under 'Scotland' as well as the topic, e.g. 'Scotland, population projections', and similarly for Wales and Northern Ireland.

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