31

NOVEMBER 1975

CSO

HMSO 55p net

STATISTICAL NEWS

Developments in British Official Statistics

A publication of the Government Statistical Service

Note by the Editor

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

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

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

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.

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

Subscriptions and sales enquiries should be addressed to Her Majesty's Stationery Office at PO Box 569, London SE1 9NH or any of the addresses listed on back page of cover.

CENTRAL
STATISTICAL
OFFICE

NOVEMBER 1975

Statistical News No. 31

Developments in British Official Statistics

LONDON
HER MAJESTY'S STATIONERY OFFICE

Articles in recent issues of *Statistical News*

No. 24 February 1974

Personal social services statistics	D. S. S. Hutton and H. D. Mitchell
Commodity classifications and codings	M. J. G. Lockyer
Estimating entitlement to Family Income Supplement	H. D. Elton
The 1972 origin/destination survey at London's airports	Note by the Civil Aviation Authority

No. 25 May 1974

Government social statistics	Muriel Nissel
Manpower planning – a case study	P. L. Ashdown
Methods of forecasting the quantities of freight in Great Britain	A. H. Brown and A. S. Maultby
Monitoring industrial activity during the emergency – the use of weekly production figures	J. D. Wells

No. 26 August 1974

The use of statistics in health planning	W. Rudoe
Reorganization of work on aid statistics	A. Finkle

No. 27 November 1974

Development of statistical regions in the United Kingdom	D. B. Kent-Smith and A. Pritchard
Applied statistics for developing countries	K. V. Henderson

No. 28 February 1975

The distribution of wealth and the relevance of age	J. A. Astin
Multivariate socio-economic area classifications	J. Craig
Population projections	Derek Renn

No. 29 May 1975

Problems of seasonal adjustment	P. B. Kenny
The National and Local Government Statistical Liaison Committee	Jane Peretz and Ron Cooke
Social statistics: Comparisons of various national publications	R. A. J. Webb

No. 30 August 1975

Statistics and economic theory in the USSR	L. Volodarsky
The developing wider use of the input – output approach to economic monitoring and forecasting	Owen Nankivell
Anatomy of a postal survey	A. J. Power and J. A. Beaumont
The deployment of staff in the Government Statistical Service	J. C. Pite
Estimating the characteristics of non-respondents in the General Household Survey	R. Barnes and F. Birch
Ask a silly question!	P. W. Brierley
Cohorts and cusums	B. H. Mahon

ISBN 0 11 723285 8

Contents

NOVEMBER 1975

NOTES ON CURRENT DEVELOPMENTS

Compensation for personal injury: Statistical work for the Royal Commission on Civil Liability

By **J. R. Calder**, *Statistician, Central Statistical Office*

Introduction

The Royal Commission on Civil Liability and Compensation for Personal Injury was set up, under the chairmanship of Lord Pearson, in March 1973 to consider what arrangements there should be, in the United Kingdom, for compensation in respect of fatal and non-fatal injuries (including ante-natal injury) 'having regard to the cost and other implications of the arrangements for the recovery of compensation whether by way of compulsory insurance or otherwise.' The Royal Commission was established following publication of the Robens Report on Safety at Work and against a background of concern about cases like the thalidomide tragedy and of a number of recommendations here and overseas in favour of setting up or extending compensation systems of the 'no-fault' type, which do not require an injured person when claiming compensation to establish that someone else was at fault in causing his injury. This article describes the work which is being done within the Government Statistical Service in connection with the Royal Commission.

Background

Broadly speaking, there are three methods in the United Kingdom by which an individual can obtain compensation for, or income support in consequence of an injury: claim at law, the social security system and various private sources. The methods overlap and differ considerably in their approach to the question of compensation.

Claims at law

A claim at law typically requires the injured person, as plaintiff, to prove that someone else (the defendant) was at fault in causing his injury. The onus of proof is usually on the plaintiff to show that the defendant's conduct had fallen below the standard required by statute or regulation or by the common law test of reasonable foresight and care. Only a small proportion of claims at law for damages for personal injury come to trial. The remainder are either withdrawn or settled by negotiation at some earlier stage. Statistics of the damages awarded in personal injury trial judgements have, since the beginning of 1974, been collected, for England and Wales, by the Lord Chancellor's Office and, for Scotland, by the Scottish Office. No routine statistics are available on the number or level of negotiated settlements, although surveys have been made, addressed either to injured people (Harris and Harz[1], OPCS, Abel-Smith[1] and Zander[2]) or to solicitors acting on their behalf (Ison[3]).

The distinguishing feature of this system is that it provides for the individual assessment of the circumstances of the injury and of the amount of compensation. This amount is determined by the particular losses suffered by the victim. The purpose of damages is to restore (as far as monetary payment can do so) a victim who is found to be blameless to the position he was in before his injury. Damages can be awarded both for pecuniary loss (usually past or prospective loss of earnings) and, on a conventional basis, for non-pecuniary loss (for example pain and suffering, loss of the amenities of life). If the claim is settled before trial (which, as stated, is usually the case) the compensation agreed will reflect the sum a court is likely to award, though the claimant may agree to accept a negotiated sum to secure an early payment without recourse to proceedings. Actions are directed against individual defendants, who are themselves liable to pay whatever sum of damages the court awards. In practice, insurance against liability for causing personal injury to others is widespread, so that insurers are generally involved on one or both sides of a claim, and pay any damages and costs awarded.

Where injury results from a criminal act and the offender is brought to justice, the court may award compensation to the victim at the time of trying the offence. Victims may also apply to the Criminal Injuries Compensation Board, which applies similar criteria in assessing compensation as do the civil courts.

Social security

The main social security benefits payable to injured people are industrial injuries benefit (for employees injured at work) and sickness and invalidity benefit. The distinction which is made between work and other injuries is important: the range of benefit for work injuries is wider and the rates of benefit are higher. Benefit is payable if more than three days' incapacity for work results from the injury. In addition, the industrial injuries scheme provides for payments in cases where disablement results from an injury at work. Those who are injured and are not covered by one of these schemes may, of course, claim supplementary benefits or other means-tested benefits (family income supplement, rent and rate rebates) if their income falls within the qualifying range. This may seem to be getting some way from the idea of compensation. A feature of social security schemes is that no proof concerning the circumstances of the accident is required, except in the case of a claim for industrial injury benefit that the injury occurred in the course of employment. Apart from the earnings relation of some benefits, no individual assessment of the loss is made in deciding the level of benefit (except for certain aspects of the loss, in the case of disablement benefit and special hardship allowance).

Other sources

Other sources of benefits which an injured person may secure for himself or his dependants arise through voluntary insurance (personal accident, permanent health, life assurance, friendly societies) his job (employers' sick pay, occupational pension scheme provisions for ill health retirement or death in service) his trade union or through a charity. The list could be extended by adding benefits in kind such as the National Health Service and local authority personal social services.

Which source?

The source or sources from which an injured person can seek compensation will depend upon the circumstances of the accident and his or her personal situation. Someone injured at work and unable to work for a period will claim industrial injury benefit and may also be able to make a successful claim at law against his employer. Someone injured in a road accident (except in the course of employment) will mainly rely on a claim at law, although he will be able to claim sickness benefit if he is employed or self-employed with an adequate contribution record. A non-employed housewife injured on the roads would, of course, have no claim except at law. For someone injured at home, the chances of obtaining damages at law are remote, unless the injury can be shown to have been caused by the fault of another, for example in providing a defective product or service. Again, sickness benefit will be available for those covered by the scheme who are absent from work.

Total payments

The total payments in 1972 to victims of injury, which were made as a direct result of the injury has been estimated by the CSO at roughly four hundred and twenty million pounds. Of this about two hundred million pounds came from the social security system, about one hundred and twenty five million pounds from damages awarded by a court, or paid in settlement of claims at law, and the remainder from other sources. Thus overall, the ratio of social security payments to damages is eight to five. However for work injuries the ratio is roughly five to two while for road injuries it is about one to two.

GSS Work for the Royal Commission

Apart from answering the requests of the Royal Commission for relevant routine statistics, the Government Statistical Service and associated bodies have so far been involved in five areas of activity concerned with the Royal Commission's field of interest.

Lord Chancellor's Office and Scottish Office

For a limited period, the systems of Civil Judicial Statistics have been extended to collect additional information about each case involving personal injury disposed of by the courts. The data include the result, the size of award and the periods between the injury, issue of writ, date of setting down for trial and the trial itself.

Department of Health and Social Security

The detailed statistics of injury benefit and sickness and invalidity benefit contain a great deal of information relevant to the assessment of compensation systems. A further piece of analysis which is proposed is an investigation of the earnings in subsequent years of a sample of those who made a claim for industrial injury benefit or industrial disablement benefit in 1969-70; the aim is to estimate the effect of the severity of an injury, measured by the length of incapacity for work or assessed percentage disability, upon earnings up to four years later. This analysis will require data from the DHSS standing samples of industrial injury benefit and disablement benefit claimants and from the earnings records used to calculate earnings related supplement. Because of the confidential nature of the data, no individually identifiable cases will be cited in any analysis prepared for the Royal Commission.

Office of Population Censuses and Surveys personal injury survey

A sample survey of approximately forty thousand households in Great Britain was carried out early in 1974 in order to locate individuals who had been injured during 1973. Further interviews were conducted with the accident victims (or in a few cases with proxies) later in the year. They were asked about the circumstances of their accidents, the severity of their injuries (as measured by the broad type of treatment required and by the duration of incapacity for work and other activities), any resulting financial loss, and the results of any claims for compensation from any of the sources described above. Some basic incidence figures have been produced from the first stage. The detailed information from the recall interviews is at present being analysed.

The main contribution of the survey will be to provide incidence rates for various types of accident (road, work, etc.) among different groups of the population and estimates of the duration of incapacity resulting from different types of accident and of the frequency of permanent disablement, in so far as this could be judged relatively soon after the accident. In addition, an attempt will be made to estimate the financial effects of injury, for the individual and his family, and the extent to which losses are compensated under present arrangements. The accuracy of these estimates will be limited by their dependence upon recall of income loss, expenses, receipt of state benefits and other forms of compensation, tax rebates, etc. over a period which could be as long as two years and upon guesses about any future financial consequences. On the other hand, the survey should provide reasonably accurate information about the broad scale of the loss among people in different income groups and about the types of compensation recovered by them.

Government Actuary's Department

The Government Actuary's Department has a long-standing involvement with the National Insurance and industrial injuries schemes. It is ready to offer advice to the Royal Commission, as required, on estimates of future costs and financial matters where social security benefits are concerned.

Central Statistical Office

The CSO's function has been to assist the Royal Commission by providing, as far as practicable, such estimates of cost as it may require. An estimate of the amount of compensation paid during 1972 under the existing arrangements and of the cost of administering them has already been made. The sources and methods used are described below. The Royal Commission may be expected to require estimates of the effect on costs of possible variations in the elements of the existing arrangements. Work is proceeding on the analysis of various features of compensation systems and on the assembly of a data-base to prepare for such requests. Table 1, for example, shows the main features which characterise compensation schemes for non-fatal injuries.

An important consideration in estimating costs must be the circumstances of the injury. At present, as has been indicated, different parts of the system tend to compensate different types of injury. As a minimum, three categories of injury (work, road, and the remainder) need to be dealt with separately and further subdivisions (for example work illnesses as distinct from work accidents and the possible overlaps between categories) may also have to be considered. Fatal injuries also present different problems from non-fatal ones and these therefore need to be distinguished within each category.

Main features of compensation schemes for non-fatal accidents

Table 1

Population covered

Type of injury covered

Indexing of benefits: whether the benefits are linked to an index of, for example, prices or earnings

Frequency of payments: lump-sums or pensions

Thresholds: minimum payment under scheme or minimum period of incapacity to qualify for compensation

Maxima
- (a) maximum weekly rate fixed in terms of (for example)
  - i. proportion of individual's previous earnings
  - ii. average industrial earnings
- (b) maximum total payment in respect of any one injury
- (c) maximum period of benefit

Rate of payment
for example:
- (a) flat rate, with allowance for dependants
  or
- (b) percentage of pre-accident earnings

Changes in rate of payment to an individual otherwise than for general changes in prices or earnings
- (a) with age (for example as compensation for lost promotion)
- (b) with length of disablement
- (c) with change in medical diagnosis
- (d) with changes in other incomes (for example on return to work)

Non-economic losses
- (a) pain and suffering
- (b) loss of faculty
  At what tariff?

Other expenses

Sources of income taken into account

Taxation of payments

Reduction of payments through contributory negligence

Possible sources of benefits for the injured

Table 2

Type of benefits	Included	Excluded
National Insurance benefits etc.	Injury benefit Industrial disablement benefit (including supplements) Industrial death benefit Workmen's compensation supplementation scheme Pneumoconiosis, byssinosis and miscellaneous diseases benefit scheme Sickness benefit Invalidity benefit Widow's benefit Attendance allowance	Unemployment benefit Child's special allowance Guardian's allowance Retirement pension War pension Death grant
Income-related state benefits	Supplementary benefit	Family income supplement Free prescription charges Free school meals (local authority) Rent rebates (local authority) Rate rebates (local authority)
Other state administered cash benefits	Criminal injuries compensation	
Benefits in kind		National health service All other benefits in kind
Via legal system	Claims at law against an insured person met by the insurer Claims against self-insurers of substance Legal aid and advice scheme* Compensation awarded by criminal courts	Claims against the uninsured of little substance
Personal insurance	Personal accident Permanent health insurance	Life assurance Private medical insurance
Private sources	Employers' sick pay schemes Charities Trades unions Friendly societies Occupational pension-fund payments for early retirement	

(*) This source provides no direct compensation, but a means of obtaining a possible benefit. It forms part of the administrative cost of the system.

Existing system

The estimated cost of the existing system[4] has been built up from an examination of the amounts paid in compensation for injury and absorbed in administration during 1972 for each of the sources listed in the second column of Table 2. The list of exclusions is given in the third column. Broadly, the excluded sources are either benefits in kind or benefits different, or wider in scope, from the compensation of injury (for example rent and rate rebates and life assurance).

Obtaining the amounts of compensation paid during the period from National Insurance benefits and from the Criminal Injuries Compensation Board has been a relatively straightforward matter of looking into accounts and apportioning to injury victims where a scheme provides benefits on a wider basis. For supplementary benefit, only a very rough-and-ready estimate was possible, since the underlying reason for a claim of supplementary benefit is not recorded, even if it were ever known. Certain data on payments by insurers in settlement of claims at law have been supplied by the British Insurance Association and work has proceeded in consultation with them, although the BIA has expressed reservations about the form of the analysis.

Lloyds, whose syndicates are not BIA members, were able to participate in only part of the exercise, because of their different accounting system. The Royal Commission has conducted its own survey of 'self-insurers' – those organisations which are exempt from compulsory insurance and choose to bear their own risk of liability for personal injuries. They consist mainly of some nationalised industries, government departments, some local authorities, and a few organisations in the private sector. Information on amounts of compensation awarded by criminal courts is not yet complete. Estimates for personal accident and permanent health insurance were provided by the BIA and Life Offices' Association. Two estimates of employers' sick pay were made, one based upon a survey of the income of the medium and long-term sick commissioned by DHSS from OPCS and the other upon the Department of Employment's Survey of Labour Costs, making assumptions for the industries not covered by the survey, and allowing for changes in earnings between 1968 and 1972. The two estimates were reasonably close. Estimates of payments by trades unions, friendly societies, and charities came from the DHSS survey. Finally an extremely tentative estimate of the amount of compensation paid to victims of injury from occupational pension schemes has been developed from the Government Actuary's Department's fourth survey of occupational pension schemes together with assumptions about the number of claims arising during 1972.

The result of the exercise was to give an estimate, which was referred to on page 31.2 above, of the total amount of money paid to injured people during 1972 from the sources considered and an estimate of each source's administrative cost. In arriving at the total compensation payment, it was necessary to combine lump sum payments arising from claims at law with periodic benefit payments from the social security system. The payments arising from claims at law are partly the result of capitalising future losses. For present purposes they can be combined with the periodic payments from other parts of the system on the assumption that, under existing arrangements, there will not be a large change at some time in the future in the relative sizes of payments from the two groups of sources.

Future work

It has already been mentioned that the CSO has begun to prepare a data-base from which could be made such estimates as the Royal Commission may request of the cost of certain variations in the arrangements for compensation. The range of such variations which it will be possible to consider will, of course, be limited by the availability of suitable data. It is hoped to be able to cover, at least approximately, a majority of the features shown in Table 1.

In costing such variations, some fundamental assumptions will be necessary. These will to some extent be arbitrary, in respect for example of changes (if any) which might occur in the incidence of injuries or in the propensity to claim compensation.

One approach to the problem of estimating changes in compensation cost implied by a revised set of arrangements would be to base the calculations solely on the OPCS sample of injury victims described earlier. Each injured person's entitlement under the revised rules would be estimated from the information obtained about the circumstances of the accident, his personal situation, the duration of incapacity and so on. This sum could be compared with the amount which the injured person reported having actually obtained and the difference, grossed-up from the sample, would give an estimate of the net cost of the alternative scheme being considered. However, the possible limitations on the accuracy of the financial data, mentioned in the description of the survey, make it worthwhile supplementing this form of analysis by adopting a second approach. This second approach considers the existing compensation arrangements separately from those of possible revised arrangements and provides the estimates of existing costs in a form that can act as a benchmark against which the costs of alterations can be measured. Estimation of costs then splits into three parts:

- the existing system
- revised arrangements for fatal accidents
- revised arrangements for non-fatal accidents.

The costing of the existing system has already been described.

Fatal accidents

It is proposed to base estimates of the cost of changes in the arrangements for compensation for fatal accidents on data obtained from the Registrars-General for England and Wales and for Scotland. These are anonymous individual records, in a suitable form for computer analysis, of accidental deaths which occurred between 1970 and 1972. The detailed information recorded about the deceased and circumstances of death varies according to the country in which the death took place. The general approach will be to calculate for each death, the earnings lost from the age of death to retirement, based on the deceased's occupation and data from the New Earnings survey for a similar occupation group. It should be possible to introduce a certain amount of flexibility into the analysis, so that the effect of various assumptions (such as the proportion of lost earnings to be paid, the groups of dependants eligible and so on) can be considered.

Non-fatal accidents

The main items of information needed to consider the costs of compensation for non-fatal accidents are incidence rates and durations of incapacity of the different kinds of injury, the distributions of previous earnings and tax position of relevant sub-groups of the population, medical information on the incidence of permanent disability and data on the effect of injury on subsequent earnings. The main sources of this information will be the OPCS Personal injury survey, statistics of existing benefits, the New Earnings Survey, and the Family Expenditure Survey. Substantial gaps are likely to remain which it will only be possible to cover by making suitable assumptions.

References

(1) 'Report of a pilot survey of the financial consequences of personal injuries suffered in road accidents in the City of Oxford during 1965' by D. R. Harris and S. J. Harz (Unpublished Oxford 1968).

(2) *Legal problems and the citizen* by B. Abel-Smith and M. Zander (Heinman Educational) (Price £3·50) London 1973.

(3) *The forensic lottery: a critique on tort liability as a system of personal injury compensation* by T. G. Ison (Staples Press) (out of print) London 1968.

(4) The approach described in this paragraph is similar to that in 'Compensation for personal injury' by D. Lees and N. Doherty (*Lloyds Bank Review* April 1973).

The development of a central register of businesses

D. R. Lewis, *Statistician, Business Statistics Office*

Historical background

The attractions of a central register of businesses which would be available for use by all government departments in conducting their statistical inquiries have been acknowledged for many years. Early references to the benefits of a central register were included in the recommendations of the Fourth Report from the Estimates Committee 1966-67[1]. The subsequent discussion that led to a new system of industrial statistics also emphasised the importance of improving statistical registers[2]. In an answer to a Parliamentary Question on 16 December 1968 about the setting up of the Business Statistics Office (BSO) the Prime Minister stated that the new office would be responsible for creating and maintaining a central register of businesses and referred to the greater comparability between different statistical series and the reduction in duplication in the collection of information that would result[3]. The publication of the Bolton Report on Small Firms in 1971 brought further support for the central register project and a recommendation that 'resources adequate to ensure rapid progress should be devoted to it'[4]. An assessment of the requirements of a central register scheme and its likely benefits was given in an earlier *Statistical News* article by L. S. Berman[5]. The present article discusses the role of the central register of businesses which the BSO is setting up and describes how the register is expected to develop in the future.

The role of a central register

The aim of the central register project is to provide a comprehensive and up-to-date list of businesses, classified by industry, size and location, for use in statistical enquiries designed to provide aggregate information about firms. The current interest in the creation of such a register reflects a number of economic and institutional factors. For example, the development of economic models of the national economy assumes congruence between the various aggregates involved, and a central register for the different inquiries which provide them is a considerable step in this direction. Secondly, it is only in recent years that the necessary computer technology has been developed to provide the processing power, storage capacity and access speeds that a central register demands. Thirdly, there has been a growth in general interest in the activities of large companies, multi-national or otherwise, and changes in company law relating to disclosure of information have resulted in a wider dissemination of knowledge on the structure of business. The provisions of the 1957 Companies Act concerning disclosure of names of subsidiaries and ultimate holding company represent a major step in this direction. At the same time government administrative records outside the statistical field (for example those associated with taxation or company registration) have themselves benefited from advances in computer technology and have become available both as sources of statistics in their own right and as possible sources for a central register scheme.

Against this background the register will provide a comprehensive and up-to-date list of records covering enterprises, companies, establishments, local units and so on to be used as reporting units (to which forms are mailed) or as statistical units (in respect of which data are collected). These will be classified by industry, size and locality. Among the advantages of such a scheme would be a substantial improvement in the congruence of the resulting statistics, a reduction in the form filling burden made possible by the increased use of sampling methods, greater scope for internal data checks on the compatibility of information collected in different inquiries, the control of double counting or omissions in inquiries, and the ability to compile enterprise analyses, for example for the study of concentration or foreign ownership.

Against these substantial advantages, two major difficulties deserve mention. The first concerns the sheer size of the business sector – the fact that a full central register scheme will cover over a million non-farm businesses. Even with recent advances in computer technology, and the possible use of aids such as visual display units and microfilm output, the problems of maintaining records of a variety of different units, some legal, some institutional, some statistical, some physical and so on, on this scale are formidable and it will take many years before the central register scheme is fully implemented. Secondly, the introduction of a central register for a wide range of statistical inquiries must imply some loss of flexibility compared with a situation in which each inquiry statistician is left free to devise his own mailing list and to negotiate individual reporting structures with each large responder. Also, the imposition of common reporting structures may produce some loss of timeliness; if for example sales and purchases figures for a unit are to be the subject of inquiries conducted from a central register, it may well be that the unit will report at a higher level – the head office perhaps – and the speed of reporting for both inquiries may be slower.

Despite these problems the balance of advantage is substantially in favour of constructing the central register. The remainder of this article first gives a description of the Value Added Tax (VAT) information to be used as a source for the BSO's central register of businesses, then summarises current work in hand, and finally notes some plans for development in the immediate future. At present activity is concentrating on register improvements for the distribution and services trades.

The VAT information

Following an assessment by the Government Statistical Service of the various possible sources for central register work, attention centred on the merits of using the register of firms which was to be compiled for the introduction of VAT in April 1973. Section 55 of the 1973 Finance Act gave powers to Her Majesty's Customs and Excise to transfer to the BSO, for the purpose of compiling a central register of businesses or for any statistical survey, the following information about each unit registered for VAT and for member companies of group registrations: VAT registration number, name, trading style, addresses, legal status, trade classification and turnover.

The first VAT information, covering all 1·2 million firms then registered for VAT, was passed to the BSO in early 1974. During the following months a wide range of exploratory exercises were carried out in order to assess the coverage and reliability of the new data. Four factors concerning possible current coverage deficiencies had been the cause for some concern: the effect of group and divisional registrations, the five thousand pounds turnover cut-off, the exempt trades and the treatment of zero-rated goods and services. These are considered briefly in the following paragraph.

With the exception of around sixty thousand businesses (almost entirely companies) covered by group or divisional registrations, the VAT tax units each cover a single legal unit – one company, one partnership, one sole proprietor and so on. For all businesses covered by group registrations (where two or more related concerns register as a single tax unit) or divisional registrations (where operating divisions of a single company are registered as separate tax units) special arrangements have been devised to ensure that the central register will hold a separate record for each legal unit. The effect of the five thousand pounds texable turnover threshold below which firms are not required to register has been investigated primarily in terms of the retail trade; preliminary fieldwork suggests that whilst there could be twenty thousand or more unregistered small shops, these together account for a minimal proportion of total retail turnover. The cut-off could result in more serious deficiencies in certain service trades where net income represents a high proportion of total turnover – hairdressing and shoe repair shops for example. The effect, on central register plans, of the eight VAT exempt trades is limited by the fact that four of the sectors concerned – insurance, postal services, education and health – are covered by other reporting arrangements. This is not the case however for other exempt trades: finance, dealing in land, betting and burial services, and alternative sources are being examined for these sectors. Many businesses which appear to be classifiable to an exempt trade will have registered as a result of taxable ancillary activity, a bank carrying out executor and trustee work for example. At first sight the existence of seventeen zero-rated goods and services, including food, books, fuel, construction and transport, appears a serious loss of register information. Two features in the VAT regulations, however, make this unlikely. Firstly, a business may apply not to register only if its output consists entirely of zero-rated items. Thus a bookseller must register if he sells taxable items such as greetings cards, a food retailer if he sells items such as sweets, alcohol or pet foods. Secondly, any business that does not register will lose the right to repayment of VAT paid on inputs. For this reason it is likely that only smaller firms that are anxious to avoid the cost of VAT bookkeeping will consider not registering.

Current developments

Since the Government gave formal approval for the construction of a VAT-based central register in the middle of 1974, development work has been concentrated in four main areas: the creation of a register for a large scale inquiry addressed to wholesalers, the construction of a register for simple annual inquiries covering the transport and entertainment trades, the development of a retail register, and the collection of VAT numbers for the BSO production register.

The first large scale use of a VAT-based register for a statistical inquiry has been for the 1974 wholesale inquiry. The original plans for this inquiry were postponed for a year in order that it could be changed from a full census to a sample inquiry taken off the VAT-based register. In consequence some fifty thousand businesses were relieved of having to complete returns. Inquiry forms mailed early this year will provide information relating to 1974, and the experience gained both in constructing the register and in conducting the inquiry is bringing to light a wide range of issues that relate to the general use of VAT information as a register source. For example, exercises were carried out prior to mailing in an attempt to assess the coverage of the VAT register compared with previous BSO registers, the effect of moving to legal units in place of the more loosely defined reporting units used in previous wholesale inquiries, the reliability of the VAT trade classification (based upon self-classification from a list of trades included in the VAT registration documents completed by each firm), the best way in which VAT turnover figures should be used in sample design, and so on. A distinction is being drawn between the reporting unit and the statistical unit in that most of the information which a multi-activity concern selected for the wholesale inquiry will be asked to provide will relate to that part of the business that is engaged in wholesaling although it will be asked for summary information about its other activities. An analysis of these returns will provide essential background information for decisions on the future role of legal units in economic inquiries. Response from firms so far indicates that there is no reaction from the business community against the use of registers based on a tax source. Whilst it is too early to draw firm conclusions (the preparation of provisional results will start towards the end of 1975), the earlier hopes of a substantial reduction in the form-filling burden achieved by greater use of sampling methods and without unacceptable loss of reliability in the statistics are being confirmed, and no unexpected difficulties have arisen. Similar findings have been reported for a VAT-based inquiry for 1974 into transport and entertainment.

In the retail field a VAT-based register is being prepared for a new system of distribution statistics that will involve replacing the former unwieldy quinquennial Censuses of Distribution by a series of simpler annual sample retail inquiries. Here the VAT information is being used to create a comprehensive and fully updated retail register of a type that could never have been contemplated previously. Recent Censuses of Distribution, for example, have been undertaken on the basis of listings of shops prepared by Census of Population enumerators. Retail records already held in the BSO as a result of the 1971 Census of Distribution are being used in two ways: to provide additional data such as grid references, floor space and branch listings that will be used to supplement the new VAT information, and to trace those VAT records that are classified to non-retail trades but have ancillary retail activity. The next step, having identified all VAT units with retail activity, will be the preparation of a shop register that will involve a regular collection of branch listings from businesses with two or more shops. The BSO is examining ways in which an ongoing shop register might be maintained, in order to hold turnover, trade classification and employment for each shop together with floorspace information for larger outlets.

In the production sector an achievement of recent years has been the elimination of substantial discrepancies that existed in the past between estimates of manufacturing employment produced by the Department of Employment and those derived from Censuses of Production. Some of the discrepancy of around one million workers that existed in the late 1960's reflected differences in definition (employment at a date against annual average employment for instance). The major reason, however, was that information was obtained under two quite different reporting systems. Up to 1971 the Department of Employment's figures were derived from counts of all National Insurance cards for employees. These would include cards for some employees who worked for part of the year only. The Census of Production figures were obtained from postal inquiries of employers. From 1971 onwards the Department of Employment's figures have also been obtained from a direct inquiry of employers – the Census of Employment – and this has made it easier to compare the respective registers. Some problems have had to be overcome. For example, even when the address used in an inquiry was the same the coverage might be different in terms for example of the treatments of ancillary non-manufacturing activities: a transport department would be included in one return but excluded from the other. In addition, for those records that were common to the two registers there were discrepancies in industrial classification. Considerable effort has been devoted in recent years to eliminate such differences, and the two statistics of manufacturing employment are now much closer together. A second advance concerning the BSO production register has been the publication of analyses of manufacturing units held on the register by employment size bands, industrial classification and regions[(6)].

Recent work on the production sector has been aimed primarily at an assessment of the similarities and differences that exist between VAT reporting structures and the establishment records used on the BSO production register. As a start to this work VAT numbers have been collected in BSO production inquiries and are being held on the production register for analysis. It is planned that these numbers should be presented for confirmation or amendment on annual Census of Production returns for 1975 and following years. In this way it will be possible to examine in detail the relationship that exists between legal units and production register establishments. Interest in this topic has arisen in part as a result of the key role played by 'l'entreprise' (or smallest legal unit) in the system of production inquiries advocated by the Statistical Office of the European Communities(7).

Future work

In the following paragraphs an attempt is made to outline register development activities that are planned for the coming year or two. For the longer term much will depend upon the outcome of the current exercises that have been mentioned above.

One adverse feature of the VAT source – the absence of any information regarding the different sites at which activity takes place within a legal unit – could be overcome by the establishment of a satisfactory link between the VAT register and the local units (known as census units) for which information is obtained by the Department of Employment in the annual Census of Employment. A possible means of reconciling records from the two sources would be the collection of VAT numbers in the Census of Employment; as part of the 1975 census the Department of Employment is carrying out pilot exercises to assess the problems involved in such a scheme. In addition, in order to examine further the relationship that exists between VAT units in the construction sector and records held on the register of construction firms maintained by the Department of the Environment, VAT numbers will be collected in the 1975 Private Contractors' Construction Census.

Further work is also planned in the development of a regular VAT updating scheme for the central register, and mechanics for a possible monthly update are being examined. Consideration is being given to ways in which Company Registration reference numbers might be held on the register in order that efficient links can be established with data held at Companies House. Revised trade classifications (that is VAT trade codes amended as the result of BSO inquiries) will be passed to Her Majesty's Customs and Excise in order that VAT statistics should be comparable with statistical series issued by the BSO. Work is in hand to hold enterprise codes within the central register system so that it will be possible to identify all companies under common ownership and distinguish country of ownership for those that are foreign owned. A further major task will be the reclassification of register units to a revised Standard Industrial Classification when this is introduced. Another problem concerns the release of classified lists of names and addresses of firms held on statistical registers. As the confidentiality provisions of the 1947 Statistics of Trade Act prohibit any release of information relating to a single concern, lists of firms' names and addresses can only be published by collecting a 'permission to disclose' in BSO inquiries. The coverage of such lists reflects in part the number of firms refusing to give this authority (in the 1968 Census of Production around 80 per cent of those approached gave their consent whilst in the 1971 Census of Distribution a rather lower proportion did so). The wider use of sampling methods envisaged for inquiries run off VAT based registers will obviously raise further coverage problems. Lastly, consideration is being given to the possible introduction of VAT based registers for statistical inquiries directed to other service trades.

Conclusions

It will be some time before a comprehensive and fully co-ordinated central register is operational but the advances made in recent years have in general been encouraging and have confirmed earlier hopes that the VAT information provides a satisfactory framework for the construction of a central register and that this project can offer substantial benefits both for the Government Statistical Service and for responders to statistical inquiries.

References

1. *Fourth Report from the Estimates Committee, Session 1966-67 on the Government Statistical Services* (House of Commons paper 246) (HMSO 1966) page xii.
2. 'The Development of Industrial Statistics', J. Stafford, *Statistical News No 1,* (HMSO 1968) (Price 30p net).
3. *Hansard* 16 December 1968 Col 301.
4. *Small Firms: Report of the Committee of Inquiry on Small Firms.* (Chairman J. E. Bolton) (Cmnd 4811), (HMSO 1971) page 264 (Price £2·55 net).
5. 'The Central Register of Businesses', L. S. Berman. *Statistical News No 4* HMSO 1969.
6. 'Analysis of United Kingdom manufacturing (local) units by employment size', Business Monitor PA 1003, (HMSO 1975). (Price 82p).
7. European Economic Community Council Directive 72/221/EEC of 6 June 1972 'Co-ordinated Annual Surveys into Industrial Activity'.

Developments in the statistics of the distributive trades

Department of Industry

A few years ago a substantial re-organisation took place which improved the range and structure of industrial statistics. Some time afterwards work began on an inter-departmental review of the needs for statistics of the distributive trades, defined as retailing, wholesaling and motor trades, and the best way to meet those needs in the future. In September 1973, after the first stage of this review, outline proposals for a future system of statistics were circulated to a wide variety of interested organisations and individuals outside government, representing both users and contributors of statistics (*Statistical News* 23.19).

Discussions were held with a number of outside organisations, and written comments received from some others. The views expressed were of general support for the proposals, and provided an outline for a future system of statistics for the distributive trades. Subsequently, more detailed plans were considered by the Census of Distribution Advisory Committee. This article describes the developments which have occurred in the future collection of statistics for the distributive trades.

Present arrangements

The present pattern of statistical inquiries into the distributive trades has existed for some twenty years and is based on the 1954 recommendations of the Verdon Smith Committee. The system of statistics depends upon taking a full census for retailing every ten years, with intervening sample censuses every five years, and periodic large-scale benchmark inquiries for wholesaling and motor trades (the term 'inquiries' will be used in this article, to cover both censuses and other periodic inquiries). Monthly and quarterly sample inquiries are maintained to provide short-term indicators for the main aggregate series, for example turnover, capital expenditure and stocks. Annual inquiries provide firmer estimates for capital expenditure and stocks and for retailing have provided some broad commodity information for the sales of the large retailers. These inquiries are dependent on the infrequent large scale inquiries for both the selection of the sample and grossing up the results. In the absence of an up-to-date register the system has necessitated creating at great cost a new register for each large scale inquiry. Furthermore, the absence of an up-to-date register has meant the information derived from the annual and short period inquiries is probably less reliable than is desirable.

The large-scale inquiries have provided the only opportunity to collect reliable information for many aspects of retailing and the forms have been very complex and burdensome to contributors. The inquiries have been expensive to run and inevitably their complexity has led to delays in producing results. Added to the relative infrequent nature of these inquiries this has meant that the latest information available has generally been out-of-date. Moreover, a satisfactory response was not achieved from 13 per cent of the estimated total number of businesses for the 1961 Census of Distribution: for 1971 the corresponding figure was 22 per cent.

The proposals

The basis of the new system is to replace complex, infrequent, large scale inquiries by a sequence of annual, sample inquiries. The new scheme has been made possible by the availability to the Business Statistics Office (BSO) for statistical purposes, of certain information about Value Added Tax (VAT) (permitted under the Finance Act, 1973) which will provide the basis for a continually updated register of businesses (See page 31.7). The new system has been designed to meet as far as possible a wide range of needs, with a minimum burden on businesses and an economical use of official resources. In particular the smallest businesses will benefit from the easing in the burden of form-filling which will be achieved by the use of sampling. A further feature has been to design a system which will be capable of adjustment to meet any changes of priorities in future.

Although the early consultations covered retailing, wholesaling, and motor trades, almost all of the detailed planning for introducing the new system has been undertaken for retailing. Plans for wholesaling and motor trades will be considered in due course, and the approach being adopted for retailing will be carried over where appropriate.

There are a number of reasons for placing the emphasis on retailing. First, the various disadvantages of the present system – burden on contributors, size, complexity and expense – affect retailing to a much greater degree than they do wholesaling and motor trades. Secondly, under the old system there would most probably have been a sample census for 1976. Finally, a large scale inquiry into wholesaling is currently being carried out in respect of 1974.

The first inquiry, therefore, of the new system will be held for retailing in 1977 in respect of 1976, and in view of the time needed for planning the broad principles agreed for 1976 will apply at least to those in respect of 1977 and 1978. One feature of the new system is to collect information on some topics on a rotating basis, thus endeavouring to spread the load. The aim in the new system will be to cover topics included in the previous retailing inquiries at least as frequently as before.

The need for information in retailing

For retail distribution, there is a continuing need for monthly information on retail sales and stocks and quarterly information on capital expenditure in order to monitor the latest developments in the economy, and to provide information for the quarterly national accounts. In addition, the detailed monthly retail sales information has wide circulation outside government. There is also a need for regular annual data on sales, stocks and capital expenditure to provide more complete and more detailed estimates than can be obtained from the relatively small monthly and quarterly sample inquiries. Annual information is also required on a commodity analysis of sales, and on purchases for resale (to provide estimates of gross margins). Information is also needed less frequently on employment, wages and salaries, transport and other costs, trading methods, selling space and credit, credit sales and debt; commodity and selling space data are of particular value to users outside government. A third kind of identified need – for regional information – is being formulated against a background of developing regional policies. Here, too, there is much outside interest. Finally planners and market researchers have expressed a need for the continuing availability of analyses of individual shopping centres and other specifiable small areas.

1976 Retailing Inquiry

In the 1976 retailing inquiry, information will be collected on total turnover, with separate estimates for England, Scotland and Wales, and also analysed by commodity, capital expenditure, stocks, purchases for resale, employment, VAT on sales and on purchases, credit sales, credit charges and debt outstanding. The sample has been scientifically designed so that less than thirty thousand businesses out of a total of some three hundred thousand within the scope of the inquiry will be asked to fill in forms. One fifth of those approached will be asked to complete the full questionnaire (covering the topics listed above), while the smallest businesses – with a turnover of less than fifty thousand pounds – will be asked to complete a considerably simplified form.

For the 1977 and 1978 inquiries the credit questions will be dropped, and existing proposals envisage the collection, in one or other of these years, of information on transport and other costs, wages and salaries, selling space, method of trading and certain regional data. The frequency with which the rotating topics are covered will be reviewed in the light of experience.

Mention was made earlier of the small area analyses, which had been provided by the full censuses of distribution, for local authority planners and market researchers. To meet these apparently growing needs, consideration is being given to the construction of a retail shop register which will hold for each shop certain basic data such as location, business activity, turnover, employment and, in some cases, selling space. Such a register, covering up to half a million shops, will take substantial time and resources to develop fully, but the information which will eventually be available should be a considerable improvement on what has existed hitherto.

Conclusion

The developments in retailing should provide a more flexible system with more reliable and up-to-date information at a lower cost than that of the present system. Smaller businesses should benefit from the easing in the form filling burden by the use of sampling. In future, consideration will be given, in the light of the results of the large scale wholesaling inquiry for 1974 and known needs, to the most appropriate system for wholesaling. Plans will also be considered for the motor trades.

The work of the Central Office of Information Research Unit

N. H. Phillips, *Head of Research, Central Office of Information*

Background – the Central Office of Information

The Central Office of Information (COI) is a common service department which supplies publicity material, services and advice to other Government departments for use at home and overseas. Information campaigns at home are required by Departments for many purposes, among them: to publicise and explain the effect of new laws or administrative measures; to make the public aware of their rights and duties under social legislation and to encourage the proper use of the services available; to assist recruitment to the armed forces or other public services; and to improve health or safety. Overseas, the COI equips our diplomatic missions with material designed to present Britain's point of view and to encourage confidence in the country as a good trading partner.

The responsible department briefs the COI which then either produces appropriate material internally or supervises its production by commercial organisations.[1] Many of the recent substantial advertising campaigns and their associated slogans will be well known to readers, for instance 'Clunk-Click' (Seat Belts), 'Join the Professionals' (Regular Army) and 'Save It' (Energy Conservation).

The overall expenditure figures may help to put the size of the COI operation in perspective. The total Estimates on the COI Vote for 1975/76 (excluding HMSO) amount to twenty eight million pounds of which eight million pounds is for Overseas publicity and twenty million pounds Home publicity; some two-thirds of the latter figure is spent on advertising campaigns.

Research at the COI

Governments have long recognised the importance of 'social information' in formulating policy decisions and the use of sample survey techniques has increased over the years.[2] The Social Survey constituted a section of the Home Intelligence Division of the wartime Ministry of Information. It conducted sampling enquiries into many aspects of wartime conditions and public reactions to them, not only for the Ministry but for other Government departments. The Social Survey continued as a division of the COI until 1967, when, following a recommendation of the Heyworth Committee on Social Research in 1965, it became a separate non-ministerial Department,[3] and later part of the Office of Population Censuses and Surveys.

Most of the work of the Social Survey, however, was serving the requirements of policy divisions in departments rather than those of information directorates. With the growth of COI publicity work, particularly relating to advertising campaigns, the number of research studies that were specifically concerned with publicity grew. At the end of 1969 a special research section was set up within the Advertising Division. In 1973 a new Research Unit was set up and its scope was extended to embrace the work of other divisions at home and overseas – particularly the Publications and Design Services, Films and Television, and Exhibitions Divisions. The Unit has five qualified research officers who plan and control surveys whose fieldwork is carried out by commercial research companies. Some fifty to sixty projects are commissioned each year and in 1975/76 the total expenditure is in excess of a quarter of a million pounds. Almost all of this expenditure is related to the Home Services and it is to these that the rest of the article refers.

What sort of research?

There are three main uses to which sample survey techniques are put in COI work:-

(a) *Target market studies* that are undertaken into the attitudes, experiences and behaviour of the target group to aid publicity planning. For instance surveys of public attitudes towards energy conservation were undertaken as part of the development of the Save It campaign, a major part of which was designed to encourage energy-saving in the home and to promote the means of doing so, especially through the installation of items such as loft insulation and cylinder jackets.[4]

(b) *Creative development work:* When publicity material is in near-finished form (such as mock-ups of leaflets or television commercial scripts and storyboards) small-scale research may be undertaken among individuals or groups to ensure that it is achieving its objectives, for example, that it is understood, that it is free of ambiguities, that the important points are communicated most clearly. A number of leaflets have been exposed to this kind of research and amended as a result.

(c) *Effectiveness evaluations:* For a number of campaigns such as those concerned with recruitment the analysis of coupon response provides a primary measure of effectiveness, but this will often not be sufficient by itself and clearly does not apply to major persuasive campaigns such as road safety, fire prevention or energy saving.

Measurements that make use of *field research* vary, according to the nature of the publicity objective, and include levels of awareness, detailed recall of the advertising, attitude shifts, claimed behaviour and actual (observed) behaviour. In all cases it is essential to have a clear statement of the advertising objective that is to be subjected to measurement. The setting of appropriate advertising objectives and the choice of measurement tools, however, is not always straightforward.[5] In a number of instances evaluative research has been conducted as part of a controlled experiment to enable informed judgements to be made on basic media choice, appropriate media weight or the creative approach[6].

These three main types of COI research work may be illustrated by recent examples of our work.

Examples of COI research work

(a) *Target market study: Project magazine* [7]

An inter-departmental working party now known as PETT (Project Engineers and Technologists for Tomorrow) was set up ten years ago to foster technology in schools and to interest more children in becoming professional engineers. The Central Office of Information provides a number of services in support of this aim, in particular the magazine Project, circulated to all schools with an 'A' level sixth form. A survey was conducted in 1974 which included interviews with fifth, first year sixth and second year sixth form pupils, as well as with the relevant staff, to establish the degree of penetration of the magazine and reactions to it by readers. It was clear from the research that the magazine, though appreciated by many recipients, was in need of a 'face-lift'. Among other things it was generally considered 'too technical' even by second year sixth formers and by those already inclined to engineering as a career. From the Summer Term 1975 a new series was launched with considerably more eye-appeal, a number of less specialist articles, a less advanced technical level and with parts of the magazine specifically aimed at younger pupils. At the same time the distribution arrangements were overhauled. The new magazine has received very favourable reactions from schools and a follow-up postal survey among all recipients is in hand.

(b) *Creative development: Road safety leaflet test* [8]

A number of parents of young children were asked to read through a 'mock-up' of a leaflet due to be distributed later in 1975 on behalf of the Department of the Environment via nursery groups and schools. The leaflet was called a 'Lesson for life' and was intended to be a guide to parents on what to teach their children in the way of road safety and how to do so, for two to four-year olds, five to sixes and seven to nines. The leaflet was left with respondents to study for a few hours and the interviewer called back later in the day. The leaflet communicated the key points very clearly. Where reservations were expressed they stemmed from the parents' doubt about the wisdom of the advice given rather than the style of communication. For instance, the draft leaflet appeared to give the impression at one point that two to four-year olds might unavoidably be out alone on occasions, which seemed to respondents to be inconsistent with advice elsewhere. Before the leaflet was issued as part of a regional test campaign (in Tyne Tees) appropriate changes were made to this and other paragraphs.

(c) *Effectiveness evaluations-observation techniques*

For the major persuasive campaigns such as those urging motorists to wear seat belts, or to keep a safe distance behind the vehicle in front, the COI has increasingly looked for measurements of actual changes in behaviour following an advertising campaign as an essential part of the overall evaluation. While behavioural measures *on their own* do not reveal *why* a campaign has worked in a particular way, measures of awareness, changes in attitude or unvalidated claimed behaviour do not always give a reliable guide of *the extent* to which the campaign has worked. The pioneering studies in this connection have been the seat belt surveys on behalf of the Department of the Environment (DOE).[6] [9] Behavioural measures have recently been used also as part of the evaluation of a test campaign on vehicle separation distances on behalf of the Department of the Environment (by means of filmed observation at a random sample of sites)[9] and on a fire prevention campaign on behalf of the Home Office – to establish where, in the household, matches were being left and whether these were within the easy reach of children.[9] Observational techniques were also used to establish the traffic flow of visitors to the DOE stand at the

Motor Show[8] and 'personal' buyers of HMSO books at the Holborn Bookshop.[10]

The relevance and utility of research at the COI

The extent to which the findings of survey research are translated into subsequent decisions in the policy area has been discussed elsewhere by other authors who have outlined some of the problems.[2] In the case of publicity also the transition from research findings to associated decisions is not a mechanical step and the extent to which findings can be translated into action depends on a number of factors – for example, the setting of the research objectives; the extent to which these objectives are purely evaluative (or essentially backward-looking) and the extent to which they are concerned with the creation of prospective publicity; and the relationship of the findings to other data and external constraints. The results of some types of survey have a more obvious and immediate application than others, for example target market studies and creative development work as against campaign evaluations. Even the latter, however, unless they relate to strictly 'one-off' campaigns usually have implications for future campaign planning and, wherever possible, will have measures built in that are intended to maximise the applicability of the results to future publicity of a similar kind.

Indeed one of the features of COI research work is that because of the highly specific nature of the publicity problems under consideration the results of the research may be applied within a relatively short time, often between one and twelve months. If we consider some of the examples already cited, in the case of Project magazine the new series was launched within a year of the research results, and the Lesson for Life leaflet was amended and distributed within a few months. The studies investigating the levels of seat belt wearing have followed differential patterns of advertising weight and timing and have been used to develop the media strategy of subsequent campaigns.[6]

All survey research needs to be subject to a number of intellectual disciplines. We believe that applied research, particularly in the publicity area also needs to be subject to the critical constraint of time and to the discipline of applicability.

References:

(1) *Central Office of Information, Functions and Organisation* COI 1974.

(2) For example, Louis Moss 'Application of Survey Research Techniques to Social Problems', paper given to the Market Research Society 1971; Muriel Nissel 'Changing Values and Social Trends' paper given at joint conference of Market Research Society and American Marketing Association 1974; both referred to by Frank Teer in 'The Contribution of Survey Research to Government Policy Making' European Society for Opinion and Marketing Research (ESOMAR) 1975.

(3) *The Central Office of Information* by Sir Fife Clark, CBE, George Allen & Unwin Ltd 1970.

(4) Fieldwork by Taylor, Nelson & Associates.

(5) See M. Arnott and Mrs. E. Rodnight 'Public Policy and measuring the open-ended situation' ESOMAR 1974 where there is discussion of campaigns on Housing Improvement Grants and Legal Aid and Assistance.

(6) For example, the campaigns on Seat Belts, discussed in Peter Morrie "Road Safety Publicity: Quantifying the Effectiveness of public servics advertising". The Advertising Association, 1972 and G. E. Levens and Mrs E. Rodnight 'The Application of Research in the Planning and Evaluation of road safety Publicity' ESOMAR 1973.

(7) Fieldwork by Mass-Observation Ltd.

(8) Fieldwork by Public Attitude Surveys Ltd.

(9) Fieldwork by Research Services Ltd.

(10) Fieldwork by British Market Research Bureau Ltd.

Family Expenditure Survey. A study of differential response based on a comparison of the 1971 sample with the Census

W. F. F. Kemsley, *Chief Social Survey Officer, Office of Population Censuses and Surveys*

Summary

The problem of non-response in the Family Expenditure Survey (FES) is one that it is difficult to examine because of the lack of information about those who fail to take dart in the inquiry. The subject is of considerable importance, however, because differential response may lead to biases in the achieved sample, and these in turn may partly account for discrepancies between the FES and other data.

This article identifies some of the areas in which differential response appears. This has been made possible by supplying the Census Offices with a list of the households drawn in the 1971 FES sample: the Census Offices identified the 1971 Population Census returns of these households and from these they produced statistical tables which they supplied to Social Survey Division. Substantial variations in response rate were found; households with children and those where the head was self-employed produced lower response rates. Particularly marked was the variation with the age of the head of the household or with the age of the housewife. There was a pronounced decline in response with increasing age.

Introduction

The FES has been operating continuously since 1957. It provides data on household expenditure and income. This information is obtained partly from interviews and partly from records of expenditure completed directly by household members. The Social Survey Division of the Office of Population Censuses and Surveys is responsible for all stages of the survey operations in Great Britain up to and including the manual preparation of documents prior to the computer stage. The Social Survey responsibility covers the design and selection of the samples, the detailed design of the questionnaires, fieldwork and manual editing of the completed questionnaires and diaries. This article does not cover the corresponding survey in Northern Ireland.

As with all voluntary inquiries a proportion of the sample will fail to co-operate. In the FES this accounts for about 30 per cent of the pre-selected sample. Incidentally, virtually all the non-response arises from refusals; interviewers make repeated attempts to contact each unit in the pre-selected sample; in 1971 only about 1 per cent of the total sample could not be contacted. A non-response of this magnitude provides ample scope for the occurrence of differential response, so that the final achieved sample may differ substantially from the sample as originally selected. The possibility of bias arising in this way is of considerable importance in the investigation of discrepancies between FES results and other data. Discrepancies are probably the result of several factors, of which differential response is only one. Nevertheless, it would be of considerable value if it were possible to assess the contribution made by this factor and eliminate its effect.

Reliable information on differential response has, so far, been very limited. The study described in this article adds greatly to the information available. Before describing the results it must be explained that the article is confined to a study of response rates. It does not aim to compare FES data with other material. Direct comparison with Census data would be virtually useless. There are few items in the Census which are directly comparable, and none relates to expenditure and income, the main topics covered by the FES. Comparisons of this type, for example with data in the National Accounts, are outside the scope of the present study.

Background data on FES response

Some information has already been published in the Technical Handbook (1) issued by the Social Survey, in particular, Table 7.2 in the Handbook gives quarterly rates from 1957 to 1968. Table 1 up-dates this information to 1974.

Response by quarters 1969-1974

Table 1

	Quarters				
	I	II	III	IV	Year
		Response per cent			
1969	69·3	66·9	65·2	66·3	66·9
1970	66·1	69·9	69·5	68·5	68·3
1971	69·2	69·1	70·0	69·8	69·5
1972	70·2	69·9	67·0	63·5	67·7
1973	69·0	68·4	67·9	67·7	68·3
1974	71·9	70·7	72·6	69·7	71·2
		Number of co-operating households			
1969	1765	1698	1664	1707	6834
1970	1669	1044*	1775	1742	6230
1971	1758	1771	1772	1786	7087
1972	1793	1775	1681	1618	6867
1973	1750	1743	1732	1746	6971
1974	1461*	1770	1760*	1558*	6549

*Reduction in numbers consequent on suspension of field work over periods of General Elections.

Response rates by standard region and by type of area were also given for 1967 in Tables 7.3 and 7.4 of the Handbook. Corresponding data for the six years from 1969 to 1974 are given in Tables 2 and 3. The most consistent feature is the steady increase in response by type of area, with the GLC showing the lowest rate and rural areas the highest.

Variation of response with Standard Region

Table 2

Per cent

Region	1969	1970	1971	1972	1973	1974
Northern	71·8	71·1	73·2	70·8	73·1	75·4
Yorkshire and Humberside	68·6	70·9	68·8	72·0	71·1	74·9
North Western	66·0	70·3	70·0	66·2	69·1	70·6
East Midlands	69·3	71·6	71·4	69·5	70·7	72·2
West Midlands	66·1	67·2	69·1	67·0	69·4	69·0
East Anglia	69·8	68·7	77·8	75·0	69·5	73·6
Greater London Council	58·4	59·3	60·4	58·6	59·4	64·2
South East (excl GLC)	68·1	69·0	71·2	69·1	67·2	69·7
South Western	66·7	71·6	72·3	66·3	71·2	74·4
Wales	69·0	72·7	68·9	69·6	75·4	79·1
Scotland	71·3	70·2	73·8	70·8	67·7	73·4
All regions	66·9	68·6	69·7	67·7	68·3	71·2

Variation of response with type of area

Table 3

Per cent

Type of Area	1969	1970	1971	1972	1973	1974
Greater London Council	58·4	59·3	60·4	58·6	59·4	64·2
Provincial Conurbations	65·4	69·6	68·5	64·9	67·4	70·0
Other Urban Areas	68·4	69·3	71·3	69·5	69·8	72·7
Semi-Rural Areas	71·1	71·6	72·8	73·1	70·7	72·9
Rural Areas	71·2	73·4	78·1	69·0	77·0	77·4

These analyses depend only on certain simple features of the primary sampling units, namely the year and quarter in which an area was used, and the region and type of area. A more penetrating analysis of sample bias requires a detailed knowledge of each individual household in the sample, irrespective of the outcome of the survey, and it is here where difficulties arise. In practice, very little data are available before the visits of interviewers to the pre-selected addresses. Attempts have been made to ask non-co-operating households for information, but these have not met with any marked success even when the details sought have been kept to a minimum. For obvious reasons, income and other important items are unlikely to be forthcoming from people who refuse to co-operate in the main survey.

The Technical Handbook already quoted gives two further tables (15.2.1 and 15.2.2) showing differential response rates by rateable value and size of household. Both depend to some extent on information from non-co-operating cases, and as explained on pages 89-90 of the Handbook, this may affect the validity of the response rates quoted. The exercise now to be described is independent of considerations of this kind. All the classification information comes from a single source, the Census; it is thus consistent as between those who co-operated in the FES and those who did not.

Information on identity used in the matching process

This section explains how the matching was carried out. The procedure adopted was bound up with the arrangements made by the Social Survey to ensure the confidentiality of the inquiry. This section therefore begins with a description of the confidentiality arrangements as they apply to the FES.

Information about the identity of those who take part in a Social Survey inquiry is never disclosed to anyone outside the department. Informants on all surveys are given a confidentiality pledge covering this aspect and covering also the confidentiality of the data provided by them. This applies whether the information was given orally to the interviewer or recorded by the informant on a self-completion document. In the FES the field documents, that is the interview schedules and record diaries, bear neither address nor names of the individuals taking part.

All identity information is recorded separately. Access to these identity records is carefully controlled and is not available to any staff handling the Field documents once the initial stage of checking them has been completed. However, the fact that the Social Survey and the Census Office have since May 1970 been part of the same department afforded an opportunity to secure data on the whole of the 1971 pre-selected samples, that is on non-co-operating cases as well as co-operating ones. The Census Division of OPCS and the General Register Office for Scotland agreed to match certain FES identity documents with the Census data, and from this match to provide Social Survey with certain tables. The Census Offices did not see the FES field documents, nor did the Social Survey see the Census returns. The remainder of this section describes the FES identity documents used in the matching exercise.

The original sample information consists of lists, each of sixteen addresses, selected from the Electoral Registers for each of the fifty six areas constituting the sample for a month. Each list contains the address and the surnames of everyone registered at that address. The purpose of these lists is to ensure that interviewers locate and visit the samples pre-selected for that month. At each co-operating household the interviewer also makes out a special form at her final call. The primary purpose of this form is to facilitate the payment of £2 to each co-operating individual (£1 up to the end of June 1971). It is also used if the Social Survey wishes to contact an informant again either to query some item already recorded in the FES, or in a follow-up survey. The form contains the postal address of the household and the surnames and initials of each household member who was sixteen or over at the time of interview. There is a separate form for each co-operating household. The information on this form is naturally more up-to-date than the Electoral Register from which the FES sample was drawn. It is an identifying document only and does not contain any of the data collected and recorded at the interview or in the diaries. After some years these identity forms are destroyed.

Identity information corresponding exactly to this is not available for those households who do not agree to take part in the FES. However, as already explained, the list of addresses given to an interviewer contains the surnames shown on the Electoral Register current at the time the sample was drawn. For each non-co-operating case the interviewer is asked to check whether anyone with a listed surname is still living at the address, and to add the surnames of any other residents. This is done both for refusals and non-contacts, so far as the interviewer is able, on a special form.

The identity documents described in the preceding two paragraphs form the basis of the sample check with the 1971 Census. Altogether, the Census Offices were provided with the identity details of 10,150 cases. This is the whole of the 1971 sample except for forty two where the identity forms were no longer available; the total 1971 sample on which the 69·5 per cent of Table 1 is based consisted of 10,192.

Success of the matching operation

The position is summarized in Table 4 for the whole year. Identification was successful in about 94 per cent of cases. For 3 per cent however, the household co-operating in the FES could not be identified in the Census. Two kinds of cases occurred; in one, the household had co-operated in the FES at some time prior to the Census, but by that time had been replaced by a different household. In the other, the reverse situation occurred; by the time the address was visited by an interviewer the Census household had moved and had been replaced by another. In a further 3 per cent not even the address could be identified. Not very surprisingly, the matching was slightly more successful with co-operating households, where the identity information was more complete, than with refusals and non-contacts.

Results of the matching exercise

Table 4

	Co-operating households	*Refusals and non-contacts*	*Whole FES sample*
Household identified in 1971 Census	6,721	2,850	9,571
Address identified, different household	159	116	275
Not identified	195	109	304
	7,075	3,075	1,0150
	per cent	*per cent*	*per cent*
Household identified	*95·0*	*92·7*	*94·3*
Different household	*2·2*	*3·8*	*2·7*
Not identified	*2·8*	*3·5*	*3·0*
	100·0	*100·0*	*100·0*

The results for each quarter are broadly similar, but show slight variations due partly to the varying difference in time between the FES interview and Census night, and partly from the up-to-date-ness of the Electoral Registers. The 1970 Electoral Register would have come into use just before the second quarter, so that this period is likely to contain the least number of cases where a complete matching was not possible because of a change in occupancy. The best matching occurred in the second quarter when it was successful in 96 per cent of cases; the least satisfactory in the fourth quarter at 92 per cent.

The comparisons that follow are based on all cases where the household or the address could be identified, that is on the 9,571 cases in the first row of Table 4 together with the 275 in the second row, making 9,846 in all. In the examination of the differential response rates that follows, the four quarters have been taken together in order to provide an adequate sample. The 9,846 cases in this comparison are slightly biased in favour of co-operating households since the overall response rate for the 9,846 was 69·9 per cent compared with 69·5 per cent for the whole sample of 10,192.

Differential response found from Census check

The matching described above produced two sets of distributions, one of co-operating households and one of non-co-operating cases, each pair of distributions classifying the FES cases by a Census variable. The FES being a household survey, all these variables, seventeen in all, refer to an attribute of the household, or to an attribute of a particular household member, such as the head. Each pair of distributions has been compared using χ^2 as a measure of the association between the two. The values of χ^2 for the seventeen variables are set out in Table 5.

Differential response as measured by χ^2

Table 5

Census variable	χ^2	*Degrees of freedom*
Household type	35	4
Number of household members in employment	28	5
Number of persons usually resident in household	53	9
Car ownership	40	3
Social class of head of household	45	6
Socio-economic group of head of household	148	18
Marital condition of head of household	39	4
Educational attainment of head of household	13	3
Educational attainment of housewife	10	3
Household tenure	28	4
Availability of inside WC	6	3
Employment status – head of household	76	5
Year of birth – head of household	292	11
Year of birth – housewife	258	12
Number of household members under fifteen	137	5
Sharing of dwellings	under 1	1
Occupation – head of household	104	27

Many of the values are high, and indeed an application of the usual significance test would indicate that most are well above any conventional level of significance. However, the FES is based on a multi-stage design, so that some allowance should be made for a design effect in applying the test. The design effect is produced by the geographical clustering of households arising from the need to confine the quota for an interviewer to the reasonably compact geographical area of an Electoral Ward. The correct allowance for the design factor is not known, but it is more likely to be important for characteristics associated with accommodation rather than those dependent on some individual characteristic. Even if adjustments were possible, it seems unlikely that this would reduce the level to such an extent as to render it insignificant, particularly for variables such as employment status or the age of the head of the household.

Some variables are clearly associated, as with age of the head of household and housewife. Others are inter-related because of the method of derivation; this applies to social class, socio-economic group, occupation and employment status. Tables showing separate response rates for categories defined by some of these variables are given in the Appendix. The variables shown have been selected as displaying a substantial degree of differential response, and at the same time having a reasonable number of cases in each category. No significance test is needed to show that there is a substantial differential associated with age, with the presence of children and employment status. As regards the last item, Table A5 indicates that the self-employed are correspondingly less co-operative than the great majority of employees and non-workers. As regards the breakdown by children, it would appear from Table A4 that most of this differential arises according to whether the household contains children or not; the precise number seems irrelevant.

Much the most striking result to come out of this analysis is that of the variation with age. It is clear from even the most casual inspection of Table A8 that there is a fairly consistent decline of response with age. The application of regression technique to the data, which in itself provides a more efficient test than χ^2 used in Table 5, confirms this feature. There is a regular falling off in response of about two per centage points for each increase of five years (Table 6).

Regression of response rate on age

Table 6

	Head of household	*Housewife*
Regression coefficient – rate per 5 years *per cent*	–2·22	–2·08
Estimated response at 45 years *per cent*	72·22	71·21
Correlation coefficient between response rate and age	·9180	·9160

The two regression lines are practically parallel, with the head of household line being about 1 per centage point above the corresponding line for the housewife. A linear regression gives a fairly good fit, although there is some evidence that a curved relationship might be even better; the actual response rates are slightly above the line both at younger and older ages. Immediately after the usual retirement age there is a slight but temporary improvement in response; for the head of household this appears in the 66-69 age group, and for housewives in the 61-69 age group. The correlation coefficients given in the last column of Table 6 relate to the correlation between age and the average response rate for an age group. In relation to the total variance of response, the linear regression accounts for about 12 per cent of the variance.

Since the FES involves record keeping it might be thought that co-operation would come easier from those with some higher educational qualification. Table A7 has been included for this reason. It shows, however, that although there is some improvement in response, it is small in comparison with many of the other differentials mentioned above.

Reference

(1) *Family Expenditure Survey, Handbook on the Sample, Field-work and Coding Procedures* by W. F. F. Kemsley. (HMSO 1969). (Price 92½p net).

APPENDIX

VARIATION OF RESPONSE WITH HOUSEHOLD CHARACTERISTICS

A1–Household type

	n	r
No family	2,069	66
1 family, no other	6,979	72
1 family, others	631	64
2 families, no others	127	70
All others	40	60

A2–Household Tenure

	n	r
Owner occupied	4,837	68
Council or New Town	3,055	72
Rented unfurnished	1,663	69
Rented furnished	265	75
Not known	26	42

A3–Household size

persons usually resident	n	r
1	1,673	67
2	3,130	68
3	1,913	69
4	1,695	74
5	842	74
6	346	77
7	111	76
8	55	71
9+	53	76
Not known	28	43

A4–Number of children (under 15)

	n	r
None	6,344	66
1	1,400	75
2	1,283	78
3	496	78
4+	299	79
Not known	24	50

A5–Employment status* of head of household

	n	r
Self-employed:		
with employees	402	56
without ,,	496	63
Employees:		
managers	846	65
foremen	542	74
others	6,711	72
not available	849	67

*Related to main employment in week before Census night or to the most recent job if retired or out of work.

A6–Car ownership

	n	r
no car	4,847	69
1	4,130	72
2 or more	852	62
Not known	17	47

A7-Educational attainment

	Head of household		*Housewife*	
	n	r	n	r
Degree	457	71	140	71
Other higher qualification	373	77	409	76
A level or equivalent	354	73	267	73
Unqualified or none stated	8,662	69	9,030	70

r = response per cent n = base of percentage

A8–Age distribution

	Age of head of household		*Age of housewife*	
Age in 1971	n	r	n	r
16–	28	100	95	88
21–	387	88	620	86
26–	655	85	770	84
31–	754	81	794	77
36–	754	74	788	75
41–	884	73	896	71
46–	971	69	935	67
51–	904	67	881	65
56–	1,026	65	933	63
61–	1,027	62	962	66
66–	916	66	790	65
71–	1,520	62	1,362	62
age not known	20	45	20	45

The Survey Control Unit computerisation scheme

John A. Perry, *Senior Assistant Statistician, Survey Control Unit, Central Statistical Office*

Background

The basic function of the Survey Control Unit is the assessment of all new statistical surveys initiated by Government and quasi-Government bodies, and of existing returns when these are being significantly changed. A brief article outlining the factors considered in such assessments appeared in *Statistical News* 21.15 and each subsequent issue has carried a table indicating the number of surveys assessed in the most recent quarter. Essentially the Unit seeks to represent the viewpoint of the survey respondent.

A major part of the assessment work involves checking whether an individual survey duplicates any survey previously conducted. Such duplication may occur in the topics being researched (for example unemployment characteristics, housing conditions or retail turnover) or in the respondents being contacted or in the areas in which the survey is being conducted.

Although not an integral part of the assessment work, regular summaries of surveys assessed are produced as basic management information and requests are received from many sources for lists of surveys on specified topics. At present each survey is allocated its own unique reference number, one of a sequence allocated to each department. The files for each survey are stored in numerical order and indexed by a bound ledger system. Retrieval of information by file number is therefore simple, but when requests are made by topic the indexing does not allow for easy access. In many cases this has meant that incomplete information has been provided and invariably the reply has taken a considerable time.

Need for the revised system

Survey assessment depends to a considerable extent on the memory of individuals within the Unit, with the associated problems of continuity. Also the Unit regularly and frequently receives queries such as the following: Have there been any studies on funeral expenses? Can you list the financial returns requested of local authorities? Which forms have been sent to particular types of businesses in the last twelve months? Have there been any surveys of industry in the North West region? What studies link age, sex and type of employment? What is a typical average cost of an interview if the survey is undertaken by a non-government agency? How long may an interview last? Which unions or trade associations have been consulted on surveys on a particular topic? Which government surveys use panels of respondents? What sampling methods are commonly employed? How many surveys culminate with the results being published or becoming publicly available?

It was felt that the only satisfactory long-term method for meeting requests such as these and for developing the assessment work more thoroughly was the computerisation of the unit's records, although this required the large task of installation of details of past surveys. With the aid of the Central Statistical Office's computer branch a possible scheme has now been piloted and this article discusses its form, potential uses and implementation.

The computerised system

Each of the Survey Control Unit survey files normally contains a copy of the questionnaire used, any introductory letter to respondents, various administrative details about the survey, and correspondence associated with it. The required administrative details were stipulated in the revised terms of reference for the Unit issued in March 1972 and, since mid-1973, consolidated in a reporting form. A computer entry is made of the details on each survey file, summarising the reporting document, extra details collected as part of the assessment work and a list of key-words.

The reporting details include the number of respondents to be approached and expected response rate, a description of the respondents, details of sampling arrangements, assessment of the burden on respondents, details of any consultations with respondents or their representatives, and the agency responsible for undertaking the survey if this is not the government department. Details collected as a result of the assessment work include the actual grading given, the type of survey (small or large; single-time or continuous), what kind of report of the results is envisaged, the type of introductory letter, the kind of form and design used, the number of pages occupied, the Survey Control Unit assessor, and any files known to be associated with the study in question.

An important part of the system is the use of key-wording to store information about both the type of respondent to be surveyed and the questionnaire. The title of the survey conveys some information and a key-worded list of titles will be produced. But this is not always very helpful. Who, for example, except for the researcher and presumably the respondents, would guess that an 'Uplands Survey' really asked about the ownership of second homes?

Obviously the type of respondent and his activity are useful key-words, but experience has shown that in some cases a more precise description is required. The sampling methods are described briefly in the reporting document but it is considered desirable to include descriptors of all the methodological aspects of the survey; for example, were incentives offered to respondents? Were respondents contacted at the roadside? The location of respondents by standard region is coded but in some surveys this is not sufficiently precise. Space is provided at the end of the input document to enter as many words as are necessary to describe these aspects of the survey. In addition to key-words derived from the title, and those relating to methodology, location and respondent, two other groups are used. The first is a list of topics of general applicability across departments and types of respondent, for example employment, sales, leisure. The second list is free of any structure, describing specific groups of questions within the questionnaire.

These key-words have been built into a thesaurus, and the following extract illustrates its nature and the type of key-words which have been adopted.

Example 1: Sample of key-word thesaurus

Radio see also Media
RAF see Forces
Rail see also Transportation
Rank see Forces, Police
R and D ie research and development
Raspberry see Fruit
Rates
Reader
Rebates

The 'see' instruction means that the word is sufficiently synonymous with the word already in the thesaurus for it to warrant exclusion as a key-word in its own right although it is retained in the list for reference; thus RAF, Rank and Raspberry are not key-words while Forces, Police and Fruit are. Where 'see also' is used, both words are key-words, the word to the right being a more general description.

Now that all surveys currently on the Unit's files have been coded, the range of words will increase slowly as new surveys are studied or additional information is received for surveys already input to the system. Additions may also be made on the basis of further experience.

Uses of the system

Both the system and the regular output (discussed below) have been devised to meet the following needs:

a. to aid survey assessment by providing a list designed for easy reference through which duplication or overlap of surveys might be recognised;

b. to help meet *ad hoc* requests for information from government departments or outside agencies, many of which have been for lists of surveys together with certain details on each; and

c. to provide management information such as the monthly lists of surveys assessed, which has a wide circulation throughout government departments.

A speedy response from the system is essential if these needs are to be satisfied. Because writing computer programs to satisfy each request always delays the response and therefore may make the answers less worthwhile, the output of the system has been designed around a basic group of listings and tabulations which are pre-programmed. These listings are of three main types.

First, a full print-out of all details for each survey will serve as an accurate up-to-date record for the Unit. Whilst essentially produced for the regular assessment work of the Unit, it would also satisfy some requests for detailed information; already some copies of the reporting document are produced for a limited circulation.

All surveys on specified topics may be traced by reference to appropriate key-words. These are listed in what is called a KWOC (Key-Word Out of Context) listing. For example, if a new survey on road accidents arrived, the list could be consulted to give the file numbers of all relevant surveys, by reference for example to 'accident', 'injury' and 'road safety'. As already mentioned, a key-word describes an aspect of the questionnaire or sample. Because of the variety of uses to which this listing will be put, an accurate and extensive description of each survey is required, hence the need for the open-ended structure. It is intended to produce the KWOC listing regularly, at monthly or quarterly intervals, and this will provide a ready reference for the simpler queries that arise. An example from a typical list is included below.

Example 2: Part of a KWOC listing

Key-word	Title	SCU No.	Department
Carpet	Quarterly production – carpets	8122	BSO
	KS inquiry – carpets and rugs	8268	BSO
	KS inquiry – carpets and rugs	8269	BSO
	1974 Purchases inquiry – carpets	8471	BSO
Car-sharing	Car sharing in Southampton – pilot	6999	TRRL
Catering	Hotel and catering ITB statutory return	0088	TSA
	Training needs in the hotel and catering industry	0159	TSA
	Hotel and catering industry feasibility study recruitment	0191	NEDO

Thirdly, a monthly list of surveys assessed, already produced manually would be provided. Example three contains typical entries from a recent list.

Example 3: Part of a typical monthly list

Survey Control Unit number	Title	Department	Respondent Type	Respondent Activity	Number of Respondents
0165	Footwear leather and fur skin ITB statutory return	TSA	Business	Manufacture	1000
1104	Fourth Energy study	COI	Household		2500
1105	Trade survey on home insulation products	COI	Business	Service	500
6103	Mechanical engineering process plant contractors	DI	Business	Engineering	. .
7564	Aspects of mobility of old people	TRRL	Household	Elderly	600

Delays of up to five weeks have been experienced in producing this monthly list manually in duplicated form; it is hoped however that it will be completed within a day or two of the last assessment being put into the computer system. In addition, as part of the Unit's assessment work, similar summaries are retained by each assessor in the Unit for his own surveys. A further reference list would take the place of the Unit's ledger.

As well as these Pre-programmed listings, more conventional tabular output in the form of cross-tabulations and of frequency distributions, as exemplified by the contribution to *Statistical News*, would be possible on both an *ad hoc* and a regular basis.

Departments requiring information would be supplied either immediately with a copy of a pre-programmed output if suitable, or a special *ad hoc* tabulation with a slight delay. Should the number of requests increase greatly the computer system has been designed to allow for easy assimulation to a Visual Display Unit.

Although some output has been standardized, *ad hoc* requests requiring specific computer programming will be inevitable. While the staff of the Unit could perform regular tasks, this special work will be undertaken by the computer branch.

Implementation of the system

The files relating to all surveys which have been reported to the Survey Control Unit, nearly 3,800 in total, not all of which refer to current surveys, have been placed on the computer store. Approximately 1,500 of these files referred to surveys which have been assessed, although many do not contain a reporting document, which is an aid to efficient coding of the contents. Only about one-fifth of all files include such a document, which was introduced in June 1973.

In the first six months of 1975 about 400 surveys were assessed, including many surveys already in the 'field'. The number of new surveys is much smaller, so that this will not necessarily be typical of the rate of growth of the computer file. However, with the backlog completed, there remains the on-going work of creating the input documents, checking coding and punching, processing requests for output, and eventually taking over some of the programming from the computer branch.

Summary

The computerisation of Survey Control Unit records should result not only in a better assessment of surveys but also a greater availability of information. The use of key-words has resulted in a flexible system, enabling the extraction of information in a variety of forms. Inquiries, in general terms or relating to particular points, are welcome and should be addressed to either P. W. Brierley or J. A. Perry at:

The Survey Control Unit,
Central Statistical Office,
Great George Street,
London,
SW1P 3AQ.
Telephone: 01-233 7341 or 01-233 8561.

The Ministry of Defence and the new British standards on sampling inspection

By J. C. Gascoigne, *Statistician, Ministry of Defence*

The law advises the buyer to beware. Commonsense suggests that the producer, in defence of his reputation, should be equally vigilant but with mass production it becomes impracticable, if not impossible to test everything. The solution is therefore to test samples to assess the quality of the raw materials, the components and the completed products. But to plan and carry out this process of sampling inspection requires the use of quite sophisticated statistical theory. There is evidence that some organisations either do not understand or fail to implement the more efficient methods of quality assurance. To assist both producers and consumers, the British Standards Institution has published a series of volumes of methods of sampling inspection, standardising suitable procedures.

Equipment for military use is nearly all designed to assist in delivering an explosive device to its target. Little imagination is needed to see that poor quality in the equipment may lead to the explosion occurring in the wrong place. The standard of quality control in the manufacture of military equipment may therefore need to be higher than that necessary for products for every day use, but the methods used are universally applicable.

Military standards on sampling inspection have existed since the last war and, in their later versions, became *de facto* international standards; but they had received no formal recognition as such. This created a technical problem for the International Organisation for Standardisation (ISO) as a number of their standards which dealt with individual products, necessitated reference to the statistical sampling plans contained in the military standards. Accordingly the appropriate Technical Committee of ISO, at their meeting in Paris in November 1970, took the first steps which led to the setting up of a working group, whose task was to create an ISO standard and a guide to sampling by attributes. Later, when the United Kingdom Ministry of Defence (MOD) draft on sampling by variables was published, another working group was established to produce a companion ISO volume on variables. The secretariat and chairmanship of these two working groups was vested in British Standards Institution and the United Kingdom delegation was led by the MOD statistical representative on the BSI statistics committee.

The BSI agreed to produce British Standards in parallel with the ISO documents for use within the United Kingdom, and since the national machinery is less cumbersome (there was no need to translate any document), the two volumes on attributes have now been published as British Standards and the final draft on variables has been circulated for comment.

Sampling for inspection by attributes

BS6001: 1972 *Sampling Procedures and Tables for Inspection by Attributes* presented few problems: the joint American British Canadian Defence Standard ABC-STD-105 (alias US MIL-STD-105D, UK DEF 131-A, Canadian CA-G115) had been in existence since 1964 and had received world wide recognition. Defence Standard 05-23 lists 11 alternative national titles used within NATO! Even BSI itself had issued it previously as BS9001 in their series on Electronic Parts. So apart from a new cover, with yet another code number, not a word was altered. This text has now been accepted internationally as ISO 2859.

BS6000: 1972 *Guide to the use of BS6001* is based on the United Kingdom Defence Guide 7A (the *Guide to DEF 131-A* written by I. D. Hill Esq). The only changes made by BSI were to metricate the examples and correct some very minor misprints reported by the original author. With some further slight rearrangements by David Hill this is now approaching the final stages of becoming an ISO Standard. (ISO/DIS 3319).

Sampling for inspection by variables

BS6002 *Sampling Procedures and Charts for Inspection by Variables* is not a simple case of rebinding and renumbering an existing military standard. The 1957 United States MIL-STD-414 on sampling by variables, though soundly based, is a daunting volume, for not only is the basic theory outside the knowledge of the ordinary inspector, but the schemes proposed are too numerous and too complicated. It had accordingly fallen into desuetude and was not considered acceptable in its present form by the ISO experts.

In 1968, two years before the ISO/TC 69 meeting in Paris, the Defence Material Standardisation Committee had set up a working party, under Professor A. K. Weaver of the Royal Military College of Science, Shrivenham, to prepare a new United Kingdom defence standard on sampling inspection by variables and a draft standard, MP 191/1, was produced in 1971 by the Quality Assurance Directorate (Weapons), Royal Arsenal, Woolwich.

MP 191/1 received little attention in this country, but, as part of the joint American, British, Canadian, Australian military standardisation programme (ABCA), it had been passed to the United States Army, who in turn sent a copy to the American Society for Quality Control (ASQC).

The ASQC set up a distinguished task group, chaired by Professor Acheson J. Duncan, which carried out a most painstaking review of the script and made a series of very helpful suggestions: Professor Duncan himself rewrote three long paragraphs.

The amended version of MP 191/1 was published as UK DEF STAN 05-30/1 in March 1974. Its main claim to originality was that it offered a complete set of charts for use with a graphical method of judging the acceptability of a lot. The procedure is relatively simple and unified the two previous methods (or Forms) required to deal with the single and two-tailed specifications, but the actual Tables were still identical with those given for Form 1 in the United States MIL STD 414.

MP 191/1 was also circulated to the members of ISO/TC 69 and a series of ISO preliminary drafts, incorporating successive amendments, were drawn up in Woolwich for the BSI secretariat and discussed by the ISO working group in Budapest (1972), Lisbon (1973) and The Hague (1974) where a final draft was accepted.

Valuable contributions were made by the representatives of France, Germany (in particular the late Professor Rossow), Hungary, Italy, Japan and the USA. These discussions led not only to amendments of the text but also to a simplification of the tables, so that the operating characteristics of the sampling plans now fall into line with those of the plans in the latest version of the Standard on Attributes, ISO 2859/BS6001. Studies carried out in the Royal Arsenal, Woolwich, showed that this could be achieved by pruning certain of the original MIL STD 414 schemes and that no extensive recalculation was required.

A new draft, MP 191/2, incorporating these ISO recommendations, was published by the Quality Assurance Directorate (Weapons) in March 1975 as a draft for QSTAG 330 (ie the ABCA standard on inspection by variables) and a similar 'demilitarised' version has been issued by BSI as the Draft BS6002 which, subject to editorial amendments, will eventually become both a British and ISO Standard.

Current work

Work is proceeding within the ABCA quadripartite organisation to produce revised standards on continuous sampling by attributes (based on MIL STD 1235) and on verification sampling (based on H109) which may eventually lead to further documents in the BS6000 series.

Notes on current developments

POPULATION AND VITAL STATISTICS

Population density and concentration in Great Britain, 1931 to 1961

A study of this topic has just been published by OPCS. Starting from Census data of the population and its location, trends over time and variations between different localities in Great Britain have been analysed and discussed. Also comparisons have been made with some other countries. A similar study for 1951, 1961 and 1971 is in preparation.

Although population density is a concept which has recently received a lot of attention remarkably little analysis has been done. For example although maps (or listings) of population density are common it is rare to find a table summarising the total number of people living in the various density groupings distinguished on the map. Tables of this kind have been prepared (for ward and parish densities) and it is found that the distribution can be illustrated as a unimodal one with a marked trend over time in its shape and position. Although general knowledge would indicate a decline was to be expected in the numbers living at very high ward and parish densities the actual figures are still impressive – for instance a decline from three million people in 1931 living at a density of over 250 persons per hectare to two hundred thousand in 1961. Conversely the greatest increase in population was for the ward and parish density of forty to fifty persons per hectare in which the number of persons more than doubled.

Another limitation of the map or listing is that comparisons are restricted to the areas shown (or aggregates of them). But no two areas are the same size and shape; also a densely populated area may straddle administrative boundaries. So comparisons were made using four different sized squares as 'standard' areas. Each size of square was allowed to move a small distance at a time and at each position the population within it was estimated.

For international comparisons neither of the techniques outlined above could be used as the data for other countries were not detailed enough. Instead for each country the question was asked 'what is the density of the most densely populated unified area of specified size which can be constructed?' The area was formed by aggregating contiguous areal units (in this part of the study these were the nearest equivalent unit to the pre-April 1974 sub-divisions of standard regions), and the size of the area was steadily increased. The results show whether or not an area can be found in the United States, or Japan, or Europe, which is as densely populated as the whole or part of Great Britain.

The results of some other methods of analysis are also given as well as full methodological details. Potential readers should however note that the study is confined to a systematic analysis of population density and distribution; no judgements are made about optimum distributions or about the implications for policy.

Reference

Studies in Medical and Population Subjects No 30, *Population Density and Concentration in Great Britain, 1931, 1951 and 1961* by John Craig. (HMSO) October 1975 (Price £4·75 net).

Sub-national population projections

OPCS is developing a new projection model for the production of the mid-1974 based sub-national home population projections. These sub-national projections will be constrained to the 1974 based home population projections for England, a summary of which is due to be published shortly in *Regional Statistics No 11 1975*.

The new model will produce results for each year up to and including 2001 by single year of age for England, standard regions including a breakdown of the South East, counties, metropolitan districts and London boroughs. The results will then be published in a suitably condensed form during the first half of 1976.

Initially, a very brief summary of the results by area will be published in *OPCS Monitor* PP3 76/1. As this will be the first set of results using the new model and also the first set of OPCS projections for counties and metropolitan districts details of both the methodology and the results will form an article in *Population Trends.* More detailed results together with a commentary will be included in an annual reference volume later in 1976.

In the meantime, however, the Department of the Environment (DOE) has produced some 'crude trend' projections of the population of new counties controlled to the 1973 based projections for the New Standard Regions of England (*Statistical News* 29.21). They provide a broad interim guide to the allocation of population change between new counties until the official OPCS 1974 based projections become available.

Although the projections have been produced mainly to meet DOE's commitment to give advice to Structure Planning Authorities on sub-regional projections, authorities are expected to modify them to take account of their policies on population distribution themselves.

The projected new county population figures by broad age-sex groups at 1973, 1981 and 1991 together with a description of the method used may be obtained on request, as shown below.

Reference
Department of the Environment *Crude Trend Population Projections for New Counties 1973 to 1991* (reference SPR(POP) (75)7) available direct from:

Statistics (Planning and Regional) Division,
Department of the Environment,
Room S13/18,
2 Marsham Street,
London,
SW1P 3EB.

Population Trends

The first issue of *Population Trends*, the new journal of the Office of Population Censuses and Surveys was published in September. It is to be published four times a year – in September, December, March and June. In addition to articles on a variety of population and medical subjects, *Population Trends* contains a regular series of tables on such topics as births, marriages, deaths, migration, causes of death and abortions.

In the leading article of *Population Trends No. 1*, Norman Davis and Christopher Walker of OPCS Population Statistics Division discuss trends in international migration over the last ten years and examine the effect of migrants returning to their country of birth on the United Kingdom's migration balance.

In the second article, David Pearce of OPCS Population Statistics Division looks at recent trends in the numbers of annual births and in particular the increasing childlessness among couples recently married.

Dr. J. A. C. Weatherall of OPCS Medical Statistics Division examines possible reasons why England and Wales fell between 1960 and 1971 from eighth to eleventh place when infant mortality is compared with that of fourteen other countries and why our figures lag behind those of the Scandinavian countries. Of particular interest is the analysis of causes of death of babies aged between 28 days and one year – the post neonatal stage of infancy.

In the fourth article, on the development of life tables, Peter Cox of the Government Actuary's Department traces the progress of the early pioneers from the times of Samuel Pepys onwards, and the search for a measurement of mortality. Mr Cox describes the principal characteristics of the life tables we use today and refers to the influence on mortality of age, sex, marital status and occupation and of factors associated with occupation.

The forty pages of tables giving quarterly and annual figures continue many of the series previously published in the *Registrar General's Quarterly Return for England and Wales*. In subsequent issues these will provide a regular series of statistics. Most of the figures relate to England and Wales but summary tables are included for Wales and Scotland, with Great Britain and United Kingdom aggregates.

Population Trends No. 2 due for publication in December will contain, in addition to the regular tables, articles on country of birth, women at work, suicides, a follow up article on life tables and a report on the geographical analysis and mapping of national grid square statistics from the census.

References
Population Trends No. 1. (HMSO) September 1975, £2 net.
Population Trends No. 2. (HMSO) due in December 1975, £2 net.

Vital statistics – Scotland

The Registrar General's second quarterly return for 1975, to be published next month, contains Scottish and regional migration estimates for the second half of 1974 in addition to the usual quarterly tables.

A provisional quarterly table for the third quarter of 1975 (weeks 27-39) was included in weekly return No 42, issued in October.

1971 Census of Population – Scotland

The following census reports, subsequent to the county series, have now been published.

Topic	*Publication date*	*Price*
Population*	July 74	£3·70
Usual Residence and Birthplace	November 74	£2·50
Migration – Part I	January 75	£3·20
Gaelic*	February 75	£1·05
Housing*	March 75	£6·35
Household Composition	June 75	£5·75
Fertility – part I*	July 75	£5·85

*These reports include brief commentaries or validity checks in addition to the general explanatory notes.

The following reports, due for publication this year, have been laid before Parliament and extracts can be obtained from GRO customer services:

Migration II, Workplace and Transport, County Economic Activity tables.

More detailed Economic Activity tables at national and regional level are published jointly by OPCS and GRO(S) as a Great Britain series.

House condition survey 1976

A further house condition survey will be undertaken in the autumn of 1976 to obtain an up-to-date picture of the condition of the housing stock in England. This survey will be on similar lines to those carried out in 1967 and 1971 and will be based on a national sample of about nine thousand dwellings taken from the valuation lists. It is hoped that some preliminary results may be available by the beginning of 1977.

Family Expenditure Survey 1974

The recently published *Family Expenditure Survey report for 1974* is in the now well-established general format but, as usual, there are some new features.

A new table gives the average income by principal sources for households analysed both by composition and by range of household income. A new chart shows how the pattern of income sources varies with household composition and income; a similar chart showing the variation in expenditure patterns was introduced in the 1973 report.

Quantiles of expenditure and income are given for households of more different compositions. Quantiles of household income are given for households classified by range of household expenditure rather than of income as previously.

Much of the regional data on household expenditure and income, and the regional distributions of households by household characteristics, now relate to a two-year period. Since the 1973 report was published, a review of single-year data has disclosed unacceptably high sampling variation in the results for some of the smaller regions.

Reference

Family Expenditure Survey Report for 1974 (HMSO) 1975 (Price £3·50 net).

Social Trends

The sixth edition of *Social Trends*, the annual summary of social statistics, is due for publication about mid-November. Although some modifications have been made, it nevertheless retains the general format of previous issues. Opening with the social commentary, it continues with an article on urban deprivation, a note on subjective social indicators, and a series of tables and charts setting out both key statistics and others of current interest relating to all areas of social conditions and policy. A calendar of events and notes and background information are provided as well as comprehensive source and other references. It concludes with a subject index.

This year the Central Statistical Office's social commentary describes how some aspects of people's experience differ according to their 'social class'. This commentary is not an attempt at a sociological analysis, but is rather an assembly of data and comment on some aspects of those characteristics of people which have been analysed by social class in government statistics.

The second article by Sally Holtermann of the Department of the Environment, presents the results of an analysis of the small area statistics of the 1971 Census of Population. This analysis was made in order to identify the main areas of urban deprivation in Great Britain in-so-far as these could be measured by Census data, and to gauge the nature and severity of the problems in these areas. This work provides a relatively up-to-date picture of variations in living conditions at the local level within the cities and towns of Great Britain particularly in the inner areas of the old industrial cities.

Also included is a short note by Mark Abrams following his article on subjective social indicators, which aroused particular interest when published in *Social Trends No. 4*. This note gives up-to-date data and commentary on this subject.

About one third of the tables and charts appear in this publication for the first time. The remainder, which can be considered as the core of the publication, have been updated and in some cases slightly modified. As with last year, the increased emphasis on the presentation of charts has been maintained. Although the practice of arranging the tables and charts into topic areas broadly reflecting the administrative functions of government has again had largely to be followed, two new topic areas have been introduced in this edition. Firstly, those on Children and the Elderly have been widened and extended to produce a combined section on Households and Families. Secondly, Public Safety has been made the subject of a new section which subsumes part of the previous Justice and Law (now Civil Administration) but also includes new information on fire casualties, rail accidents, accidents in the home, and the civil disturbances in Northern Ireland. Existing sections continue to be developed, an example being the introduction in Health of data on preventive medicine.

The calendar of events, introduced last year, summarises changes in the law and other significant events, during the period 1969 to 1974 inclusive, which have influenced or are indicative of social change. The appendices listing statistical notes, definitions and terms, and sources and further references have been updated and thoroughly revised.

EEC Social Accounts

The latest volume of EEC Social Accounts[1] includes information on the three new member states for the first time. Figures relate to the period 1970-1972; earlier data were published only for the original six members of the community[2]. Information is given on 'social expenditure' both in absolute terms and as a proportion of the main national accounting aggregates. A detailed description of the EEC concept of 'social expenditure' was given in *Statistical News* 24.23. Methods of financing (for example central or local government, employer, or employee), and the allocation of expenditure (for example sickness, old age, invalidity, occupational injury, or unemployment), are included.

The present scope of the social accounts covers 'social protection' and therefore does not include education (although school meals and milk are included). Discussions are currently taking place about the inclusion of capital expenditure, adult vocational training and social expenditure on housing; it is also hoped to find a satisfactory treatment of tax allowances.

The methods of social provision vary as between member countries: some Governments will provide services where others supervise. The effect of this, on costs and quality, is not examined nor brought out in the figures. Nor do the accounts show the total resources devoted to each function. For example direct payments by patients for health treatment are excluded and much voluntary work for the aged, incapacitated and for children is not shown. However, the definition is wider than for the International Labour Organisation enquiry, not being restricted to systems set up by legislation nor to benefits (in cash or kind) which contribute to the maintenance of household income. Thus, for example, the costs of free treatment in Government hospitals appears in the Social Accounts. By definition, there must be intervention by a third party – so as to isolate the value of purely social as opposed to private provision – and this third party is not necessarily, nor in all cases, the State. The intervention of an employer who arranges for his staff to participate in bulk social provision is included in the total. Further details are obtainable from:

M J Murphy,
Central Statistical Office,
Great George Street,
SW1P 3AQ.

References
(1) *Social Statistics 3-1974: Social Accounts 1970-1972*, (SOEC 1975).
(2) *Statistiques Sociales 2-1972: Comptes Sociaux 1962-1970*, (SOEC 1972).
(3) *The Cost of Social Security 1964-66*, (ILO 1972).

HEALTH AND SOCIAL SECURITY

Cancer registration statistics

The national cancer registration scheme provides for Regional Registries to submit a standard abstract card to the Office of Population Censuses and Surveys for each cancer case diagnosed (in hospital) within their respective areas. Because the scheme is voluntary, its coverage of registration varies from region to region. Nevertheless these defects of reporting are not thought to be great enough to invalidate the main statistics.

The latest volume now available analyses

(a) cancer cases first diagnosed in 1968, in 1969 and in 1970.

(b) the rate of survival over fifteen years of cancer cases first registered in 1954 and 1955.

(c) the five-year rate of survival of cancer cases registered in 1962 and 1963.

The main tables in this volume are similar to those of earlier volumes and show numbers of registrations and registration rates by site, sex and age, distinguishing urban and rural aggregates for England and Wales and analysing them by site and sex for hospital region of residence.

Reference
Registrar General's Statistical Review, Supplement on Cancer, 1968-1970. (HMSO) (Price £5·20 net).

Cancer mortality statistics

In 1957 the General Register Office, now the Office of Population Censuses and Surveys, published a summary of statistics relating to cancer mortality and survival. In a new volume now available most of the tables of the original publication have been extended up to 1970. In some cases changes have been made in the light of current interest in certain cancer sites and of the greater precision made possible by classification changes.

The tables show death rates by sex and age for a number of cancer sites by five year age-groups and for five year periods; and illustrate in detail the changes in cancer mortality at different ages over the period 1911-1970. They have also been used extensively in research projects mainly to investigate the risk of contracting cancer in a certain population, for example, a population of people employed in a specific industry where a cancer hazard is suspected.

References
Cancer Statistics for England and Wales, 1901-1955: a summary of data relating to mortality and morbidity by A. McKenzie, R. A. M. Case, J. T. Pearson. Studies on Medical and Population Subjects No. 13, (HMSO 1957) out of print.
Cancer Mortality, England and Wales, 1911-1970. Studies on Medical and Population Subjects, No. 29. HMSO, October 1975, Price £5·25 net.

Infectious diseases – annual statistics

Now published is *Statistics of infectious diseases, 1974*, one of the new annual series of smaller volumes that replace the *Registrar General's Statistical Review of England and Wales part I*. It includes detailed analyses of the number of cases of infectious diseases notified to Medical Officers of Environmental Health. The two main tabulations give numbers of notifications of specific diseases by age and area respectively. These figures were previously published as Tables 30 and 31 of the Statistical Review part I.

Reference
Statistics of infectious diseases, 1974 (HMSO) (Price 85p net).

Doctors and dentists

The Supplement to the Fifth Report of the Review Body on Doctors' and Dentists' Remuneration, published in September 1975, sets out recommendations for the remuneration of junior hospital doctors and dentists to apply to new contracts of employment which may become effective from 1 October 1975. The proposed new system relates remuneration more closely to hours of duty than hitherto. The Secretariat is provided by the Office of Manpower Economics. The Supplement contains results from a special survey, carried out between May and July 1975 by the Health Departments on behalf of the Review Body, of the hours of duty (including time spent on stand-by and on-call) of junior hospital doctors and dentists in Great Britain, classified by grade, specialty, residence in the hospital precincts or elsewhere and whether full-time or part-time. Valid returns were received from 3,100 doctors and dentists, some 15·3 per cent of the estimated total population. The Supplement also describes the method used in reconciling the survey findings with those from other official sources, to provide the most reliable statistics on which to base the recommendations affecting remuneration.

Reference
Review Body on Doctors' and Dentists' Remuneration: Supplement to Fifth Report 1975 Cmnd. 6243 (HMSO) September 1975 (Price 56p net).

Incapacity statistics

Statistics of certified incapacity for work produced by the Department of Health and Social Security and described in *Statistical News* (5.14, 10.18 and 16.19) are now available in respect of the period 4 June 1973 to 1 June 1974. Details can be obtained from:-

Statistics Branch SR3C
Department of Health and Social Security
10 John Adam Street
London
WC2N 6HD
Telephone 01-217 3051

EDUCATION

Statistics of Education 1973

The 1973 edition of *Statistics of Education, Volume 4 – Teachers*, has recently been published. It contains over fifty tables of statistics relating to the training of teachers and teachers in grant-aided schools and establishments in England and Wales. The tables show that there were over four hundred and seventy five thousand full-time teachers employed in these schools and establishments on 31 March 1973 of whom 81 per cent were employed in maintained nursery, primary and secondary schools. In addition to the traditional analyses there are, for the first time, some tables which show the average ages and average service of full-time teachers in primary and secondary schools on each salary scale, the ages at which they were promoted and the salary scales from which they retired. Over 40 per cent of all full-time teachers were young teachers with a short length of service and on the lowest salary scale. Head teachers represented some 7½ per cent of all full-time teachers and they had a median length of service of twenty four years and a median age of fifty. The median ages for promotion between salary scales lay between twenty eight and forty four years. A quarter of full-time teachers who retired did so from a Head teacher post.

Reference
Statistics of Education Volume 4 – Teachers (HMSO) (Price £3·65 net).

MANPOWER AND EARNINGS

Quarterly statistics of employment

The Department of Employment has completed the recasting of its system of employment statistics which was made necessary by the abolition of national insurance contribution cards. A new series of quarterly estimates of employees in employment in all industries and services in Great Britain has been introduced, as foreshadowed in *Statistical News* 27.11. Estimates for September and December 1974 and March 1975 were published in the September 1975 issue of the Department's *Gazette*. Henceforth it is expected that estimates will be published three months after the reference month and thus much earlier than the old series which they replace. There are separate estimates of males, of females and of females working part-time for each industry Order group of the Standard Industrial Classification: previously only annual estimates were available for service industries. Moreover there are now regional estimates for fourteen broad-industry groups. When first issued the quarterly estimates are provisional, being subject to revision when the annual (June) estimates become available from the Census of Employment.

Reference

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

Northern Ireland: A new quarterly employment enquiry

In order to provide more frequent employment statistics a quarterly employment enquiry was introduced in June 1972 in anticipation of the withdrawal, in April 1975, of national insurance cards which had previously provided quarterly employment data.

Accordingly, beginning in September 1972 and subsequently each quarter, all employers of fifty or more workers have been contacted by the Department of Manpower Services and asked on a voluntary basis to provide information on their number of employees. Of the approximately thousand firms contacted (usually by telephone) only eleven did not provide the necessary data. This partial census used the Census of Employment as a frame and each year the sample was updated. In 1973/74 for example the coverage was 67 per cent of all employees.

However the quarterly enquiry was found to have several defects:-

a bias is introduced by omitting smaller employers since in a sector such as agriculture the bulk of employment is in smaller farms and the results are of little value whereas in the manufacturing sector where the bulk of employment is in larger firms the results are quite good;

the enquiry obtains information from firms but for an accurate industrial classification an establishment basis is needed since a firm may be involved in more than one industry;

if a firm included in the partial census merges with a firm excluded from it the quarterly enquiry will show an increase in employment when no change or even a decrease may in fact have occurred.

Despite its weaknesses the enquiry provided good estimates of total employment for 1972 and 1973. However for individual sectors the results were not so good and for certain industrial orders they were unacceptably poor.

The new quarterly employment enquiry which was introduced in June 1975 mainly overcomes the aforementioned defects by :-

including employers of twenty five workers and over;

making it establishment based so that a more accurate industrial classification is possible and the employment figures are not so distorted by mergers.

SIC Order I (Agriculture, Forestry and Fishing) will be excluded from the Enquiry as the bulk of employment is still excluded by the cut-off and in any case there is a biannual Farm Census.

Unemployment and vacancy statistics

From October 1975, the monthly statistics of registered unemployed relate to the second Thursday of the month and those of unfilled vacancies to the preceding Friday, except when public holidays make these days inappropriate. In recent years, they have related to the second Monday and the preceding Wednesday respectively, but, because of changed procedures, Monday has become one of the busiest days of the week. Extensive tests carried out by the Department of Employment have shown that the change from Monday to Thursday should have a negligible effect on the published figures for the level of unemployment.

Hitherto the unemployment totals have taken account of adjustments, made later in the week, to the count made on the Monday. These adjustments excluded those registrants discovered not to have been unemployed on the Monday and brought in those who were unemployed on the Monday but did not register until later in the week. The net effect was normally a small reduction, of a few thousand, in the Monday count total. Now that counts are made on Thursday, when the registers should be more stable, such procedures are no longer considered justifiable.

Two further changes have been made in the unemployment statistics from October. A figure for unemployed teenagers (aged under twenty) is now obtained each month. Adult students registered for vacation employment have been excluded from detailed analyses of the unemployed (but not from the total number of unemployed).

Reference

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

Articles on manpower planning

The series of articles on manpower planning in the *Department of Employment Gazette* (*Statistical News* 29.25, etc.) continued in the July issue with articles on manpower planning in road transport, agricultural apprenticeships and a view of occupational employment in 1981. The third article outlines the methods used by Mr. V. H. Woodward, Department of Applied Economics, Cambridge University to generate a set of projections of employment in the main occupational groups from the projections of employment in the main industrial sectors published in the May issue of the *Gazette* (*Statistical News* 30.31).

Reference

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

Survey of labour costs 1973

The main results of the survey of employers' total labour costs in Index of Production industries in Great Britain in 1973 (*Statistical News* 20.42) were published in the September and October issues of the *Department of Employment Gazette*. The sample survey was made at the request of the European Communities Commission and analyses of the survey data have been forwarded to the Statistical Office of the Communities. In the six original Community countries there was a survey of 1972 costs. There is to be a survey of 1975 costs in all the nine Community countries (*Statistical News* 27.14 and 29.26).

New Earnings Survey 1975

The results of the New Earnings Survey 1975 by the Department of Employment are being published in a six-part publication, as for the 1974 Survey (*Statistical News* 27.12):

Part A (Dec 1975)	Streamlined analyses of key results by agreement, industry, occupation, age and region.
	General results and description of survey methods.
Part B (Nov 1975)	Results for particular wage-negotiation groups.
Part C	Results for particular industries.
Part D	Results for particular occupations.
Part E	Results for regions, countries and age-groups.
Part F	Results for part-time women workers. Additional results for distribution, finance and insurance.

The main general results and streamlined analyses of key results for particular collective agreements, industries, occupations, age-groups and regions are also published in the November issue of the *Department of Employment Gazette*. These give a wide range of results in a very compact and convenient way, especially for those who may not require the more detailed analyses.

As foreshadowed in *Statistical News* (28.15), information obtained from the Survey and required by the Commission of the European Communities for a community survey of the structure and distribution of earnings in wholesale and retail distribution, banking and other credit institutions and insurance is being transmitted to the statistical office of the Communities. This does not include the identity of any employee or any company or organisation and has been authorised by a direction under Section 12 of the European Communities Act, 1972.

Reference

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

New earnings Survey 1975, a publication in six parts (HMSO) (Price 80p per part net).

Regional earnings

Regional statistics of gross annual earnings produced by the Department of Health and Social Security and described in *Statistical News* (1.22, 7.32 and 15.17) are now available in respect of the 1973/74 tax year and summaries will be published in the 1975 issue of the *Regional Statistics*. Details can be obtained from:-

Statistics Branch SR3C
Department of Health and Social Security
10 John Adam Street
London
WC2N 6HD
Telephone 01 217 3051

Progress towards equal pay

A further review of progress, by March 1975, towards equal pay was published in an article in the August issue of the *Department of Employment Gazette*. A similar review was published in August 1974 (*Statistical News* 27.14).

Reference

Department of Employment Gazette August 1975 pages 747 to 753, (HMSO) (Price 90p net).

Wage drift

A summary of evidence of wage drift obtained by comparing New Earnings Survey information on changes in average earnings between April 1970 and April 1974 with changes in basic wage rates was published in the August issue of the *Department of Employment Gazette*.

This new information relates to full time manual men and women reported to be affected by specific major national collective agreements or within scope of wages boards or councils.

Reference

Department of Employment Gazette August 1975 pages 754 to 756. (HMSO) (Price 90p net).

ENERGY

Energy statistics

The *Digest of United Kingdom Energy Statistics 1975*, prepared by the Economic and Statistics Division of the Department of Energy was published recently. Included with each copy is a pocket sized information card on which are summarised the principal statistics relating to energy, to individual fuels and the fuel industries. On the back of the card (as last year) is a simple set of scales for converting between tons of coal and oil barrels of oil and therms of energy. A more detailed set of scales, printed on a pocket sized plastic card, and covering in addition cubic metres and cubic feet of natural gas, and therms, kilowatt hours, megacalories and megajoules is obtainable on request from Room 762 EcS Division at the Department of Energy.

An innovation in the Digest this year is the inclusion of a six-colour energy flow chart which illustrates the flow of primary fuels from production or imports to their point of final consumption either in their original form or after conversion into different kinds of energy by the secondary fuel industries. The chart, which is a loose insert in the Digest, is accompanied by the energy balance *table* from which the chart was constructed and by a short explanatory text. The text has been devised to explain the subject in simple terms suitable for a wide non-specialist audience. (A wall chart version of this flow diagram may be available later and a transparency suitable for overhead projection may be produced if there is sufficient demand). The first section of the Digest relates to general energy statistics and the individual fuel components derived principally from other sections are assembled and variously expressed in their original units of measurement and, to facilitate direct comparison and aggregation, in terms of coal and oil equivalent and thermal content. Certain tables which formerly related only to consumption have been expanded and now show in simplified energy balances for each of the years 1964-1974 production, imports, exports, consumption and stock changes in each of the standardised units of measurement. The energy section also contains a number of charts showing how consumption patterns have altered during the last ten years. Other diagrams illustrate the changes that have taken place between the beginning and end of this period in terms of percentage shares of each fuel used by each of the main final consuming sectors.

Other sections of the Digest are devoted to individual fuels or subjects (such as foreign trade, prices) and in the main continue the well established series of tables and charts of previous editions. A table in the prices and values section which always attracts much attention relates to the prices of fuels used by manufacturing industry. With effect from the first quarter of 1974 this series has been changed and extended by the replacement of the original series by information obtained from a panel of eight hundred large fuel consumers. Average unit values are given for each quarter of the year and the table also shows the comparative cost of each fuel in price per therm of heat supplied. At the back of the Digest is the usual detailed information on conversion factors.

Reference

Digest of United Kingdom Energy Statistics 1975 (HMSO) Price (£6·60 net).

INDUSTRIAL STATISTICS

Business Monitors:

Annual Census of Production 1972

As the Business Monitors reporting the results of the 1972 Census of Production become available, they will be brought to the attention of readers in *Statistical News*. A list of the first of these Monitors to be published appeared in issue No. 30. Those published since then are listed below. They can be obtained on standing order from Her Majesty's Stationery Office, PO Box 569, London SE1 9NH (Telephone 01-928 6977), although they are not included in the global subscription arrangements for the Business Monitor series.

Business Monitor Number	*Description*	*Standard Industrial Classification Minimum List Heading*
PA211	Grain milling	211
PA216	Sugar	216
PA229.1	Margarine	229/1
PA232	Soft drinks	232
PA239.1	Spirit distilling and compounding	239/1
PA261	Coke ovens and manufactured fuel	261
PA274	Paint	274
PA275	Soap and detergents	275
PA277	Dyestuffs and pigments	277
PA278	Fertilizers	278
PA279.1	Polishes	279/1
PA279.2	Formulated adhesives, gelatine, etc.	279/2
PA331	Agricultural machinery (except tractors)	331
PA333	Pumps, valves and compressors	333
PA336	Construction and earth moving-equipment	336
PA337	Mechanical handling equipment	337
PA338	Office machinery	338
PA339.2	Printing and bookbinding machinery	339/2
PA351	Photographic and document copying equipment	351
PA361	Electrical machinery	361
PA382	Motor cycle, tricycle and pedal cycle manufacturing	382
PA383	Aerospace equipment, manufacturing and repairing	383
PA390	Engineers' small tools and gauges	390
PA395	Cans and metal boxes	395
PA399.1	Metal furniture	399/1
PA399.6	Metal hollow-ware	399/6 & 7
PA411	Production of man-made fibres	411
PA412	Spinning and doubling on the cotton and flax systems	412
PA414	Woollen and worsted	414
PA415	Jute	415
PA418	Lace	418
PA419	Carpets	419
PA422.2	Canvas goods and sacks and other made-up textiles	422/2
PA429.2	Miscellaneous textiles	429/2
PA431	Leather (tanning and dressing) and fellmongery	431
PA432	Leather goods	432
PA442	Men's and boys' tailored outerwear	442
PA449.1	Corsets and miscellaneous dress industries	449/1
PA449.2	Gloves	449/2

Business Monitor Number	*Description*	*Standard Industrial Classification Minimum List Heading*
PA450	Footwear	450
PA462	Pottery	462
PA463	Glass	463
PA469.1	Abrasives	469/1
PA472	Furniture and upholstery	472
PA473	Bedding, etc.	473
PA475	Wooden containers and baskets	475
PA479	Miscellaneous wood and cork manufactures	479
PA481	Paper and board	481
PA482.1	Cardboard boxes, cartons and fibre-board packing cases	482/1
PA482.2	Packaging products of paper and associated materials	482/2
PA483	Manufactured stationery	483
PA484.2	Miscellaneous manufacturers of paper and board	484/2
PA494.3	Sports equipment	494/3
PA495	Miscellaneous stationers' goods	495

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

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

Survey into brick making capacity

Arrangements have been made in association with the Business Statistics Office to conduct a voluntary survey into brick making capacity in November 1975 by sending a short questionnaire to each of the three hundred brickworks in Great Britain. Previous surveys were held in 1967 and 1970.

Apart from questions specifically directed towards establishing current and future levels of brick making capacity, the survey includes a few simple questions on such related topics as the type of production process, the age of equipment now in use, and the numbers employed.

The results of the survey will be available in 1976 and full details will be published in *Housing and Construction Statistics*.

Reference

Housing and Construction Statistics (HMSO) (Price £1·40 net).

AGRICULTURE

Output and utilisation of farm produce in the United Kingdom

The Ministry of Agriculture, Fisheries and Food has recently published the latest booklet in the above series, covering the farm years 1968/69 to 1973/74 inclusive. Besides the usual statistical information about the output of farm produce and the supply and usage of feedingstuffs and fertilisers, this edition includes, for the main crops, figures of total supplies and their utilisation. This makes the publication more comprehensive and, it is hoped, likely to be more useful to all concerned with the farming industry. Copies are available from:

MAFF (Publications),
Government Buildings,
Tolcarne Drive,
Pinner,
Middlesex HA5 2DT.

Price £2·00 (or £2·11 by post) cash with order.

Agricultural censuses and surveys

The December 1974 Agricultural Census

The glasshouse results from this census in England and Wales were published in a Statistical Information Notice on 28 July 1975 (1).

The June 1975 Agricultural Census

The provisional results of this census in England and Wales were published in a Press Notice, on 1 August 1975 (2).

Compared with June 1974, they show an increase in the barley acreage. There were decreases in wheat, oats, mixed corn, and in the total cereals acreage, with a corresponding increase in bare fallow. There was a small decrease in the area of fodder crops planted by 2 June, a fall in beans for stockfeeding being largely offset by maize cut green and other fodder crops. The areas under potatoes and horticultural crops decreased. The dairy herd decreased, and the beef herd increased compared with June 1974; the number of calves under one year old decreased. The total pig breeding herd was smaller than in June 1974, and within this total, the number of gilts also fell. The numbers of breeding ewes (including shearlings) and lambs decreased. The egg-laying flock, growing pullets, breeding fowls, broilers, turkeys, ducks and geese all decreased compared with June 1974.

The provisional results of the June census in the United Kingdom were published in a Statistical Information Notice on 18 August 1975[3].

References

(1) Statistical Information Notice (Stats. 192/75) issued by The Ministry of Agriculture, Fisheries and Food.

(2) Press Notice No. 253 issued by The Ministry of Agriculture, Fisheries and Food.

(3) Statistical Information Notice (Stats. 215/75) issued by The Ministry of Agriculture, Fisheries and Food.

Agricultural statistics in Northern Ireland

The *Statistical Review of Northern Ireland Agriculture 1973-74* was published in September by the Economics and Statistics Division of the Department of Agriculture Northern Ireland. This edition incorporates a new format of presentation designed to improve the ease of use for the reader and to allow greater flexibility in the coverage of the text.

The tables have been grouped together and are preceded by an account of the major features of, and trends in, Northern Ireland agriculture in the most recent year for which statistics are available. The text includes a review of Northern Ireland agriculture in the year June 1973-May 1974, a preview of the year 1974-75 and a note on recent structural changes.

While many tables have been carried forward from previous *Statistical Reviews*, a number of new tables have been included, for example a table of Numbers of dairy and beef cows by breed, a table giving the Structure of holdings at June 1974, and published for the first time, a table showing Transfers of land from agricultural use.

Reference

Statistical Review of Northern Ireland Agriculture 1973-74 with Output Forecasts for 1974-75
Economics and Statistics Division,
Department of Agriculture Northern Ireland,
Belfast,
BT4 3SB
1975 (free on request).

Agricultural statistics published by SOEC

The Ministry of Agriculture, Fisheries and Food provides the Statistical Office of the European Communities with a large and varied amount of United Kingdom statistical data for inclusion in their Eurostat series of publications. For the most part, statistics are given on a comparable basis for each of the nine member countries. Some of the main publications and a brief description of their contents are shown below. Copies are available from: Office des Publications, Officielles des Communautés Européennes, Boîte postale 1003, Luxembourg.

Publication	*Contents*
Yearbook of Agricultural Statistics	Agricultural and forestry accounts Structure statistics Production (area and yields) of crops and livestock Balance sheets Selling prices and indices
Agricultural Prices	Fruit, vegetables, cereals and wine Feedingstuffs, fertilisers and fuel oils used in agriculture Seeds Anti-parasite products
Crop Production	Horticultural and agricultural crop reports Orchard fruit survey results Supply Balance Sheets for: Potatoes Sugar beet Sugar Molasses Fruit and vegetables Wine
	Products of arable land Area, yield and production tables for main crops Areas sown and production of main crops Deliveries and stocks of cereals and potatoes Meteorological reports and temperature tables
Eggs	Hatcheries statistics
Milk	Milk and milk products production tables
Meat	Slaughterings Meat production
Sugar	Balance sheets Imports and exports

DISTRIBUTION AND OTHER SERVICES

New Business Monitors in the Service and Distributive series

Since the last issue of *Statistical News*, four new Business Monitors have been added to those available in the Service and Distributive series. The reference numbers and titles are:

SD11 Report on the Census of distribution and other services 1971. Part 2 – Area tables: Scotland. (Price £1·70).

SD12 Report on the Census of distribution and other services 1971. Part 3 – Area tables: Wales. (Price £1·20).

SD18 Report on the Census of distribution and other services 1971. Part 9 – Area tables: S W Region. (Price £1·20).

SD24 Motor Trades 1972. (Price 80p).

The new Monitors are available on standing order from:

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

or can be purchased separately from Government bookshops or through booksellers.

Northern Ireland census of retail distribution and other services for 1975

Pre-census operations are now well in hand to undertake the second census of retail distribution and other services in respect of 1975. The first census was in 1965.

A register of retailers is being compiled by the Statistics and Economics Unit, Department of Finance and this will be used by the Department of Commerce, which is responsible for taking the census, as a mailing list for issuing statutory forms in January 1976.

The questionnaire will be similar to that used in the 1971 Great Britain Census of Distribution. The scope of the retail trades will be the same as that in Great Britain. In the case of the service trades, the coverage will be somewhat wider as all catering services including hotels, boarding and guesthouses will be covered, at also will motor car distributors, repairers and petrol stations.

The first results from the census should be available in 1977.

TRANSPORT

Index of traffic and transportation surveys

An index of traffic and transportation surveys carried out in Great Britain has been compiled by the Department of the Environment as a reference source for people or organisations interested in various aspects of transportation policy or research.

The index was started several years ago when organisations sponsoring surveys were asked to complete a detailed questionnaire covering the subject matter of research for each survey. The index was updated in 1973 and details of over 1,000 surveys are currently held on microfilm.

Full details of the surveys are available upon application to the Department. If the identification of surveys covering particular topics or using particular techniques in sampling or analysis is of interest then it is possible to isolate such surveys by using an 'optical feature card' system which scans the file of records for surveys having the relevant features. A list of the main feature headings is given below.

Section A. General information
Type of survey
Area covered
Dates of fieldwork
Size of sample
Size of population
Sampling technique
Geographical zone codes
Zoning system
Number of businesses
Type of businesses
Method of analysis
Tabulations
Form of storage for basic data
Programming language used
Availability of reports
Further studies

Section B. Surveys of vehicle movements
Traffic volumes
Transportation inventories
Speed of flow
Public passenger transport
Freight transport fleets
Vehicle classifications
Vehicle movements

Section C. Surveys of person movements
Where and how information was obtained
Mode of transport
Journey purpose
Times of journeys
Cost of journeys
Origin and destinations
Additional data

Section D. Surveys of freight movements
Commodity classification
Individual freight consignments
Other details of journey
Pipelines
Air
Inland waterways
Coastal shipping
Non-coastal shipping
Road
Rail

Section E. Parking surveys
Facilities
Type of parking
Characteristics (duration, usage, etc.)
Operation (public/private)
Survey method

A summary listing of the surveys held in the index is to be published in the Department of Environment Headquarters Library Information Series No. 21 and will be free of charge.

Further details concerning the index, can be obtained from

Headquarters Library Research Section,
2 Marsham Street,
London,
SW1P 3EB
(01-212 4328).

Financial Results – UK Airlines 1968-1974

In September there appeared the first of a series of reports on the financial results of United Kingdom airlines, which will be published annually by the Civil Aviation Authority.

Estimates are presented in summary form of the profit and loss accounts, appropriation accounts and balance sheets of the public and private sectors of the industry for the years 1968–1973, together with an estimated profit and loss account for the entire industry in 1974. The figures for the years 1968–1971 are based on the tables previously published in the Department of Trade and Industry Business Monitor series CA8.

The summaries for 1972 and 1973 have been built up from returns submitted by the larger individual airlines. The smaller operators, defined as those who have a sole-use licence and no other class of licence, or who operate under an Air Operator's Certificate only, are not required to report financial statistics, but the summaries include estimates in respect of their operations. Estimates have also been included in respect of companies which have gone out of business during the period and for whom it has not been possible to obtain detailed accounts.

The 1974 profit and loss account summary has been based on quarterly returns supplied by the reporting airlines for the four quarters of 1974. The final audited accounts of airlines may differ appreciably from the sum of quarterly profit and loss accounts. The quarterly returns are usually not audited, and often the sum of monthly management accounts. The estimate for 1974 represents the calendar year, whereas the previous years given in the summary, are the addition of financial years closest to the calendar year.

The individual airline statistics given are a copy of information supplied by airlines on the standard returns. The figures may not correspond with published company accounts, since where possible, non-airline activities have been excluded.

The airlines whose financial statistics are covered in this document had in 1974 an average labour force of 67,000, of which nearly 9,000 were employed overseas. An estimate of the net output of these airlines indicated that they represented approximately one half per cent of United Kingdom gross domestic product.

HOME FINANCE

Inflation accounting

The report of the Inflation Accounting Committee was published on 4 September. The Government is studying the Committee's findings and, after taking account of the views of the appropriate bodies, hopes to make a statement on the main recommendations early in the new session of Parliament.

The Committee recommended that an accounting system to be known as Current Cost Accounting should in future become the basis of companies' published accounts. The principal features of this system are:

(i) The accounts should continue to be drawn up in terms of monetary units (pounds).

(ii) The accounts should show the 'value to the business' of the company's assets at the balance sheet date.

(iii) Profit for the year should consist of the company's operating gains, and should exclude all holding gains. Extraordinary gains may be shown as profit but should be distinguished from operating gains.

(iv) Accounts drawn up in this way should become the basic published accounts of companies. In addition the net book value of assets and depreciation for the year on a historic cost basis should be shown in notes to the accounts.

The 'value to the business' of any asset owned by a company is defined as the loss the company would suffer if it were deprived of the asset. The Committee said that in the great majority of cases this is equal to the amount it would cost the company to replace the asset in its existing condition. It would therefore normally be appropriate to value assets in the balance sheet by reference to their current replacement cost (allowing for depreciation where appropriate), taking any holding gains arising to a fixed asset revaluation reserve. Property assets should be independently valued at regular intervals. In order to assist in the task of valuing other fixed assets, the Committee recommended that the Government Statistical Service should make available a series of price indices for capital expenditure on plant and machinery specific to particular industries. Companies should use these indices unless they have reason to believe that a more precise valuation can be achieved by other means.

The Committee recommended that the figure for depreciation in the profit and loss account should be a proportion of the 'value to the business' of assets as shown in the balance sheet, rather than a proportion of their cost.

In order that profit for the year should exclude holding gains on stocks, the Committee recommended that stock appreciation should be removed from the profit and loss account and taken to a reserve. This would be done by making a 'cost of sales adjustment' in the profit and loss account, designed to ensure that this account is debited with the 'value to the business' of stock at the time it is consumed, not with its historic cost. In the majority of cases a sufficiently precise adjustment may be calculated by charging the quantity of stock consumed at the average purchase price of stock during the year. In order to assist this calculation, the Committee recommended that the Government Statistical Service should make available a series of price indices for stocks purchased by specific industries.

The Committee recommended that a Steering Group should be set up to supervise the introduction of Current Cost Accounting. This recommendation went on. . . . 'We recommend in particular that a representative of the Government Statistical Service should be co-opted to advise on the preparation of the official price indices and to co-ordinate with the Steering Group the publication of the initial series of indices and the subsequent expansion and refinement of them'.

Reference:
Report of the Inflation Accounting Committee (Cmnd 6225) (HMSO 1975) (Price £4·25).

Survey of shareholdings in companies

The Department of Industry will be conducting a survey of the share registers of United Kingdom companies listed on the Stock Exchange to estimate the distribution of their ordinary shares, in terms of market value, between categories of holder. The survey will distinguish between holdings by individuals, non-profit making bodies, various types of financial institution, industrial and commercial companies, the public sector and the overseas sector. Previous surveys of this type have been conducted by the Department of Applied Economics Cambridge University; one investigated the distribution of shareholdings on 31 December 1963; the most recent investigated the distribution on 31 December 1969. The new survey by the Department of Industry will investigate the distribution on 31 December 1975.

This project is part of the inter-departmental programme for the improvement of financial statistics. It will contribute to the compilation of national and sector balance sheets as well as giving basic information about who provides finance for companies by way of investment in ordinary shares.

An important consideration in any analysis of shareholdings by category of holder is the problem of analysing nominee holdings. In the 1963 and 1969 Cambridge surveys, nominee holdings were estimated to account for about one fifth of the total market value of the ordinary shares of all United Kingdom listed companies. In the 1963 survey, the principal banks, which control most of the important nominee companies, analysed a sub-sample of their nominee holdings, the aggregate results of which were used as an estimate of the general allocation of nominee holdings to beneficial categories. This was not repeated in the 1969 survey but in the new survey it is hoped to provide an analysis by beneficial holder.

Structure of company finance

An article in the September issue of *Economic Trends* presents an analysis of the sources and uses of funds of industrial and commercial companies in aggregate. It describes the changes over the last decade in the main sources of finance and in the main uses of funds to purchase fixed assets, stocks, additions to working capital and other forms of investment. The article also gives an outline of the statistical information available and discusses the major problems encountered in using the information.

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

New banking statistics

The Bank of England's September 1975 Bulletin contains tables which incorporate a new series of banking statistics. The changes were described in an article in the June 1975 Bulletin.

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

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

OVERSEAS FINANCE

United Kingdom Balance of Payments 1964-74

A detailed account of the United Kingdom's balance of payments with the rest of the world in each of the last eleven years is given in *United Kingdom Balance of Payments 1964-74* (Pink Book) which was published by Her Majesty's Stationery Office on 3 September 1975 price £2·00. This complements the monthly and quarterly estimates with up-to-date and more detailed annual figures particularly for invisible transactions and investment flows. The tables are followed by annexes, illustrating certain aspects of the balance of payments which do not emerge from the standard form of presentation, and by detailed descriptions of the definitions, sources and methods employed in the accounts. In addition various new geographical analyses are shown in the different parts of the account, with the European Communities and the oil exporting countries being particularly featured, and a new annex brings together all the former set of figures in order to give a broad indication of our overall balance of payments with the European Communities. The figures in this annex are necessarily accompanied by notes drawing attention to the shortcomings of these estimates, which must be borne in mind when using and interpreting them.

Reference
United Kingdom Balance of Payments 1964-74 (HMSO) (Price £2·00 net).

FORM FILLING

Simplification of export entry forms

At the beginning of 1976, HM Customs and Excise propose to introduce a new simplified export entry form for use by exporters and their agents when submitting entries for items valued under £100. This change is made possible by the decision to collect less detailed information about these low value items. It is expected that there will be a worthwhile saving of effort in form filling since over 20 per cent of all the total number of all items exported from the United Kingdom fall into this low value category, although they account for only a fraction of 1 per cent of the total value of exports.

Further details and copies of the new form, C273 (LV), will be available from local customs offices around the turn of the year.

A corresponding simplification of the import entry form has not yet proved possible because some of the detailed information is required for administrative use.

Surveys assessed by Survey Control Unit

The number of surveys assessed during the third quarter of 1975 is shown in the table below. A brief article in *Statistical News* (21.15) described the gradings used.

Surveys assessed during 3rd quarter 1975

Type of survey	*Initial grading*					*Total*
	Un-recog-nised	*Under con-sider-ation*	*Provi-sionally recog-nised*	*Fully recog-nised*	*No grading given*	
Small *ad hoc*	1	7	34	46	5	93
Other *ad hoc*	2	2	5	15	3	27
Continuous	–	1	–	2	2	5
Total	3	10	39	63	10	125

Whilst this total is 18 per cent less than the number assessed during the third quarter of 1974, the difference is almost entirely because of the smaller number of existing surveys seen. This is partly because of the work involved in computerising our records, described elsewhere in this issue. Of the 125 surveys seen, 104 were new studies, mostly of an *ad hoc* nature; most government departments launched at least one new survey during the quarter.

The three unrecognised surveys emanated from different departments. One has been subsequently amended, one at the time of writing is still pending discussions and one was proceeded with and found acceptable by respondents. Half of those under consideration have been subsequently cleared.

PUBLICATIONS

National Institute Economic Review

Recent issues of the *National Institute Economic Review* have included articles on the effects of tariff changes on United Kingdom imports (in May) and on technological progress in the British gas industry and the use of Department of Industry and Confederation of British Industry surveys in forecasting investment (in August).

In the May article ('Tariff reductions and United Kingdom imports of manufactures: 1955-71' by Mrs A. D. Morgan assisted by Mrs D. Martin) indicators of average United Kingdom tariffs on semi-manufactures and finished goods were incorporated into a regression of the volume of imports on demand, relative import prices and tariffs. The indicators were treated in alternative ways to determine whether there was a tariff elasticity independent of the price elasticity. The results suggest that in general the elasticities are identical, at about –1.55 to –1.60. However they provide some evidence in the case of finished goods of a big once-for-all reaction to the Kennedy Round of tariff reductions in 1968, possibly because a large number of duties had previously been at near prohibitive levels.

The article dealing with 'The innovation process in the gas industry' by G. F. Ray and D. T. Jones used developments in the industry to illustrate the complexities of the innovation process and the variety of factors which may typically be involved in bringing it to fruition. The industry's 19th century growth, its subsequent decades of near-stagnation and its emergence in the 1960s as the leading growth industry in the United Kingdom provided a background for the analysis of the major innovations and new departures (coal and oil gasification, transportation and distribution of natural gas, etc.)

The article on investment forecasts, 'Interpreting the investment intentions data' by D Savage, suggested that the surveys have not predicted investment particularly well. It added, however, that, as much the same might be said of the Institute's econometrics methods, the intentions data should be given considerable weight so long as investment behaviour was likely to be influenced by factors, such as the squeeze on company liquidity and profitability and uncertainty over proposed government policy, which were not experienced in the period over which the econometric relationships were estimated.

The Review is available from:

National Institute of Economic and Social Research
2 Dean Trench Street,
Smith Square,
London
SW1P 3HE.

Reference
National Institute Economic Review (Quarterly) The National Institute of Economic and Social Research (Price £1·75 including postage).

Regional Statistics, No. 11 1975

Regional Statistics is the new title for the publication previously known as the *Abstract of Regional Statistics.* It will be published at the end of November. It has been compiled by the Central Statistical Office in collaboration with the Statistics Divisions of Government Departments to present a fairly detailed, quantitative picture of regional variations over the country across a broad range of topics, social, demographic and economic. It goes some way to meet the needs of regional planners, marketing managers and the many others who have regional interests.

The publication comprises fifteen sections, each dealing with a topic such as education, health and employment. A new social characteristics section has been introduced incorporating new tables as well as some that had previously appeared in other sections. The social services section has been expanded to contain tables on personal and local authority social services and child care. Some diagrams have been included in the main body of the tables for the first time.

All sections this year are preceded by introductory notes which give further explanations on sources and definitions for the tables.

This year's edition continues the regional profiles that were introduced last year. The profiles are seen as a contrast to the main body of the volume where comparisons of individual measures across the regions of England and Wales, Scotland and Northern Ireland are shown. They provide a selection of statistics for each region separately. Each profile has a key indicators section giving a series of statistics for the region including comparisons with the equivalent figures for the United Kingdom where available. This year's topic for detailed presentation is income, investment and output, and includes estimates published for the first time.

Following the reorganisation of local government and the setting up of new counties in England and Wales on 1 April 1974, the boundaries of the standard regions were adjusted to be consistent with those for the new local authority areas. Figures are included for the longest runs of years available on the new (at 1.4.1974) regional boundaries; where figures are shown for the old (at 31.3.1974) regions they are printed in italics. A map illustrates how these boundaries changed on 1 April 1974.

An index of further sources is also included.

Reference
Regional Statistics, No 11 1975 (HMSO) Forthcoming.

GOVERNMENT STATISTICAL SERVICE

Appointments and changes

Central Statistical Office

Mr T. S. Pilling, Assistant Director (Under Secretary) Central Statistical Office has transferred to the Department of Industry, to head Economics and Statistics Division 5.

Mr W. B. Wakefield, Chief Statistician, Central Statistical Office, has been promoted to Under Secretary, (Assistant Director), Central Statistical Office.

Mr R. M. Norton, Chief Statistician, Central Statistical Office, has transferred to the Department of Industry, Business Statistics Office, Branch 6.

Mr J. A. Rushbrook, Chief Statistician in the Department of the Environment transferred to the Central Statistical Office on 1 November to fill the vacancy in Branch 8.

Department of the Environment

Mr R. F. Sellwood, Statistician, Department of Industry, was promoted to Chief Statistician on transfer to the Department of the Environment. Mr Sellwood will head Statistics TG Division in place of Mr Rushbrook.

Department of Employment

Mr R. E. Fry, Chief Statistician, Department of Employment has been promoted Under Secretary, on transfer to the Department of the Environment as Director (Economics and Statistics), Transport.

Mr D. W. Flaxen, Statistician, Department of Employment, has been promoted to Chief Statistician, in the Department of Employment Branch B.

Mr H. Collings, Statistician in the Department of Employment, has been promoted to Chief Statistician on transfer to the Department of Education and Science to replace Mr Goatman.

Department of Education and Science

Mr G. M. Goatman, Chief Statistician, Department of Education and Science, has transferred to the Price Commission to fill an Assistant Secretary post.

Scottish Education Department

Mr J. R. Howe, Chief Statistician in the Department of Industry, will transfer to the Scottish Education Department on 1 December to fill a new post at this level.

Department of Industry

Mr W. E. Boyd, Statistician in the Department of Industry, is being promoted to Chief Statistician with effect from 1 December and will succeed Mr Howe as Head of EcS 3, Branch E.

Retirement

Mr T. Paterson, Department of Industry, Head of Economics and Statistics Division 5.

LATE ITEMS

Many girls do not make full use of educational opportunities

A survey entitled *Fifth form girls: their hopes for the future*, published in September shows that there are still many girls who are not making full use of the educational opportunities for which their abilities would suit them. Carried out by the Office of Population Censuses and Surveys on behalf of the Department of Education and Science, the survey [1] reveals that given the same level of ability, girls from 'privileged' homes are more likely than others to make full use of the educational opportunities available. Daughters of poorly educated parents particularly if their parents do little to encourage them, are likely to set their sights much lower than their abilities would warrant. The effect of the home background is apparent, irrespective of the type of school attended.

The sample for the survey was drawn from girls who completed the fifth form year at a maintained secondary school in July 1971, when they would be about 16 years old; interviewing took place in 1972.

The purpose of the survey was to find out what factors are associated with the failure of some girls to pursue their education as far as their abilities warrant. The authors point out that the findings have considerable relevance in the light of the current anti-discrimination legislation, commenting that 'equal opportunities will be worthless if girls reject them'.

Reference

(1) *Fifth Form Girls: Their Hopes for the Future* by Irene Rauta and Audrey Hunt. (HMSO) (Price £3·30 net).

United Kingdom mineral statistics 1975

United Kingdom Mineral Statistics 1975 is the third edition of the most comprehensive collection of facts available on mineral production, trade and consumption in this country. It contains information generously supplied by companies, trade associations and government departments – including preliminary results of the Annual Minerals Inquiry conducted by the Business Statistics Office – as well as from the Institute's own records.

In addition to updating all the statistics previously given by a further year's figures a number of new features have been introduced. These include detailed production analyses by end-uses for major minerals such as limestone and dolomite, igneous rock, sandstone, special sands, chalk, clay and shale, gypsum, and anhydrite; mineral production for the two latest years in the new county areas of England and Wales; additional historical production series for chalk and slate from 1895; and tables indicating the pattern of supply of major non-ferrous metals in 1973 and 1974.

Reference

United Kingdom Mineral Statistics 1975 Published for the Institute of Geological Sciences by HMSO (Price £6·50 net).

Two-parent families receiving the Family Income Supplement in 1972.

A study of two-parent families who were receiving the family income supplement in 1972 was recently published in the Department of Health and Social Security series of statistical and research reports.

The authors I. B. Knight B.Sc (ECON) and Mrs J. M. Nixon MA, define the general aims of the study as 'to enquire into the financial and material circumstances of two-parent families receiving a Family Income Supplement.' They also list subjects on which the survey is designed to provide information. Included in these are the effects of different levels of housing costs and the net effect of the Family Income Supplement, and associated benefits, on the living standards of recipient families.

A sample of eight hundred families who were receiving the supplement in July 1972 was approached by letter. Of these 13 per cent declined to participate in the survey. Interviews were held with 614 respondents, an overall response rate of 77 per cent.

The report begins with a profile of married men who are receiving the supplement. The next chapter discusses the needs and resources of families receiving the supplement. There follows more detailed studies of relevant themes; housing, jobs held by recipients, earnings from employment and managing on a limited income.

Some seventy tables and over twenty diagrams show analyses of family size, housing costs, employment past and present, and many of the reason givens for decisions which have contributed to the needs and resources of the recipient families.

Reference

Two-parent families in receipt of Family Income Supplement - 1972. Department of Health and Social Security Statistical and Research Report Series No 9 (HMSO) (Price £4·60 net).

List of Principal Statistical Series and Publications

1974 EDITION

Amendment list no. 5 — July to September 1975

Introductory note

The *List of Principal Statistical Series and Publications*, first published in 1972, has been revised. In the 1974 edition, published in November 1974 (HMSO Price 80p net), it is stated that details of important amendments and additions to the list will appear quarterly in *Statistical News* thus enabling users to keep their copies up to date. Accordingly a list of amendments, covering the period from July to September 1975 is given below. Off-prints of this list can be obtained from the Central Statistical Office, Telephone: 01-233 8234.

Amendments to Part 1. List of Principal Series

Production industries

Page

1. The Census of Production and indexes of industrial production 12

(a) Census of Production

Last paragraph, line 2

Delete from 1968 to the end of the paragraph

Insert: '1972 are now available and provisional results for the 1973 census are available from the Department of Commerce, Northern Ireland'.

Financial and Business Statistics

4. Banking

(b) Assets and liabilities of the banking sector 26

Delete text and substitute the following:

There are monthly and quarterly tables in the first two publications for the banking sector as a whole (comprising all banks in the United Kingdom together with the National Giro, the discount market and the banking department of the Bank of England). Separate monthly figures are given for the London clearing banks, Scottish clearing banks, Northern Ireland banks, accepting houses, other UK banks, American banks, Japanese banks, other overseas banks, the consortium banks and (in *Financial Statistics*) the National Giro. All the monthly tables are at common (mid-month) dates. Further tables, also at mid-month dates, give the eligible liabilities, reserve assets, reserve ratios, and special and supplementary deposits for the individual groups of banks (and finance houses), and borrowed funds, total assets and undefined assets multiple of the discount market. The *Monthly Digest of Statistics* reproduces the figures for the assets and liabilities of all banks (with a separate analysis of the London clearing banks) and the discount market, also the eligible liabilities, reserve assets, reserve ratios, and special and supplementary deposits for banks and finance houses and the undefined assets multiple for the discount market. Changes to the series are described in an article in the June issue of the *Bank of England Quarterly Bulletin.*

(c) Deposits 26

Delete text and substitute the following:

UK residents' deposits with the banking sector at the end of each calendar quarter are analysed by the type of currency and by sector (central government, local authorities, public corporations, other financial institutions, companies and persons). Deposits with banks in the United Kingdom at mid-month dates are analysed by type of currency (sterling and other) and depositor (UK banks, other UK residents and overseas residents) for each group of banks.

(d) Bank advances

Delete first two sentences of text and substitute the following: There are two quarterly analyses. Lending by the banking sector at the end of each calendar quarter is analysed by type of currency and by sector (see (c) above). Advances to UK residents by all banks at mid-February, May, August and November are analysed by 25 industry and service groups.

External Trade

1h. External liabilities and claims of UK banks in overseas currencies 30

Add to text:

From December 1974, a bank/non-bank division of liabilities and claims is given.

After sub-heading (k) add the following new sub-heading

1. Maturity analyses of foreign currency business	Quarterly	*Bank of England Quarterly Bulletin*

Analyses of the foreign currency business of banks and certain other financial institutions in the United Kingdom.

Amendments to Part II. List of Publications

Page 33

Analyses of Hospital running costs, related income and statistics (N Ireland)
Delete (31/3/72) Substitute (31/3/73)

Annual Report of the Registrar General in N. Ireland
Delete £1·50 (1972) Substitute £2·45 (1973)

Appropriation Accounts
Delete £2·20 (1972-73) Substitute £3·90 (1973-74)

British Labour Statistics: Year Book
Delete £7·20 (1971) Substitute £12 (1973)

Page 38

Delete symbol (4) against Business Monitors PA211, 216, 229.1, 232, 239.1, 274, 275, 277, 278, 279.1, 332, 333, 336, 338

Page 39

Delete symbol (4) against Business Monitors PA 351, 361, 383, 411, 412, 414, 418, 419, 422.2, 429.2

Page 40

Delete symbol (4) against Business Monitors PA 431, 432, 442, 449.1, 450, 469.1, 472, 473, 479, 481, 483, 482.2, 484.2, 492, 494.3, 495

After **SD9 Computer Services** Add the following new entries:
SD11 Part 2 Area tables, Scotland £1·70
SD12 Part 3 Area tables, Wales £1·20
SD18 Part 9 Area tables, South West Region £1·20

Page 41

After **Census 1971 England and Wales Availability of Cars** Add the following new entries:

Census 1971 England and Wales Migration Regional Reports (10% sample) East Anglia Part I £2·10	Office of Population Censuses and Surveys
Census 1971 England and Wales Migration Regional Reports (10% sample) East Midlands Region Part I £2·75	Office of Population Censuses and Surveys
Census 1971 England and Wales Migration Regional Reports (10% sample) North Region Part I £2·85	Office of Population Censuses and Surveys
Census 1971 England and Wales Migration Regional Reports (10% sample) North West Region Part I £4·55	Office of Population Censuses and Surveys
Census 1971 England and Wales Migration Regional Reports (10% sample) South West Region Part I £2·95	Office of Population Censuses and Surveys
Census 1971 England and Wales Migration Regional Reports (10% sample) Wales Part I £3·30	Office of Population Censuses and Surveys
Census 1971 England and Wales Migration Regional Reports (10% sample) Yorkshire and Humberside Region Part I £3·70	Office of Population Censuses and Surveys
Census 1971 Great Britain Economic Activity Part II Add: Part III (10% sample) £7·65	Office of Population Censuses and Surveys

After **Census 1971 England and Wales Migration Regional Report, Yorkshire and Humberside** add:

Census 1971 England and Wales Part I (10% sample) Household Composition Tables £4·55	Office of Population Censuses and Surveys

After **Census 1971 Scotland County Reports** Add:

Census 1971 Scotland Fertility Tables Part I (100%) £5·85	General Register Office, Scotland

After **Census 1971 Scotland Migration Tables Part I** Add:

Census 1971, Scotland Migration Tables Part II (10% sample) £2·80	General Register Office, Scotland

After **Census 1971, Report on the Welsh Language** Add:

Census 1971, Wales, Summary Tables £4·90	Office of Population Censuses and Surveys

Census of Population, N Ireland
Delete 1966 N Ireland General Report £1·50
Substitute 1971 N Ireland Summary Tables £1·90
Delete Preliminary Report 30p
Substitute County Report – Antrim £1·12; Armagh 85p; Down £1·20; Fermanagh 63p; Tyrone 85p; County and County Borough of Londonderry 90p; Belfast County Borough 90p.

After **Civil Appropriation accounts** Add new entry:

CAA Annual Statistics (1973) £4·00 Annual Civil Aviation Authority

Civil Service Statistics
Delete 75p (1973) Substitute £1·10 (1974)

Economic Trends
Delete 85p Substitute £1·15

Page 42

Family Expenditure Survey Report (N Ireland)
Delete 68p (1972) Substitute 98p (1973)

Financial Statements (N Ireland)
Delete 18½p (1972-73) Substitute 15p (1974-75)

Financial Statistics
Delete £1·30 Substitute £1·85

Housing and Construction Statistics
Delete £1 Substitute £1·40

Local Authority Financial Returns (N Ireland)
Delete £1·05 (1971-72) Substitute £1·35 (1972-73)

Monthly Digest of Statistics
Delete 85p Substitute £1·20

Page 43

National Income and Expenditure
Delete 85p (1973) Substitute £2·20 (1964-74)

N I insurance Fund – Accounts (N Ireland)
Delete 18½p 1970-71 Substitute 20p 1972-73

Overseas Trade Statistics
Delete £2·50 Substitute £3·50

Population Projections. Add following new entry:

Population Trends Quarterly Office of Population Censuses and Surveys 2, 4, 6.

Post Office Reports and Accounts
Delete £1·60 (1973-74) Substitute £1·80 (1974-75)

Report of the Registrar of Friendly Societies (N Ireland)
Delete 18½p (1972) Substitute 26p (1973)

Page 44

Report on sea and inland fisheries
Delete 21p (1972) Substitute 29p (1973)

Report on the Administration of Home Office Services N Ireland
Delete entry

Report on the Census of Production N Ireland
Add new entry:

Report on the Censuses of Production N Ireland
(1971-72 – single volume) 92p

Scottish Economic Bulletin
Delete 71p Substitute 90p

Scottish Health Statistics
Delete £2·45 (1972) Substitute £4·60 (1973)

Scottish Social Work Statistics
Delete £1·20 (1972) Substitute £2·30 (1973)

Statistics of Education Volume 4
Delete £1·70 (1971) Substitute £3·65 (1973)

Statistical Review of England and Wales, Supplement on Cancer
Delete £1·30 Substitute £5·20

Page 45

Summary of Health Service Accounts
Delete text Substitute 15p 1972-73

Trading and Other Accounts (N Ireland)
Delete 80p (1972-73) Substitute £1·80 (1973-74)

United Kingdom Balance of Payments
Delete 90p (1973) Substitute £2·00 (1964-74)

Alphabetical Index

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

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

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

Printed in England for Her Majesty's Stationery Office by J. Looker Ltd., 82 High Street, Poole, Dorset. Dd503399 K25 11/75

The Government Statistical Service Display

Available free of charge to suitable organisations

This Display is designed to appeal to a wide audience. To tell people what the GSS is - and what it has to offer.

The Display is available now - free of charge - to suitable organisations. It's intended for use at funtions (conferences, seminars, etc.) attended by people who may be interested in official statistics - or for showing in libraries, universities, colleges, etc.

The display is some 20 feet long overall but can be arranged in several different ways. It's colourful and interesting. And it is backed up with a selection of attractive and informative booklets.

For further details and an application form write to:

J. B. Wright, Principal Information Officer, Central Statistical Office, Great George Street, London SW1P 3AQ.