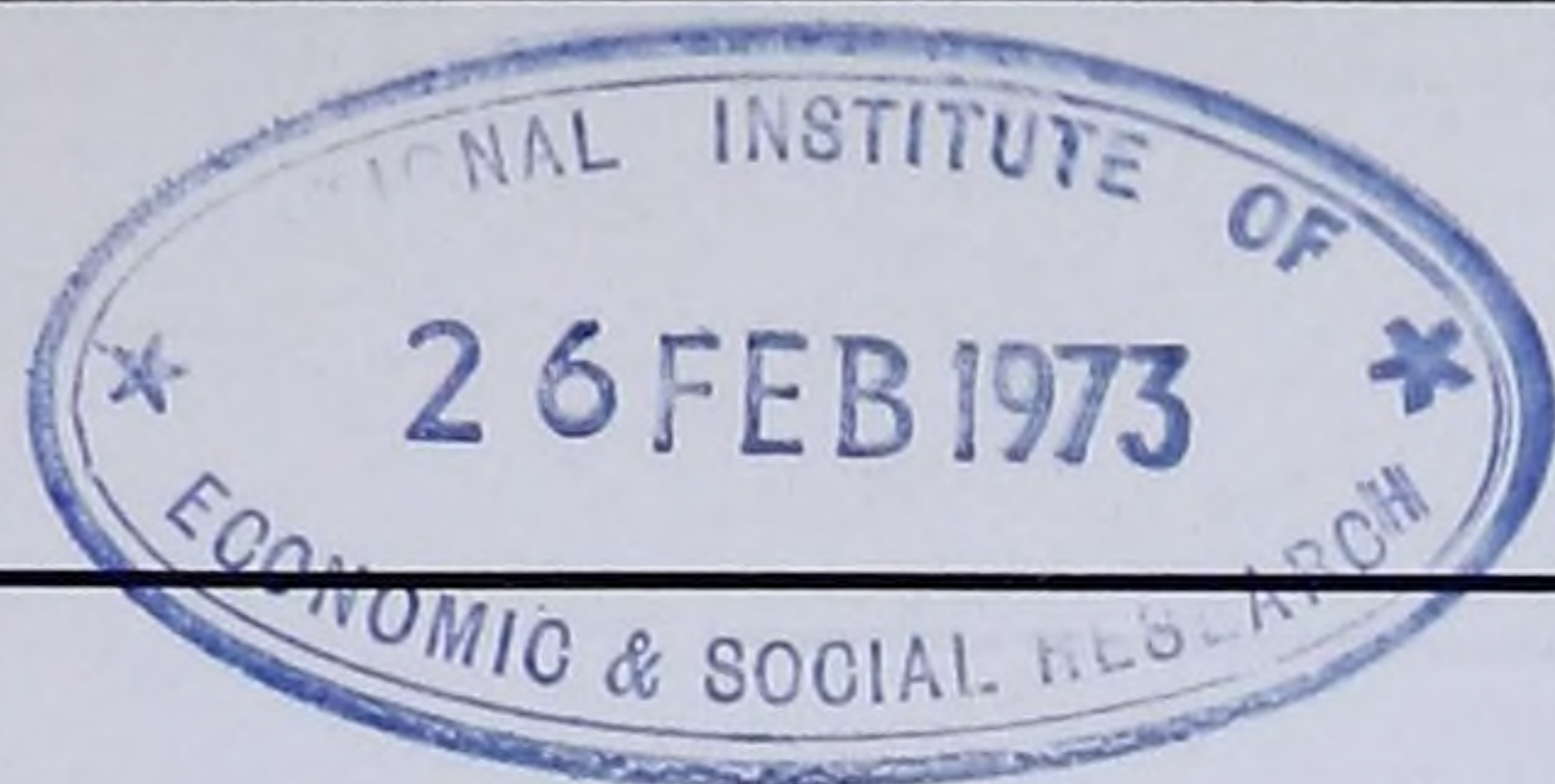


20



CSO

FEBRUARY 1973

HMSO 30p 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 full, cumulative index provides a permanent and comprehensive guide to developments in all areas of official statistics.

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

Enquiries about this publication should be addressed to:  
The Information Officer,  
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

FEBRUARY 1973

---

**Statistical News**

**No. 20**

---

**Developments  
in  
British  
Official  
Statistics**

NOTES ON CURRENT TRENDS

Page

Population and vital statistics	20.21	General
1971 Census, Great Britain	20.22	Population
1971 Census, Great Britain	20.23	Population
1971 Census, Great Britain	20.24	Population
1971 Census, Great Britain	20.25	Population
1971 Census of Population, publication programme	20.26	Population
Population estimates for 1972	20.26	Population
Annual population projections	20.27	Population
1971 Census of Population	20.27	Population
Population census field lists	20.27	Population
Population and vital statistics	20.27	Population
Health and social security	20.27	Health
Health and personal social services	20.27	Health
Occupational pension schemes	20.28	Health
Capacity statistics	20.28	Health
Health insurance supplements	20.28	Health
Maternity allowance	20.28	Health
Grants of exceptional needs payments	20.28	Health
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry
Industry and construction	20.29	Industry

LONDON  
HER MAJESTY'S STATIONERY OFFICE

---

Notes by the Editor  
CENTRAL STATISTICAL OFFICE

## Statistical News

Developments in British Official Statistics

© Crown copyright 1973

Statistical Office  
London

Printed in Great Britain by the Stationery Office

# Contents

FEBRUARY 1973

		<i>Page</i>
Epidemiology and occupational medicine	A. J. Fox	20.1
The Further Education Statistical Record	C. J. Belliss	20.6
Progress of statistical work at the Business Statistics Office	M. C. Fessey	20.12
A national heavy goods vehicle register	T. F. J. Hobson and R. M. Taylor	20.20
Inter-city statistics	Note by the Press and Information Service, Central Statistical Office	20.23

## NOTES ON CURRENT DEVELOPMENTS

	<i>Page</i>		<i>Page</i>
<b>Population and vital statistics</b>		<b>Manpower and earnings</b>	
1971 Census, Great Britain	20.25	Unemployment statistics	20.31
Cohort studies	20.25	Unemployment flow statistics	20.32
England and Wales:		Manpower studies:	
1966 Census of Population	20.25	Catering	20.33
1971 Census of Population, publication programme	20.26	Computers in Offices	20.33
Population estimates for 1972	20.26	Regional earnings	20.33
Regional population projections	20.27	New Earnings Survey 1972	20.33
Scotland:		Earnings surveys during 1973	20.33
1971 Census of Population	20.27		
Population census field tests	20.27	<b>Industrial statistics</b>	
Population and vital statistics	20.27	Recent improvements to the Index of Industrial Production	20.34
<b>Health and social security</b>		Early estimates of vehicle production	20.34
Health and personal social services	20.27	Commodity analysis of the turnover of large retailers	20.35
Occupational pension schemes	20.28	1968 Census of Production	20.35
Incapacity statistics	20.28	Changes in the annual censuses of production	20.36
Family income supplement	20.29	Instrument engineering	20.37
Attendance allowance	20.29	Reorganisation of industrial statistics	20.37
Number of exceptional needs payments	20.30	Business Monitors	20.38
<b>Housing and construction</b>			
Housing surveys	20.31	<b>Transport</b>	
Construction industry – study of cost of completing inquiries	20.31	Road traffic censuses	20.39

	<i>Page</i>
<b>Home finance</b>	
Money stock	20.39
National balance sheets	20.39
Yield curves for gilt-edged stocks	20.39
<b>International</b>	
Aid statistics	20.40
<b>European Economic Communities</b>	
Labour force survey 1973	20.42
Labour costs survey 1973	20.42
Pilot survey of retail prices in London	20.43
<b>Publications</b>	
Social Trends	20.43
Abstract of Regional Statistics	20.43
Public Expenditure	20.44
Inland Revenue	20.44
Customs and Excise	20.45
Classification for Overseas Trade Statistics	20.45
New Business Monitors	20.45
Education Statistics (Northern Ireland)	20.46
National Institute Economic Review	20.46
<b>Government Statistical Service</b>	
New Year Honours, 1973	20.47
Appointments and changes	20.47
<b>List of principal statistical series and publications: amendment list no. 3</b>	
	20.48
<b>Alphabetical index</b>	20.51

# Articles in recent issues of *Statistical News*

## No. 14 August 1971

Survey of handicapped and impaired in Great Britain - The selection of the sample

R. M. Blunden

## No. 15 November 1971

New statistics and the Index of Industrial Production  
The CSO macro-economic data bank  
Statistical forms sent to the construction industry

A. A. Sorrell

L. S. Berman

Note by the Department of the Environment

J. D. Morris

The Inquiry into the Catering Trades for 1969

## No. 16 February 1972

Revised figures  
Future Censuses of Population  
General Household Survey  
Manpower planning  
Preparing for the Census of Distribution  
ISIS - an Integrated Statistical Information System

C. A. Moser

P. Redfern

Louis Moss

J. A. Rowntree

R. W. Makepeace

T. F. Hughes

## No. 17 May 1972

The Survey of Personal Incomes  
Use of official statistics in firms and Profit from Facts  
Post-Census Survey on the Census of Production 1970  
Qualified manpower: statistical sources

F. R. L'Aiguille

P. J. Stibbard

S. R. Curtis

E. G. Whybrew

## No. 18 August 1972

Taking care of soft figures: reflections on improving the accuracy of the GNP  
Food marketing trends in the United Kingdom: some implications for agriculture  
The relative price effect in public expenditure: its nature and method of calculation  
Form-filling: The Report of the Committee of Inquiry on Small Firms  
Developments at Business Statistics Office  
Survey of collections of economic statistics in the United Kingdom

George Jaszi

Dr A. P. Power

P. M. Rees and F. P. Thompson

Note by the Government Statistical Service

R. F. L. Sims

Note by the Committee of Librarians and Statisticians

## No. 19 November 1972

The statistics of value added tax  
The new system of industrial statistics: statistical and computing aspects of the quarterly inquiry  
Reshaping of the agricultural census for England and Wales  
The Universities' Statistical Record

M. R. Noyce

A. D. Cunningham

P. G. Horscroft and C. R. Orton

A. A. Croxford

---

# Epidemiology and occupational medicine

A. J. Fox, *Statistician, Employment Medical Advisory Service,  
Department of Employment*

---

## Introduction

In December 1970 the Department of Employment set up Medical Services Division to co-ordinate the work of the Medical Inspectors of Factories, doctors in Industrial Rehabilitation Units and Government Training Centres and Regional Medical Consultants. The Medical organisation of the Department of Employment was consolidated into the Employment Medical Advisory Service on 1 February 1973.

In order to provide advice and information on a scientific basis the division needs, among other matters, to measure the incidence of occupational disease (including diseases arising in new industries or processes); to monitor, by means of biological measurement, industrial processes and to relate the incidence and type of disease to measurements of exposure; to understand the aetiological mechanisms involved; and to evaluate, if necessary, periodic examinations designed to protect the exposed populations.

To obtain an accurate measure of industrial disease is no mean task even when the disease has been known for some time. In the past crude estimates have been obtained mainly by studying the numbers of cases of industrial disease notified to the Chief Inspector of Factories, by looking at the numbers of cases reviewed by the Pneumoconiosis Medical Panels and by screening programmes in particular industries. These measurements suffer from many deficiencies, primarily caused by the inefficiency of such methods to pick up people who have left the industry concerned. There is frequently a long delay between exposure to the hazard and the subsequent overt medical effect, which makes the task more difficult. Further information has been obtained by surveys of particular industries recording the incidence of disease at a particular point in time. This approach, although often more sensitive than the method of notification of disease, suffers from similar deficiencies. As expectations in relation to health rise, new parameters will need to be developed to identify hitherto unsuspected effects.

This article outlines the fields in which Medical Services Division applies an epidemiological approach

and explains what methods are available and are being developed in order to obtain more accurate measurements. These measurements are used as early indications of the effects of exposure and can possibly provide evidence of value in screening individuals before overt effects appear.

## Government policy and industrial practice

It is important to understand the mechanisms which provide government with a basis for policy and subsequently provide the unions and industry concerned with the necessary information from which an agreement on industrial practice can be reached.

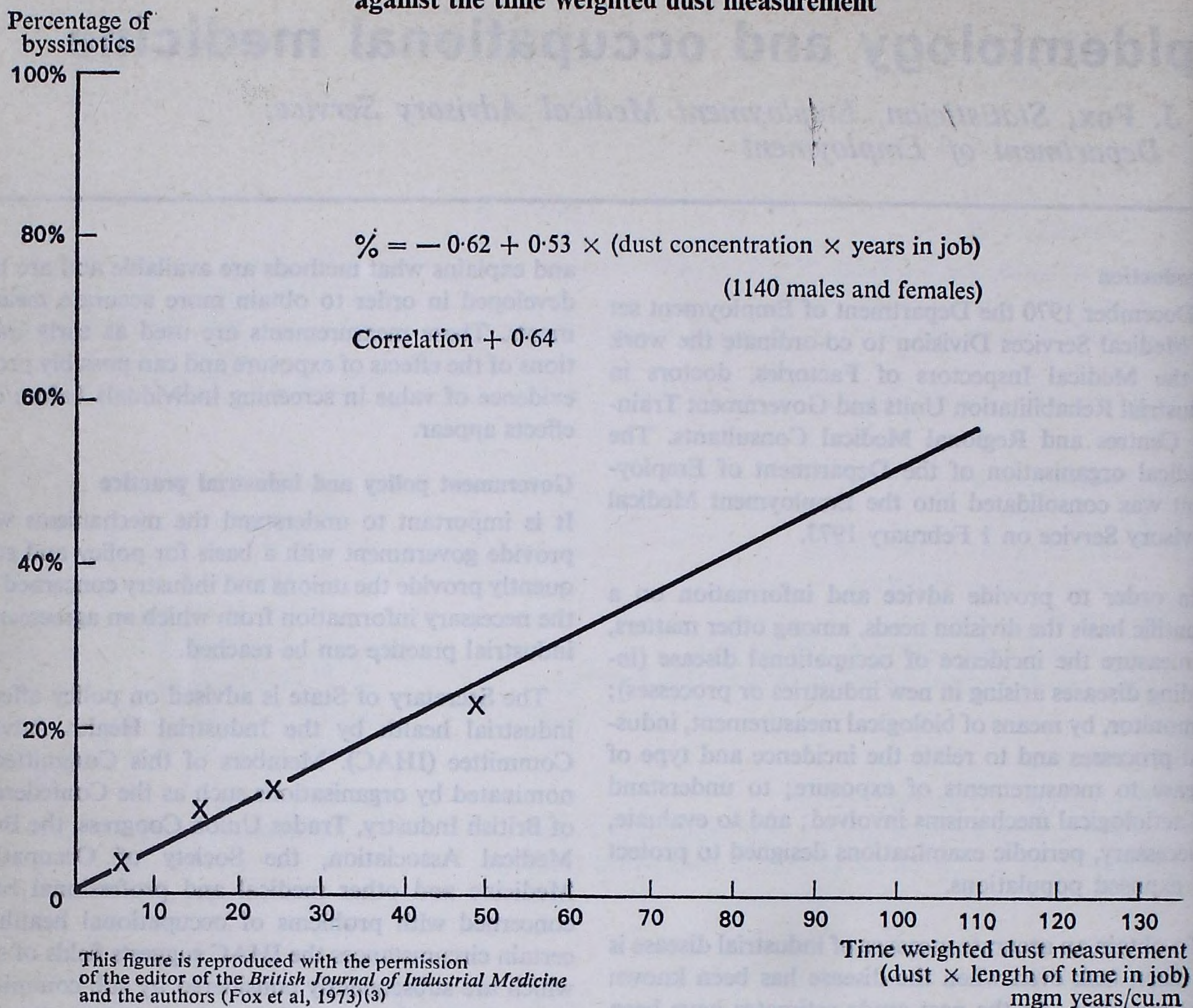
The Secretary of State is advised on policy affecting industrial health by the Industrial Health Advisory Committee (IHAC). Members of this Committee are nominated by organisations such as the Confederation of British Industry, Trades Union Congress, the British Medical Association, the Society of Occupational Medicine and other medical and professional bodies concerned with problems of occupational health. In certain circumstances the IHAC suggests fields of study which are subsequently considered by sub-committees. In particular, the suggestion that respiratory disease in cotton operatives should be explored arose from discussion with the IHAC. The details of how this work was to be done were subsequently discussed with the Joint Standing Committee for that industry. The latter Committee comprises representatives of both sides of industry and of the Department of Employment. To help him with his professional work the Chief Medical Adviser (CMA) of the Department of Employment has a number of Advisory Panels whose members are appointed for their expert knowledge.

Other investigations undertaken by Medical Services Division arise either out of problems encountered in the day to day work of the division or because it seems likely that techniques or knowledge gained in other branches of medicine or science have a useful application. An example of the former is the study of respiratory symptoms and enzyme washing powders(1), and of the latter is the punched disc micro method developed for estimating the lead content of blood from capillary samples (2).



FIGURE 1

The percentage of byssinotics regressed against the time weighted dust measurement



In the example of respiratory disease in cotton operatives, the IHAC thought that two major problems required to be tackled. First, whether or not it was advisable to undertake periodic medical examinations of all cotton workers and if so, the scope and frequency of examinations; and second, the derivation of a scientific basis for a recommendation of an acceptable hygiene standard. Interim reports have been considered by the IHAC, by the CMA's Advisory Panel and by the Joint Standing Committee on Health and Welfare in the Cotton Industry. On the basis of the relationship illustrated in Figure 1 the representatives of the industry agreed on acceptable hygiene standards at which to aim.

The above is an example where voluntary agreement on the control of the environment has been reached on the basis of evidence. Increasing reliance is being placed upon voluntary co-operation of employers and workmen. Another example of this close co-operation

is the study set up by the Department of Employment with advice from, among other organisations, the Asbestosis Research Council, to monitor asbestos workers, including biennial periodic X-ray examinations of the chest.

#### Fields of study

Of the studies undertaken by the Division, a large proportion are concerned with diseases of the lung. Approximately 2,500 people die each year in England, Wales and Scotland with fibrosis of the lungs recorded on death certificates. This includes those subjects with all forms of pneumoconiosis and byssinosis but the majority of these are associated with employment in the mining, quarrying and similar industries. Medical Services Division is engaged in major studies of:

- (i) asbestos workers (aimed to cover the whole industry with biennial examinations);
- (ii) pottery workers (a 10 per cent stratified sample of the industry);

- (iii) cotton operatives (a cohort of approximately 4,000 men and women, some of whom were first examined in 1966, is being followed).

These cover known and well established causes of occupational disease but, because of the nature of evidence (a shortage of investigations into the relationships between exposure and effect), advice on hygienic precautions and periodic medical examinations has in the past been based on no more than crude guess work.

In both the Asbestos and Enzymatic Washing Powder Surveys periodic medical examinations are being undertaken and at the same time dust levels are being monitored by HM Factory Inspectorate Industrial Hygiene Laboratory so that eventually medical findings can be correlated with environmental dust burdens. The Pottery Survey was also designed so that recommendations might be made with respect to dust levels.

If, after every precaution has been taken, a suspicion remains that men working in particular technically based industries are exposed to hazard, then the extent of this hazard should be measured. Studies of mortality patterns also provide a major source of information, especially where occupation is associated or suspected to be associated with an enhanced risk of cancer. This necessitates speed in making decisions which in consequence implies that the largest possible studies must be mounted. Examples of the populations followed are:

- (i) the rubber and cable-making industries (males aged 35 and over employed one year or more at 1 February 1967);
- (ii) the asbestos industry (once subjects enter the Asbestos Survey they continue to be traced);
- (iii) bis-chloromethyl ether workers (all past and present employees at the two factories in this country manufacturing the substance are included); and
- (iv) several other smaller groups.

Studies of cancer of the lung in newspaper printers (4) and deaths attributed to mesothelioma have also been undertaken.

Medical Services Division also obtains a great deal of information from work carried out by its laboratory. Although recently preoccupied with examinations of lead workers and measurements of biochemical changes resulting from lead absorption, the laboratory specializes in measurement of a wide variety of trace elements. The laboratory is being used to study the long-term effects of raised blood lead, increased urinary excretion of coproporphyrin and reduced haemoglobin after industrial exposure to lead. Despite

major improvements in the factory environments there is still evidence of lead being absorbed in some occupations. Death or irreversible disease attributed to lead poisoning is however extremely rare. The long-term mortality pattern of lead workers and the significance of biochemical changes have not, however, as yet been studied. The Division, although only recently responsible for the medical aspects of training and rehabilitation, has started planning studies with the assistance and advice of the Department's psychologists, the Medical Research Council, and university departments in this field.

Society is wealthier and consequently less tolerant of what were until recently not measurable disease entities and disorders. It is therefore important to derive suitable measurements. These must include measurements of 'quality of life' based on psychological as well as physical effects of the occupational environment.

### Techniques applied

As must be evident from the above, it is highly desirable to evaluate regularly the methods and measurements used in clinical practice, in the laboratory, and in analysis.

Since a first attempt is being made to answer the pertinent questions in a scientific manner much of the methodology is either new or an extension of existing theory. Measurements are obtained mainly from:

- (i) a formalised history questionnaire;
- (ii) clinical examinations;
- (iii) special tests (measurements of lung function, skin reaction and serology);
- (iv) radiological examination;
- (v) sickness absence studies;
- (vi) cancer registration;
- (vii) death certification; and
- (viii) measurements of exposure.

A standardized questionnaire (5) for assessing the existence of respiratory disease is employed in most of the detailed morbidity studies of lung disease. Questions specific to other diseases of interest are added. These questions primarily relate to the time of onset and remission of symptoms in relation to exposures. A questionnaire often provides a useful guide to the type of response to exposure and consequently some evidence on the mechanisms involved, particularly when immunological effects are observed. Hypotheses concerning mechanisms that are suggested as a result of surveys must be subsequently investigated by laboratory experimentation for confirmation.

Often special tests are used in conjunction with a questionnaire. These provide more objective measurements of deviations from normality. Spirometry is used to estimate the Forced Vital Capacity (FVC) and Forced Expiratory Volume in one second ( $FEV_{1.0}$ ) for individuals. More specific parameters of the breathing curve can be estimated but these generally require more complex equipment and are not practicable in large scale surveys carried out in the field. Changes in individuals and means of groups for both  $FEV_{1.0}$  and FVC can be compared with 'normal' values and differences can be related to exposures and other factors thought to be of importance. Similarly methods have been developed for analysing blood samples and for assessing skin sensitivity to series of antigens. Clearly if all these techniques are to remain objective, standardization of procedure both in the field and in method of comparison must be achieved.

For many years investigations have been carried out into the radiological changes occurring in the development of certain occupational chest diseases. Detailed studies primarily of coal workers have been undertaken by both the National Coal Board and the Medical Research Council. As a result of which reading of X-rays of the chest for epidemiological purposes are not now dependent entirely on subjective judgement. It has therefore been necessary to establish standard reading techniques (6) and corrections for subjectivity. These techniques are in the early stages of development and there is still much work to be done. Although no clear understanding of radiological progression has as yet been obtained, X-rays have provided an extremely useful epidemiological tool especially in helping to describe the relationship between exposure and disease.

Sickness absence is complicated by the many social factors effecting its incidence and it is difficult to rule these out in most investigations. Identification of the medical component in long-term absence, that is, more than six months, presents no difficulty, but in studies of short-term absence, three days or less, medical reasons given in explanation are often little more than socially acceptable excuses.

Cancer registration is at present at a relatively early stage of development and there is necessarily a delay between diagnosis and notification.

Mortality studies are most useful, for example in the long-term investigation into the existence of industrial carcinogens. Large populations can be traced and mortality rates for the various causes of interest compared. Two types of mortality study are undertaken, namely:

- (i) prospective – where a population is defined and its mortality pattern observed; and
- (ii) retrospective – where populations are defined by the cause of death, for example, all people dying of mesothelioma.

Retrospective studies are usually used to obtain crude guides to define areas that need further study. They are often hampered because of difficulty in describing 'exposure' in useful terms. In order to confirm excess incidences or to evaluate animal or other experiments, it is usual to undertake a carefully planned prospective study.

To understand and apply such a wide variety of techniques advice and assistance is sought from several faculties both in the medical and the statistical fields. The Office of Population Censuses and Surveys provides invaluable help in all the mortality studies undertaken and offers guidance concerning recent developments in recording and methods of analysis. Medical Services Division also relies to a great extent on the assistance and advice given by the Medical Research Council (in particular, the Pneumoconiosis and Toxicology Units), hospitals and universities (the Institute of Diseases of the Chest, primarily) and the National Coal Board (Institute of Occupational Medicine).

### **Trends in epidemiology**

When the then Medical Branch of HM Factory Inspectorate was first established in 1898 its major role was to record reported cases of poisoning, by which was meant either death or the presence of overt symptoms and physical signs due to industrial causes. More recently the Department began to ask questions concerning the prevalence of disease, for example, 'how many people in industry A are suffering from disease B?' As a guide this was satisfactory because a 'high' response provided suitable evidence for the need for improvements in environmental conditions. Since initially the Department was concerned with prevention of 'convulsions and death' no sophisticated techniques were required. In recent years, however, more complex epidemiological techniques have become available (primarily as a consequence of computers). Medical Services Division is now asked to answer more complex questions, such as 'how many people who enter industry A suffer from disease B, and what are the roles of:

- (i) length of exposure;
- (ii) year of entry and age;
- (iii) exposure to industrial conditions (including exposure to toxic substance and dust); and
- (iv) do some people have an inbuilt susceptibility to some toxic substances.'

It has been realized that it is often people who have ceased exposure in an industry who provide much information concerning the hazard. This is not only the case when studying mortality patterns but also in morbidity studies, where one observes similar reactions in the industrial environment to those of smokers who realize that their health is being affected by cigarettes; that is, the decision to cease exposure (or smoking). By studying people who leave the industry conclusions can be drawn concerning advice on the continuation of exposure for those remaining in the industry. Studies of the natural history of the disease provide a better understanding of its relationship to the environment, its progression over time, and evidence suggesting possible advice and treatment.

With the advent of more complex questions the epidemiologist's techniques are also developing. He has had to learn how to handle sequential readings on individuals, to combine binary and non-binary data, to develop methods of eliminating subjectivity and observer error and to maintain standards over long periods of time. The populations now studied are larger than previously, necessitating the development of sophisticated computer systems. Standard systems are being developed for a wide range of statistical and epidemiological techniques so that, in future, they might be used in new surveys. Although this is at an early stage progress has been made and some techniques are already available. New studies, not requiring new methods, will consequently be relatively cheaper to mount. This will allow better measurements covering a wider range of hazards than previously obtainable.

The Robens Report (7) (1972, page 137) suggests that still more monitoring is required and that for this purpose it will be necessary to concentrate on the development of computerized linkage for personal medical records. It is hoped that the present development work will provide the foundations for the occupational aspect of these systems.

### Why a Government Department

The Department of Employment has responsibility for the health of the whole of manufacturing industry and can consequently call on the largest possible exposed population. This is often the most important factor in mortality studies since until a hazard is discovered and quantified people are being exposed to perhaps unacceptable risks. An example where the size of population has proved important is given by the survey of occupational cancer in the rubber and cable making industries where 40,000 people were studied and the results of the first 5-year analysis suggest that, although there is now no evidence of a hazard of cancer of the

bladder, an unexpected risk of cancer of the lung may exist.

The work undertaken is by necessity long-term, making it uninviting to a university department because of the lack of continuity in staff and interest.

Much of the data is collected by Medical Advisers in the course of routine work and examinations, and by the use of efficient data retrieval systems this information can be collated and analysed. Regulating systems must have inbuilt feedback if attempts at control are to be evaluated.

The information collected, as described above, provides the foundations on which can be built a monitoring system to measure accurately the state of occupational health.

### References

- (1) 'Survey of workers exposed to dusts containing derivatives of *Bacillus Subtilis*' by M. Greenberg, Judith F. Milne and A. Watt, pages 629-633 (*British Medical Journal* 2 1970).
- (2) 'Determination of lead in capillary blood using a paper punched disc absorption technique' by A. A. Cernik and M. H. P. Sayers, pages 392-398 (*British Journal of Industrial Medicine* 28 1971).
- (3) 'A survey of respiratory disease in cotton operatives: Part I and Part II' by A. J. Fox, J. B. L. Tombleson, A. Watt and A. G. Wilkie (*British Journal of Industrial Medicine*, in press).
- (4) 'A proportional mortality study of a group of newspaper printers' by M. Greenberg, pages 15-20 (*British Journal of Industrial Medicine* 29 1972).
- (5) 'Standardized questionnaire on respiratory symptoms' Medical Research Council, Committee on the Aetiology of Chronic Bronchitis, page 1665 (*British Medical Journal* 2 1960).
- (6) *The International Classification of Radiographs of Pneumoconioses* (International Labour Office, Geneva 1971).
- (7) *Report of the Committee on Safety and Health at Work 1970-72* Cmnd. 5034 (HMSO) July 1972 (Price £1.30, by post £1.38).

---

# The Further Education Statistical Record

C. J. Belliss, *Statistician, Department of Education and Science*

---

An earlier issue of *Statistical News* (19.17) contained an account of the Universities' Statistical Record. A similar development, based upon the collection of individual records, is being undertaken by the Department of Education and Science in the field of further education student statistics.

The Department's Further Education Statistical Record (FESR) is to be phased-in on a national basis as from November 1973. It will cover the two million or so students who are annually enrolled in the 666 major establishments of further education (including the thirty Polytechnics) in England and Wales. Collectively, these establishments provide a wide variety of courses, ranging from postgraduate qualifications and degrees, through various levels of commercial, professional, technical and trade training, to non-vocational evening classes. Student numbers have doubled over the past twenty years and the old 'night-school' image of the major establishments has faded as the proportion of students attending evening-only courses has fallen from 60 per cent of the total to 40 per cent.

The major establishments make a large contribution to post-school education and vocational training. Just over 200,000 students on day and evening courses are studying for qualifications beyond the GCE 'A' level standard. Of these, some 40,000 students are aiming for first degrees of the Council for National Academic Awards (CNAA) or London University, and 90 per cent of the degree students are on full-time or sandwich courses. Part-time day courses are provided for over 700,000 students, of whom 80 per cent are released by their employers during working hours. The recent White Paper *Education: A framework for Expansion* envisages an expanding role for the major establishments in the provision of higher education.

## The need for the FESR scheme

The present system of collecting statistics from the major establishments involves a series of seven different forms. These provide counts, each November, of student enrolments analysed to varying levels of detail by sex, age-group, mode of attendance, course, industry of employer (for released students), and country (for

overseas students). Apart from the time and effort required of college staffs in completing the returns, the system has a number of defects. The information received is limited by the formats of the returns, and it is almost impossible to devise readily comprehensible forms which would provide cross-classifications of all the parameters mentioned above. As a result of the limitations of cross-classifications, serious gaps continue to exist in the knowledge of the structure and trends of student numbers. Another major defect is that the present annual returns give almost no information about the inputs, flows, and outputs of the system. The absence of such information on a regular basis is detrimental when considering the future provisions in scale and level of course, particularly in view of the large and growing contribution which further education major establishments make to higher education and to the lower levels of vocational training.

As early as 1963, the Robbins Committee Report on Higher Education drew attention to the importance of more comprehensive statistics, and suggested that the deficiencies of the summary-type returns could be largely removed by a system based on individual records. In 1966 the Department of Education and Science convened a Working Group to consider how to improve the statistical knowledge and understanding of the further education system, whilst keeping form-filling and the preparation of statistics to a minimum. This Working Group included representatives of local education authority, college and staff associations. The main need of the Department was for a highly flexible system of cross-analysing numbers and flows of students in order to monitor steadily increasing opportunities and paths through the educational system. The need for flexibility pointed to a system whereby the Department could collect the statistical 'raw material', without having to pre-determine the cross-analyses derived therefrom. A system based on individual student records, as the Robbins Report had suggested, was the obvious answer. However, as large numbers of students were involved (two million annually), the transmission of written forms would have been too unwieldy for the major establishments and the Department to handle. Nevertheless, establishments have to collect information about individual

students for a variety of administrative purposes, for example, on enrolment forms. These individual records are used to compile the present summary-type returns for the Department; but systems of recording information about individuals are not uniform throughout the large number of establishments. After detailed consideration the Working Group advised that it should be practicable for student enrolment procedures to be used as the data-source for an individual student record system. Accordingly, in 1968, the Working Group recommended that a case for a student record system had been made out and that establishments could send the Department individual records taken from student enrolment forms. The information could be sent in a mechanised form using a standard format and standard codes in any of the input media (cards, paper tape, magnetic tape) acceptable to the Department's computer (an ICL 1904E).

### Planning the FESR scheme

It was appreciated that the proposed new system could not be implemented immediately in view of the complex nature of the undertaking. Not only would establishments need to be given a substantial period of advance notice of the changeover, but the Working Group made a number of recommendations regarding the planning that would have to precede the introduction of the new system. Amongst a number of recommendations, the Working Group urged that the new system should be introduced in stages, after pilot schemes; that the views of local education authorities and establishments should be sought on the scheme; and that local education authority associations should be invited to agree to the development of a model scheme for the computerisation of college records. The Working Group recommended a strict formula to safeguard the confidentiality and privacy of the statistical information about individuals. Throughout the planning stages there were consultations with the associations representing local education authorities, colleges, staffs and students.

Two pilot schemes were undertaken relating to the submission of student records in the Novembers of 1969 and 1970. The basic concept underlying the schemes was shown to be a feasible proposition, but several important aspects of procedure were shown to require attention if the scheme was to be introduced nationally. First, it would be necessary to ask for more than one record per student in certain cases. The present summary counts are, by and large, enrolment counts. For the large majority of students a single record would be sufficient but, in some cases, courses are aimed to give students more than one qualification

(for example, full-time courses which enable students to obtain two or more City and Guilds certificates) or students enrol for two courses simultaneously (for example, full-time students who enrol additionally for an evening-only course). Secondly, it was felt advisable to spread the implementation of a national scheme over two years by allowing local authorities and establishments an option of which of the years to transfer. This was a practical consideration which would take account of any local problems, such as local plans for computerisation of college records. It would also spread the inevitable burden of teething problems. A third point was that in the first year that an individual establishment transferred to the new scheme, it should double-bank its returns by providing both the present summary-type returns and the new student records. Double-banking would ensure that the Department's present statistics were not interrupted, and provide the necessary comparisons to ensure that the new procedures had been correctly applied by each establishment.

Pilot schemes were not continued in subsequent years, but there has been no lack of local education authorities and establishments willing, as volunteers, to participate in further experiments. For the Novembers of 1971 and 1972 sixteen establishments and eighty-eight establishments respectively have been allowed to dispense with the summary-type returns and to submit only the individual student records. These experiments were conducted without prejudice to a final decision to introduce the Further Education Statistical Record. In the experimental years a number of other volunteers have participated by double-banking their returns.

The development of model schemes for the computerisation of college records is the other main aspect of planning related to the Further Education Statistical Record. The Department, as advised by the Working Group, sent copies of the Group's recommendations to local education authorities and major establishments in 1969. A questionnaire invited views on various aspects of the proposed scheme. Replies to the questionnaire showed that establishments with about 20 per cent of students had already introduced mechanised (mainly computer) systems and that, in the foreseeable future, the proportion might be expected to increase to 70 per cent. The Department has since been represented on two projects to develop model schemes of the use of computers in college administration. A working party under the auspices of the Conference of Polytechnic Secretaries has developed a model scheme for use by Polytechnics, and another working party of the Local Authority Management Services and Computer Committee has developed a model scheme

for major establishments other than the Polytechnics. In both model schemes, the records required for the Department's FESR can be produced as by-products of the mechanised administrative process.

### **The new FESR scheme**

The FESR scheme will be introduced on a national basis as from November 1973. Details are now being collated from the 163 local education authorities about the major establishments which will be transferring to the new scheme in 1973 or 1974. As a result of local government reorganisation in 1974, or particular local problems, a small number of establishments may have to transfer in 1975. Establishments are asked to double-bank returns in the first year of transfer. An explanatory leaflet for students has been prepared in consultation with the National Union of Students to help remove any misconceptions and allay anxieties regarding the transmission of individual information to a central government department. The leaflet will be available on request from the offices of college registrars and gives full details of the aims of the FESR scheme, the information collected, its use, and the confidentiality safeguards. These require that an individual's permission must be obtained before access to an individual's record can be given to any persons outside the Department's Statistics Branch. Arrangements are being made to provide an individual student, upon payment of a small fee, with a print-out of his FESR record held by the Department. In addition, posters giving brief details of the FESR scheme will be issued for display on college notice boards. These posters draw attention to both the confidentiality safeguards and the availability of print-outs. Establishments are also being asked to show in a prominent position on enrolment forms a note informing students that certain information they give is to be sent to the Department. The information which is to be collected for the present scheme relates to November enrolments, and is as follows:

Reference number of college

Student's surname (first nine letters), initials, sex, and date of birth

Area of home address, or country if from overseas

Industry of employer (for released students)

Type of educational establishment last attended in previous year

Details of course, including length and year of course, and starting date

Whether course is integrated with industrial training, or a 'linked' course.

The present FESR scheme is the first, or basic, stage and discussion of two further lines of development is

envisaged at some later date. First, the above list of items does not include information about Industrial Training Board, date of leaving course, occupational classification of student, examination results, or first employment of full-time and sandwich course students completing courses of higher education. Many of these items would illuminate assessments of the flows and outputs from the further education system. However, these developments have to be deferred whilst the basic FESR scheme is being established, as there appears to be no uniform pattern at the local level of collecting and recording the additional information. An example of the magnitude of the problems involved is the collection of examination results. The Department's present list of courses does not include every course offered by the establishments but, nevertheless, it contains details of some three hundred awarding and examining bodies, offering about 4,000 qualifications or parts of qualifications for which results could be collected.

Another possible line of development may be to convert the initial FESR 'snap-shot' scheme of November enrolments to a 'cine-film' scheme relating to all enrolments occurring, or terminating, throughout a year. Both the Working Group and the Department have recognised that a full 'cine-film' scheme would overburden most establishments at the present time. It would, however, provide valuable additional information which is lost by a November count, for example, enrolments made in the second or third terms of the academic year, or on short courses. The introduction of computerised student record systems in the majority of establishments would facilitate this development.

### **Immediate benefits from the FESR scheme**

The full advantage of the FESR scheme would involve the linking of individual records from year to year to produce continuous patterns of education. Nevertheless, even without record linking, there are numerous gaps which can be filled from the FESR scheme, which remain unfilled with the present summary-type returns. Some examples of the immediate benefits are discussed below.

One of the defects of the present summary returns is that they relate, in the main, to enrolments. By collecting individual records, it will be possible to provide counts of 'heads' in addition to enrolments. Counts of 'heads' are particularly needed when comparisons are made with statistics of the population. Indications from the pilot and experimental schemes suggest that the present enrolment counts overstate the total number of 'heads' by, perhaps, 8 per cent or so, although the

differences vary as between the types of course and modes of attendance.

Another valuable addition to present information will be that more refined and extensive age analyses will become available because dates of birth are to be collected for all students. No breakdowns are, at present, available of students aged twenty-five years and over, nor for part-time day and evening only course students analysed by the type of course. The additional information should give measures of the industrial retraining of the more mature members of the population, and of the entry of married women to obtain technical and commercial training after they are freed from the initial years of family rearing.

Table A, estimated from a 1 in 30 sample survey of students, illustrates the wide age-range of the student population in the major establishments.

*Ages of students on courses leading to recognised qualifications*

Table A November 1969 Percentages

	Age on 31 December 1969				Total
	Under 21	21-29	30-39	40 and over	
Full-time and sandwich					
Men ... ..	68	29	3	1	100
Women ... ..	82	13	3	1	100
Part-time day					
Men ... ..	78	17	4	1	100
Women ... ..	73	9	8	10	100
Evening only					
Men ... ..	27	46	18	9	100
Women ... ..	42	31	15	12	100
Total					
Men ... ..	64	26	7	3	100
Women ... ..	66	18	9	8	100

At present, the population of a region can only be compared with the number of students at establishments in that region. Such comparisons remain valid only so long as the catchment areas of the establishments are local. However, for full-time and sandwich course students, and for the Polytechnics, the catchment areas are becoming increasingly nationwide. Information on area of home residence will enable regional statistics of student numbers to be corrected to relate to home population. Better comparisons of the education received by the regional populations will then be possible. For students on part-time day courses, analyses are available by type of course and, for those released during working hours, by industry of employer.

However, it is not possible to provide more than estimated figures of released students analysed by type of course, and it is impossible to provide details of type of course analysed by industry of employer. There is a constant requirement for the cross-analyses just mentioned, particularly in relation to industrial training. This requirement can be satisfied from the FESR scheme.

The two remaining examples which should be mentioned are that the FESR records will include information about the type of education establishment attended in the previous year, and whether a student attends a 'linked' course. Information about previous education will give early indications of the flows into the further education system, and this is necessary when making forecasts of student numbers. Table B, estimated from a 1 in 30 sample survey of students, shows that students come from several sources into the advanced courses of the major establishments and that the proportions differ according to the type of course entered.

*New entrants to advanced courses\* leading to recognised qualifications*

Table B November 1969 Percentages

	Course in 1969			Total
	Full-time or sandwich	Part-time day	Evening only	
Education during previous year:				
School ... ..	36	3	1	15
Non-advanced course in further education or other educational establishment ... ..	28	64	21	40
Not attending educational establishment in previous year ... ..	36	33	78	46
Total ... ..	100	100	100	100

\*Courses above GCE 'A' level or equivalent qualifications.

'Linked' courses, on the other hand, are courses provided by the major establishments during the day-time, in co-operation with schools, for students who are also on the registers of schools. The boundaries between schools and further education are becoming increasingly blurred, and co-operation between the two sectors of education may be further stimulated with the raising of the school leaving age. Counts of 'linked' course enrolments are not available at present. With the full development of record linkage, details of previous education and 'linked' course enrolments will throw much light on the effects of encouraging young



people in their school years to undertake trade and professional training when they leave school.

The developments described above should, for the most part, become available without the application of record linkage techniques. From November 1972, some 140 establishments (about 20 per cent) are expected to be co-operating, ahead of the formal introduction of the FESR scheme in 1973, by providing individual records to the Department either as their sole submission or on a double-banking basis. Diagnostic tabulations and preliminary estimates will be prepared of the cross-analyses discussed above, and these will be continued in subsequent years so that early estimated information can become available before the FESR is fully established.

### Longer-term benefits from the FESR scheme

Whilst the individual student record system of the FESR will fill the gaps in the present summary count statistics, the full development involves the linking of records year by year. The name and date of birth are the only means presently available to the Department of recognising individual records so that they may be linked. Linkage is, in fact, the only reason why the FESR records contain an individual's name, and one of the reasons for requesting the date of birth from all students. By linking individual records year by year, it will be possible to develop statistics about how people use the facilities available from the major further education establishments. Continuous progress-pictures will be developed which, when added together, will show the patterns of movement from course to course and of progress through the further education system.

### Ad hoc surveys

From the foregoing account, it will be appreciated that about nine years will have elapsed from the time (1966) when the Department first began to consider a new statistical system until 1975, the year by which all major establishments of further education will be participating in the FESR scheme. Meanwhile, various *ad hoc* sample surveys have been introduced to make good some of the deficiencies in the present annual summary counts. The surveys are based on the collection of individual records, and will be either discontinued or modified when the FESR scheme is established. Since 1961, information on 'A' level achievements has been obtained from an annual survey of 20 per cent of students on GCE 'A' level courses. Another survey was introduced in 1967 to collect details of the present course, qualification held on admission to the course, and previous education of samples of students. From 1967 to 1969 the surveys

related to a 1 in 30 sample of all students and, in 1970, the sampling fraction was increased to 1 in 10 but the range of courses included was reduced. Tables A and B were extracted from the sample surveys.

In addition to the sample surveys, the Council for National Academic Awards needed, for their own purposes, a record of all students on courses leading to their first degrees. Rather than impose a separate burden on the major establishments, the CNAA agreed that its needs could be met by extending the Department's 1 in 30 and 1 in 10 sample surveys to include all CNAA degree students. In 1968, a CNAA Statistical Record was initiated and it serves both the CNAA and the Department. The CNAA Record is being developed to collect details of students terminating courses or transferring to other courses, and their degree results. The first results from the CNAA Statistical Record were published in *Statistics of Education, 1970, Volume 3* and will form a continuous and expanding series in future editions of the volume. The details published so far relate to new entrants and give details of age groups, previous education and qualifications held on admission to the course. Table C is an extract showing the type of educational establishment attended in the previous year by 1970 entrants. Men who entered CNAA degree courses direct from some previous education tended to come through one of two routes, that is, from school or from some other course in further education, whereas women students tended to come mainly from school. For both men and women students there was also a substantial minority who entered CNAA degree courses after at least a year's break in their formal education.

1970 entrants to CNAA degree courses: educational establishment attended during previous year †

	Men	Women	Men and women
Education during previous year:			
School ... ..	40	62	44
Further education ... ..	35	17	32
Other education ... ..	7	4	7
Not attending educational establishment in previous year ... ..	17	16	17
Total ... ..	100	100	100

†Excluding overseas students.

This article outlines how the FESR scheme will provide more informative statistics within the next few years. It is hoped that this development will not only help those responsible for administering and planning

the further education system, but will assist educationists and others to give better advice to intending students. Further information about the FESR scheme can be obtained from Statistics Branch, Department of Education and Science, Elizabeth House, York Road, London SE1 7PH.

References

Education: A Framework for Expansion. Cmnd 5174 (HMSO) December 1972 (Price 31½p net).  
Report of the Committee on Higher Education (The Robbins Committee) Cmnd 2154 (HMSO 1963).  
Statistics of Education, 1970, Volume 3, Further Education (HMSO) March 1972 (Price £1.90 net).

The Government Statistical Service is making considerable efforts to make official statistics available to the public in a more accessible form. In particular, it is now producing a series of quarterly statistics designed to help subject matter specialists in various divisions of the Department. These reports, which are issued in loose-leaf form, are available to ensure that the statistics meet the needs of the industry concerned. Numerous seminars have been held with the Statistics Working Party of the Confederation of British Industry, with national bodies representing manufacturers and company associations, with professional bodies and learned societies for Industrial Statistics Research Association, the Society of Business Economists, the Market Research Society, the Institute of Statisticians and the Royal Statistical Society. Advice about its measures is available to BSO from its Statistician Advisory Committee on the Statistics of Production and of Distribution. The BSO acknowledges the very considerable help it receives from these and other bodies in its work.

Production statistics  
Annual census of production  
In the new system of industrial statistics the annual census of production covers the whole of Great Britain which describe the structure of United Kingdom industry. The statistics include gross and net output, total sales, total purchases, capital expenditure, stocks, employment and wages and salaries. The census may describe the composition of the manufacturing sector in industry between years as well as changes in the same year. The annual census of production which was taken for 1968 covers manufacturing, construction, mining and quarrying, electricity, gas and water supply, hotels, restaurants and other services, and the Industrial Classification system (1968). The census is on identical lines with the Great Britain census.

Progress of statistical  
Statistics Office

M. C. Leary, Director, Business Statistics Office

The BSO was set up in the beginning of 1969, to develop from the Bureau of Trade Census Office which had been responsible for the periodic census of production and distribution. At the beginning of 1969, the BSO had 200 staff, by January 1972 it had 300. Another 100 are being recruited to the BSO. The Director, Mr. C. Leary, who is also the Director of the Statistics of Production and Distribution, and Mr. J. M. Hammond, Director of the Statistics of Production and Distribution, are Senior Assistant Statisticians and their Assistant Statisticians are Assistant Statisticians. The members of the Statistical Group of the Civil Service who have all had considerable experience of statistical work, are in charge of most of the major areas within the office. Under the Deputy Director, the Computer and Management Services Division, the BSO is headed by Mr. A. J. Smith (Assistant Director) who is supported by four Assistant Statisticians. The BSO is the largest of the major divisions of the Civil Service and the administration of the BSO is the responsibility of Mr. A. W. J. Smith (Assistant Director) who is supported by four Assistant Statisticians.

The considerable increase in the size of the Office which has taken place during the last four years reflects the production of a new expanded and integrated system of industrial statistics which is replacing the old system of largely separate statistical censuses of production and of short-term indicators run by the Statistics Division of the Department. In addition, the Census of Distribution 1971 is a major current task of the BSO. The Office will expand further during the next few years as plans develop to take over, for example responsibility for short-term distribution statistics and for continuing the annual census of production and distribution.

---

# Progress of statistical work at the Business Statistics Office

M. C. Fessey, *Director, Business Statistics Office*

---

There have been a number of articles in previous issues of *Statistical News* and elsewhere about the work of the Business Statistics Office (BSO) written by members of the Government Statistical Service, including staff of the Office. A recent article in *Statistical News* (18.19) was concerned chiefly with the transfer of the office from Eastcote, Middlesex to new premises at Newport, Monmouthshire and the present article describes, against the background of the staffing of the Office, the progress made in the various statistical inquiries the Office conducts.

The BSO was set up at the beginning of 1969, to develop from the Board of Trade Census Office which had been responsible for the periodic censuses of production and distribution. At the beginning of 1969, the BSO had 580 staff; by January 1973 it had 903. Among them are fifteen professional statisticians – its Director, two Chief Statisticians (Dr. B. Mitchell, who is responsible for production statistics, and Mr. J. M. Simmonds, distribution statistics), eight Main Grade Statisticians, one Senior Assistant Statistician and three Assistant Statisticians. In addition four Principals, members of the Administration Group of the Civil Service who have all had considerable experience of statistical work, are in charge of some of the major inquiries which the office runs. Outside the inquiry branches, the Computer and Management Services Branch of the BSO is headed by Mr. J. A. Tiffin (Assistant Secretary) who is supported by four Principals; and the administration of the Office is the responsibility of Mr. R. F. L. Sims (Senior Principal).

The considerable increase in the size of the Office which has taken place during the last four years reflects the introduction of a new centralised and integrated system of industrial statistics which is replacing the old system of large scale quinquennial censuses of production and of short-term inquiries run by the Statistics Divisions of Departments. In addition, the Census of Distribution 1971 is a major current task of the BSO. The Office will expand further during the next few years as plans develop to take over, for example, responsibility for short-term distribution statistics and for construc-

tion statistics. A summary of the work currently being undertaken and of that planned for the future appears at the end of this article (Appendix II).

The Government Statistical Service is making considerable efforts to make official statistics useful to industry as well as to government. In introducing the new system of quarterly statistics described below, subject matter statisticians in statistics divisions of Departments have kept closely in touch with trade associations to ensure that the statistics meet the needs of the industries concerned. Numerous discussions, some seminars, some less formal meetings, have been held with the Statistics Working Party of the Confederation of British Industry, with national bodies representing accountants and company secretaries, with professional bodies and learned societies like the Industrial Marketing Research Association, the Society of Business Economists, the Market Research Society, the Institute of Statisticians and the Royal Statistical Society. Advice about its inquiries is available to the BSO from its Statutory Advisory Committees on the Censuses of Production and of Distribution. The BSO acknowledges the very considerable help it receives from these and other bodies in its work.

## Production statistics

### *Annual censuses of production*

In the new system of industrial statistics the annual censuses of production provide the summary statistics which describe the structure of United Kingdom industry. The statistics include gross and net output, total sales, total purchases, capital expenditure, stocks, employment and wages and salaries. The censuses make possible the comparison of the characteristics of an industry between years or with other industries in the same year. The annual censuses, the first of which was taken for 1970, cover manufacturing industry, mining and quarrying, electricity, gas and water supply (Orders II–XIX and XXI of the Standard Industrial Classification, revised 1968). The Ministry of Commerce, Northern Ireland, conducts censuses on identical lines with the Great Britain censuses for

all industries with the exception of mining and quarrying and results are therefore available for the United Kingdom as a whole.

The provisional results of the 1970 Census were given in *Trade and Industry* in December 1971 and the first of the 152 final industry reports, which include analyses by size and region, was published in January 1973; the publication of these reports should be completed during the first part of 1973 and a summary volume will appear later in the same year. The provisional results for 1971 were published in a *Business Monitor* at the end of 1972, and a summary of the results appeared in *Trade and Industry* on 14 December 1972. It is planned that the final industry reports for the 1971 Census should be available during the second half of 1973. The forms for the third of the annual censuses, for 1972, were despatched at the end of 1972, and provisional results should be published next December and the first of the final industry reports early in 1974. A new feature was introduced in the 1970 Census of Production when the BSO held a post-census survey designed to throw light on the nature and quality of the answers to the Census. ('Post-Census Survey on the Census of Production 1970', S. R. Curtis, *Statistical News* 17.7.) A more wide-ranging inquiry of a similar nature, into the results of the 1966 Sample Census of Population has recently been published by Percy Gray and Frances A. Gee of the Office of Population Census and Surveys (see *Statistical News* 20.25). A note describing how the censuses of production for 1973 onwards will be adapted to meet the statistical requirements which will arise from joining EEC appears in the 'Notes on current developments' section of this issue (page 20.36).

#### *Short period inquiries*

The new system of industrial statistics includes comprehensive quarterly figures of sales of products, including quantity data where appropriate, for the field of industry covered by the censuses of production. By the end of 1972, 131 enquiries had been launched covering approximately 26,000 establishments. The current programme involves a further 39 enquiries covering some 10,000 establishments and is expected to be completed, or almost completed, during 1973. Experience shows that, when one of the new quarterly inquiries is launched for the first time, many contributors are slow to respond. The average delay for the publication of results for the hundred inquiries running in the first quarter of 1972 was twenty weeks. The aim of the BSO is to publish results within three months of the end of the quarter to which they relate.

#### *Purchases inquiry*

Planning is going forward for an inquiry into industry's purchases which will cover the year 1974. The inquiry will seek a breakdown by commodity of the total value of firms' purchases of materials and fuel; in addition, details of quantities purchased will be required against some commodity headings. Industry has not been asked to provide information of this kind since 1968, when the last of the old quinquennial censuses of production was carried out. Efforts are being made, in close consultation with the Survey Control Unit of the Central Statistical Office, to reduce as far as possible the burden of the 1974 inquiry on respondent firms. In particular:

- (i) Inquiry forms for each of about 170 separately identified industries are being carefully scrutinised in order to keep the number of commodity headings to a minimum; and
- (ii) No establishment with fewer than twenty-five employees will be included in the inquiry. In a number of industries where small firms account for only a small proportion of total purchases, the exemption limit will be raised to 50 or 100 employees.

In order to give firms as much advance warning as possible of the data they will be asked to provide it is planned to send out information copies of all inquiry forms in mid-1973, eighteen months before the despatch of copies for completion.

#### *Research and development inquiry*

An inquiry into expenditure on scientific research and development will be held for 1972-73 on similar lines to the surveys covering 1969-70 and earlier years. A simple preliminary inquiry form will be sent out early in 1973 to the larger enterprises in manufacturing industry with the aim of establishing which firms currently engage in research and development activities. Subsequently these firms will be asked to co-operate in providing more detailed figures of their expenditures and their employment of skilled manpower.

#### *1968 Census of Production*

The 1968 Census of Production, the last of the quinquennial censuses, is nearing the final stage in the preparation of results. All of the 153 individual industry reports have been published and separate summary volumes covering analyses by industry, by country and standard regions and by enterprises, will be available within the next few months. A *Directory of Businesses* has also been prepared in thirteen volumes showing, for establishments which contributed and

agreed to publication, their names and addresses classification to census industries and, in total, the value of their contribution as a percentage of total employment and total sales. A note on publication of the reports of the Census appears under 'current developments' in this issue of *Statistical News* (20.35).

### Distribution statistics

#### *The Census of Distribution for 1971*

The 1971 Census was the third census of retailing taken in Great Britain. Provisional results for the census are being compiled and are based on response up to the end of October 1972. They are being published as a series of articles in *Trade and Industry*. The first article, giving the summary results of the enumeration of shops from which the register for the census was compiled was published on 21 September 1972. A second article appeared on 21 December 1972 and contained a summary table for the retail and service trades, and a more detailed table for shop trading by twenty-two intermediate kinds of business. A third article giving an analysis of the retail trade by form of organisation and kind of business appeared on 25 January 1973. The remaining article in the series will be published in March and will provide estimates of turnover and persons engaged for the standard regions of Great Britain.

Final results for the census will be published by HMSO as the *Report on the Census of Distribution and Other Services 1971*. It is expected that Part 1 of this report, Great Britain figures for retail outlets, will appear in the late autumn of 1973 to be followed at intervals over a period of about six months by Parts 2 to 11 containing regional figures and then by Part 12 (regional summary and index) for retail outlets. Tables for retail and service organisations will appear in mid-1974 to be followed by a supplement containing a number of special articles and analyses.

During the first half of this year the BSO intends holding a post-census inquiry into the results of the 1971 Census, similar to the post-census inquiry on the 1970 Census of Production. The aim of this survey is to discuss the difficulties experienced in providing the information with a sample of firms who responded to the census, mainly as a help in designing future surveys and determining whether there are any special factors that should be taken into account when interpreting the statistics that have been compiled.

#### *Annual inquiries for the distributive and service trades*

Annual inquiries into the distributive and service trades establish trends in stock movements and capital ex-

penditure of firms engaged in retailing, wholesaling, motor trading, catering, property owning, road transport and entertainment. Analysis of the 1971 results has been completed and the BSO is now planning inquiries into business done during 1972. These will include a large scale inquiry into the motor trades which will go to approximately 50,000 motor traders and will seek information about details of turnover in addition to stocks and capital expenditure. It is expected that the results of this inquiry will be published towards the middle of 1974 in the *Business Monitor Series*.

During the autumn of 1972 the BSO completed a large scale inquiry into the catering trades in Great Britain in respect of business done during 1969. The inquiry provided an analysis of the structure of the catering trades and established new benchmarks for the regular short period statistics of turnover, capital expenditure and stocks. In addition, information was collected for the first time on bedroom accommodation in licensed hotels and motels, licensed guest houses and holiday camps. Final results for this inquiry are available in a report published by HMSO (*Catering Trades 1969, Statistical Inquiry* November 1972, Price 32p). Some provisional results appeared in *Trade and Industry* on 13 April 1972.

#### *Future developments in distribution statistics*

The annual inquiries for the distributive and service trades complement similar information obtained from a smaller sample of voluntary contributors at monthly or quarterly intervals. These short-term inquiries are, at present, carried out by the Department of Trade and Industry in London. The BSO will gradually be assuming responsibility for them and, during 1973, the monthly retail sales index and the short-term turnover inquiries for catering and the motor trades will be transferred to Newport.

A review of the existing systems of statistical inquiries in the distributive and service trades is at present taking place. A working group composed of members of the Business Statistics Office, the Department of Trade and Industry and the Central Statistical Office is currently considering what is desirable in the way of a future system, and the views of interested organisations will shortly be sought. The aim is to consider the creation of a new system in this field which would parallel developments in production statistics.

#### **Central Register of Businesses**

One of the major tasks envisaged when the BSO was set up was the creation and maintenance of a Central Register of Businesses for use by all departments for

the collection of business statistics. A detailed description of the aims, purpose and anticipated structure of the Central Register was given in an article by L. S. Berman in *Statistical News* 4.5. A Central Register, which is basically an up to date list of names and addresses of businesses and business units classified by industrial activity, location, size, etc. from which statistics can be collected, would replace the current, rather unsatisfactory, variety of business registers maintained by departments for different statistical collections. A major advantage of a Central Register with a standardised structure will be the ability to relate together meaningfully the statistics collected in different inquiries.

It is estimated that there are around one and a half million units in Great Britain which would need to be incorporated in a Central Register of Businesses for statistical inquiries. In answer to a Parliamentary Question on the recommendations on statistical form-filling in chapter 15 of the *Report of the Bolton Committee on Small Firms* (*Hansard*, 29 March 1972, col. 97-8), the then Parliamentary Under Secretary of State for Industry (Mr. Nicholas Ridley) acknowledged the importance of a Central Register of Businesses and stated that the Business Statistics Office is actively exploring the possibility of developing such a register. These investigations cover, *inter alia*, the size and structure of the register, computer systems requirements and sources of data for register building.

Detailed investigations have been made into the use of information from the Annual Census of Employment for register building and, as part of this work, the production registers of the BSO and the Department of Employment have been matched to produce a continuously updated 'Agreed Register' which is now available for all statistical inquiries directed to manufacturing firms by the BSO and departments. The Agreed Register is held on the BSO computer, while a visible card index system is used so that the information held for each establishment and the links between establishments, companies and enterprises can be seen quickly.

## The Computer and Management Services

### *The computer*

An ICL 1906A computer was commissioned at Newport towards the end of 1971. The central processing unit with 128 thousand words of core store has exchangeable discs and high speed tape decks and can deal with both paper tape and punched cards. Some sixty staff are engaged on system analysis and programming. The computer is at present being worked on two shifts but a third shift will be introduced in the spring of 1973.

The BSO's computer sections are developing a general system – the Standard Industrial Survey System (SIS) – designed to provide a suite of programs which will handle all aspects of the many different statistical inquiries the Office holds. This System includes modules which handle the addressing of inquiry forms and modules recording receipt of completed questionnaires and which take data from questionnaires on to the computer. The system is now being developed to provide more sophisticated methods of validating the information which firms provide on questionnaires. An important element of SIS deals with imputation procedures – that is, of allowing for firms which do not respond quickly so that timely results of inquiries can be produced. The system also includes tabulation programs and the BSO will shortly, for the first time, publish the results of its inquiries direct from computer output.

Bulk despatch of inquiry questionnaires and correspondence, such as reminder letters, is fully mechanised as are special mailing exercises such as 'Europe – A Check List' which was distributed for the Department of Trade and Industry to commercial and industrial concerns on the BSO's inquiry registers and a questionnaire sent on behalf of the Metrication Board to firms in the engineering industry. In such exercises, great care is taken that the confidentiality of the information the BSO holds is not infringed in any way.

### *Management services*

Apart from its normal computer activities the Management Services and ADP Branch is responsible for evaluating new BSO tasks and undertaking organisation and method studies, etc. These include the development of a costing system for the Office and possible use of visual display units and microfilm. Remote terminal links with statistics divisions at DTI headquarters in London will be introduced in 1973.

One difficult project to which thought is being given is the development of 'tailor made' questionnaires to meet the particular response pattern of each individual respondent. If this project proves successful the present forms, which normally list all the principal products of an industry, will be replaced by forms listing the products known to be made by each contributor. A further possible development would list, in the questionnaire for the current quarter, the information returned by the contributor for the previous quarter.

### *Technical methods*

The BSO is devoting an increasing proportion of its professional statistical resources to improving the methodology of its inquiries. Hitherto, its professional

statisticians and other senior staff experienced in statistical work have been fully stretched in running its programme of inquiries. A Technical Methods Section has recently been set up and included in its programme are methods of allowing for non-response – an article by A. D. Cunningham on this topic was published in a recent issue of *Statistical News* (19.10) – as well as methods for checking, and possibly for editing, information provided by contributors. Other tasks include examination of the scope for extending the use of sampling methods so that the burden of form-filling, particularly on small firms, may be reduced. Technical Methods Section is also responsible, in consultation with the Classifications and Standards Unit of the Central Statistical Office, for developing and improving the commodity, industrial and other classifications used in the BSO.

### **Business Monitors**

This year the Business Statistics Office assumes responsibility for the printing and production of the *Business Monitors*. This work will be carried out in conjunction with Her Majesty's Stationery Office near Cardiff. The monthly issues will be the first to appear, starting in March, and when the scheme is fully operational more than a thousand Monitors will be published each year, comprising monthly, quarterly and yearly results. The opportunity has been taken to adopt a new style of cover which, while conforming to the new style being adopted for other publications of the Government Statistical Service and to the style of the Department of Trade and Industry, will distinguish the output of the Business Statistics Office. The style has been designed by HMSO and will use a colour scheme which will distinguish the periodicity of the inquiry covered by a publication.

### **Appendices**

One of the following appendices lists articles which have appeared about the BSO in previous issues of *Statistical News*, in *Trade and Industry* and elsewhere; the other appendix summarizes the BSO's programme of current and planned inquiries.

## APPENDIX I

### Articles in *Statistical News* and elsewhere about the BSO

<i>Statistical News</i>		<i>Date</i>	<i>Article</i>
The development of industrial statistics, J. Stafford, No. 1 May 1968		29.4.70	Census of Production 1968 – Further analyses of provisional results – manufacturing industries
The Central Register of Businesses, L. S. Berman, No. 4 February 1969		6.5.70	The Motor trades in 1967
The Census of Production, H. E. Browning, No. 5 May 1969		12.8.70	Stocks and capital expenditure in the distributive and service trades 1968
Printing and publishing: a new inquiry, A. A. Sorrell, No. 6 August 1969		2.9.70	Area analyses of the provisional results of the Census of Production for 1968
Census of Distribution for 1966, J. R. L. Schneider and J. C. Suich, No. 7 November 1969			
The needs for statistics of the plastics industry, A. A. Sorrell, No. 7 November 1969			
Industrial statistics: the quarterly sales enquiries, R. W. Green, No. 8 February 1970			
Confidentiality of business statistics, M. C. Fessey and H. E. Browning, No. 10 August 1970			
The burden of form filling on small firms, Note by the CSO, No. 11 November 1970			
The statistical unit in business inquiries, M. C. Fessey and H. E. Browning, No. 13 May 1971			
New statistics and the Index of Industrial Production, A. A. Sorrell, No. 15 November 1971			
The Inquiry into the Catering Trades for 1969, J. D. Morris, No. 15 November 1971			
Preparing for the Census of Distribution, R. W. Makepeace, No. 16 February 1972			
Post-Census Survey on the Census of Production 1970, S. R. Curtis, No. 17 May 1972			
Developments at Business Statistics Office, R. F. L. Sims, No. 18 August 1972			
The new system of industrial statistics: statistical and computing aspects of the quarterly inquiries, A. D. Cunningham, No. 19 November 1972			
<i>Trade and Industry</i>			
		<i>Date</i>	<i>Article</i>
		25.11.70	How the retail census can help industry and retailers
		30.12.70	Stocks and capital expenditure in manufacturing industry 1969
		28.4.71	Stocks and capital expenditure in certain distributive and service trades 1969
		30.6.71	Commodity analysis of the turnover of large retailers
		23.12.71	Census of Production: provisional results for 1970
		13.1.72	Census of Distribution for 1971
		27.1.72	Some highlights of the Census of Production for 1970
		21.9.72	The 1971 Census of Distribution: a count of Britain's shops
		14.12.72	Commodity analysis of the turnover of large retailers
		21.12.72	Provisional results of the Census of Distribution for 1971
		25.1.73	
<i>Miscellaneous articles</i>			
			M. Richardson and A. D. Cunningham 'Vetting of industrial survey questionnaires by computer', paper read at Royal Statistical Society General Applications Conference, University of Kent, Canterbury, April 1971. Obtainable from BSO.
			M. C. Fessey 'Plans for a new system of business statistics', <i>Aslib Proceedings</i> Vol. 22 No. 7 July 1970.
			Seminar held on 31st October 1969 on 'Business statistics and information for the manufacturing and construction industries' organised jointly by Industrial Marketing Research Association and the Business Statistics Office, <i>Journal and proceedings of the Industrial Marketing Research Association</i> Vol. 6 No. 1 February 1970.
<i>Board of Trade Journal</i>			
<i>Date</i>	<i>Article</i>		
7.3.69	Stocks and capital expenditure in the distributive and service trades 1967		
31.12.69	Provisional results of the Census of Production 1968		
28.1.70	Some highlights of the provisional results of the Census of Production for 1968		
18.3.70	Final results of the Census of Distribution 1966		



APPENDIX I—continued

'A seminar on business statistics' organised by the Industrial Marketing Research Association and the Business Statistics Office, 5 May 1971. *Journal and proceedings of the Industrial Marketing Research Association*, Vol. 7 No. 4 November 1971.

*The Business Statistics Office*, Department of Trade and Industry, 2nd edition 1972.

M. C. Fessey 'Developments in official economic

statistics' paper read at the 18th Annual conference and study group of the Library Association, Reference, Special and Information Section, York, 3 to 6 April 1970

M. C. Fessey 'Some developments in economic statistics since 1934.' *The Statistician*, Vol. 19 No. 2 May 1969

M. C. Fessey 'What's all this about Statistics.' *The Chartered Secretary*, August/September 1970.

## APPENDIX II

### Summary of current and planned inquiries by the BSO

#### 1 Monthly inquiries

There are 69 commodity inquiries with approximately 3,000 contributors.

#### 2 Quarterly sales inquiries

##### a) Already in operation:

First introduced	Number of industries	Number of contributors
1968 4th qtr.	3	2,480
1970 1st qtr.	4	1,160
2nd qtr.	9	1,440
3rd qtr.	9	3,480
4th qtr.	6	1,400
1971 1st qtr.	17	3,000
2nd qtr.	6	450
3rd qtr.	20	3,800
4th qtr.	14	1,420
1972 1st qtr.	10	2,970
2nd qtr.	7	1,320
3rd qtr.	14	1,850
4th qtr.	12	1,800
<b>Total</b>	<b>131</b>	<b>26,570</b>

##### b) To be introduced:

	Number of industries	Number of contributors
1973 1st qtr.	20	4,350
Probably during the remaining three quarters	19	5,500
<b>Total</b>	<b>39</b>	<b>9,850</b>

##### c) Totals of (a) and (b):

Number of industries 170  
Number of contributors 36,420

#### 3 Annual Census of Production

##### (a) 1970

Provisional results published in *Trade and Industry* on 23 December 1971

First of 152 final industry reports published January 1973

Publication of remaining final reports during first half of 1973

##### (b) 1971

Provisional results published in *Trade and Industry* on 14 December 1972

Publication of final industry reports in second half of 1973

##### (c) 1972

Questionnaires sent to 31,000 manufacturing firms at end 1972

Provisional results to be published in December 1973  
First of final industry reports to be available early in 1974

##### (d) 1973 onwards

See note about the Census of Production for 1973 and subsequent years in *Statistical News* (20.36)

#### 4 Construction inquiries

In the long-term the BSO will take over many of the construction inquiries at present undertaken by the Department of the Environment.

#### 5 Minerals Raised Inquiry

An inquiry involving some 6,000 units is planned for 1973.

#### 6 Purchases Inquiry

An inquiry covering approximately 170 industries is planned for 1974. Information copies of inquiry forms are to be sent to contributors in mid-1973.

#### 7 Research and Development Inquiry

6,500 forms for the 1972/3 Survey were despatched in January 1973.

#### 8 Census of Distribution 1971

Provisional results are being published in *Trade and Industry*. The first part of final results will be published at the end of 1973.

#### 9 Annual inquiries into distributive and service trades

There are a number of regular inquiries and among those planned to cover 1972 are:

Motor trades. 1972 will be a base year inquiry directed to approximately 50,000 firms. Results are expected to be published in a *Business Monitor* about mid-1974.

Catering trades. Sample inquiry to be made involving 10,000 units.

Wholesale trades. 14,000 firms are to be asked about their capital expenditure and stocks.

Property. 50,000 firms are to be asked for information about their capital expenditure.

#### 10 Retail sales index and other short-term inquiries

Responsibility for the monthly retail sales index and short-term inquiries into the catering and motor trades is to be transferred to the BSO in 1973.

#### 11 Central Register of Businesses

The BSO is examining the problems of setting up a Central Register of Businesses for use in statistical inquiries.

# A national heavy goods vehicle register

T. F. J. Hobson, and R. M. Taylor, *Statisticians,*  
*Department of the Environment*

## Introduction

The Department of the Environment has maintained for many years a register of heavy goods vehicles for use not only to provide basic statistics of the goods vehicle fleet but also to serve as a sampling frame from which surveys of the transport of goods by road can be based (see *Statistical News* 9.6). When changes occurred in the licensing system, the opportunity was taken to construct a completely new register of goods vehicles. This article discusses some of the problems which arise in the construction and maintenance of a large register with special reference to this national heavy goods register.

The register has two particular areas of difficulty, size and rapid turnover. Road freight transport is an extremely fragmented industry – 85 per cent of operators run five or less vehicles. There are approximately 550,000 entries in the register each one of which on average has a 'life' of two years or less. Some vehicles are scrapped but most are sold to another operator. The 20,000 amendments each month require clerical and ADP data preparation facilities as well as a strict system of control. In the earlier register there was a constant problem of irremovable erroneous entries – 'deadwood' – but this is not a major difficulty in the current register.

## 'Deadwood' – the cause

The reason for 'deadwood' is very simple. With such a large file and a large turnover it is inevitable that there will be errors. The actual error in the file is the combination of all errors up to and including the card punching stage and does not just include card punching errors. A major source of error is believed to be clerical errors prior to the card punching stage. In addition some 'deadwood' is the result of operators failing to notify the Department that they have disposed of a vehicle. Suppose for illustrative purposes that the probability of an erroneous character in a record is 1:500 then the expected proportion of records with an error in the registration mark field is  $1 - \exp(-7/500)$  which approximates  $7/500 = 1.4$  per cent. This means that when the master file is first set up something like 8,500 records have an error in the key

field and cannot be deleted by the ordinary method of updating. But it is worse than this because 1.4 per cent of each month's amendments will have a similar proportion of records in which the key field is incorrect. The effect of the relatively high turnover of this file brings the proportion of 'deadwood' from 1.4 per cent in the initial period up to over double this proportion (3.0 per cent) after three years. The net effect from whatever source is that the 'deadwood' builds up over time and relatively soon the file is of limited use.

## 'Deadwood' – the remedy

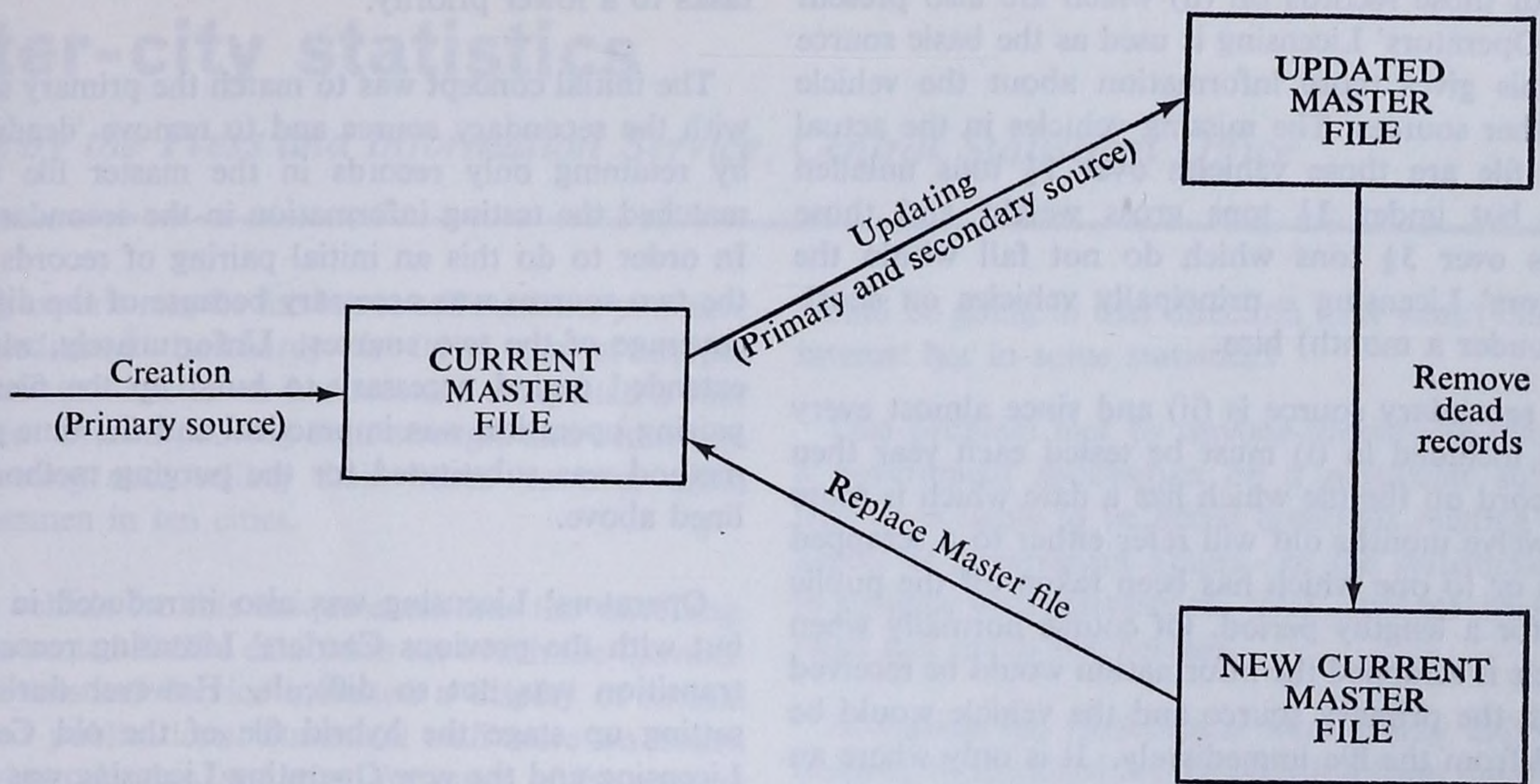
As explained above the usual method of updating will not prevent in the normal course of events the accumulation of irremovable erroneous records. One solution to this problem which the Department is trying to adopt is to use information from a completely independent secondary source. Dead records are removed from the master file by using a system of dating. Whenever information is received from either the primary or secondary source the record is amended accordingly and the date this information was received is added to the record. Any record for which no information has been received for some time is then regarded as dead and is removed from the file. Of course the actual period during which a vehicle, for which no information has been received, is allowed to remain on the file is important. If it is too short, vehicles will be erroneously removed, while if it is too long, dead records will start to build up. Fortunately in this particular case, as explained below, information should be received on every live vehicle at least once in every twelve months and, therefore, if the period is set to one year it will eradicate the possibility of erroneously removing records. It should be recognised that since both sources of information will contain errors no master file of this nature will at any time be a completely true representation of the vehicle fleet but with regular updating and purging the percentage error can be kept within single figures.

## A model system

Before going into the difficulties and complications of the actual system it may be helpful to describe an idealised system unencumbered with irrelevancies. It

FIGURE 1

Cycle of operations in model system



is assumed that there are two independent sources of information covering the same population. We can call these the primary (P) and secondary (S) sources of information. The creation of the master file is carried out using P. Periodic updating makes use of more recent information from P and S. Records on the master file are eliminated when no reference has been made to that record over a predefined period and removes the possibility of a systematic build up of 'deadwood'.

**The actual system**

Various legislation in the 1960's gave birth to a number of administrative processes from which it was possible to set up a national heavy goods register which could be kept reasonably free from error. These are concerned with regulation in some way of goods vehicles.

(i) *Operators' Licensing*

Administered from eleven regional offices; regulates the operation of goods carrying vehicles over 3½ tons gross weight.

(ii) *Plating and testing*

Administered from Goods Vehicle Centre Swansea; assigns the maximum all-up weight of goods carrying vehicles over 1½ tons unladen weight and over one year old, and carries out annual testing of vehicles after plating has been done.

(iii) *Central excise licensing (not yet completed)*

Administered from Driver and Vehicle Licensing

Centre Swansea; new registrations and renewals of all vehicles.

It can be seen immediately that at least one of the essential conditions present in the model system is not present in the actual system. No source covers the same vehicle fleet. In fact, apart from the central excise licensing (which is not yet in force), no source covers the whole vehicle fleet. Something like two-thirds of the goods vehicle fleet are vans usually based on a car design and are not included in either of the first two sources. Fortunately, although the Department is interested in the whole vehicle fleet, most of the work is done by the larger vehicles and the loss of these vehicles (about 900,000) is unimportant in following the trends of the transport of goods by road. It also brings the file nearer to a manageable size. There is some choice in the composition of the master file. Some cut off point is desirable if not essential and the conceptual master file chosen is of all goods vehicles over 1½ tons unladen weight engaged in carrying goods. This corresponds with the excise licence category over '1½ tons goods'. It is of some importance because eventually the centralised licensing project will be the national register of vehicles and include *inter alia* current registrations of goods vehicles. If the Department changed over to using the centralised licensing records there would be no difference in the definition of fleet.

The actual master file being created at the moment falls short of the conceptional population. It is composed of those records on (ii) which are also present on (i). Operators' Licensing is used as the basic source since this gives more information about the vehicle than other sources. The missing vehicles in the actual master file are those vehicles over  $1\frac{1}{2}$  tons unladen weight but under  $3\frac{1}{2}$  tons gross weight and those vehicles over  $3\frac{1}{2}$  tons which do not fall within the Operators' Licensing – principally vehicles on short-term (under a month) hire.

The secondary source is (ii) and since almost every vehicle included in (i) must be tested each year then any record on the file which has a date which is more than twelve months old will refer either to a scrapped vehicle or to one which has been taken off the public roads for a lengthy period. Of course normally when a vehicle is scrapped the information would be received through the primary source and the vehicle would be deleted from the file immediately. It is only where an owner fails to notify the Licensing Authority or there has been a clerical punching error that a vehicle will remain on the file as 'deadwood'. In this case it will remain there at the most for twelve months and in practice probably considerably less.

### Operating experience

The national heavy goods register was started two years ago and is now in a working state. Several problems arose during the setting up stage and modifications to the initial concept were made in the light of experience. The form used for the introduction of Operators' Licensing was designed by O and M as a compromise between the administrative purpose and as a direct punching document for statistical purposes. Even so, a certain amount of editing was essential before card punching could be carried out. The need to train staff in this work as well as limitations on numbers of staff initially produced a backlog of unprocessed forms which took time to clear and gave rise to side effects, like the attempted removal of records before they had been added to the file. Even now that the system is operating smoothly there is an unavoidable time lag between the actual situations and the position as recorded on the file.

Problems of a similar nature arose at Swansea, the source of the secondary source. A new organisation had to be set up to tackle the not inconsiderable task of plating all goods vehicles over  $1\frac{1}{2}$  tons unladen weight. Necessarily the work was divided into stages to cover existing vehicles and to include newer vehicles. Many new ventures experience some trouble despite careful planning and this was no exception. An addi-

tional problem was that the administrative exercise was time bound by law, necessarily relegating statistical tasks to a lower priority.

The initial concept was to match the primary source with the secondary source and to remove 'deadwood' by retaining only records in the master file which matched the testing information in the secondary file. In order to do this an initial pairing of records from the two sources was necessary because of the different coverage of the two sources. Unfortunately, with the extended period necessary to build up the files, this pairing operation was impractical and the time period method was substituted for the purging method outlined above.

Operators' Licensing was also introduced in stages but with the previous Carriers' Licensing records the transition was not so difficult. However during the setting up stage the hybrid file of the old Carriers' Licensing and the new Operating Licensing was partly incomplete and partly out of date. During the period a continuous survey of road goods transport was in progress and various adjustments had to be made to the results of this survey to allow for defects in the sampling frame.

Finally, changes in the initial concept meant that the computer program written to process the information had to be amended, sometimes quite radically, to allow for the alterations.

Only the combined effort of the Traffic Area staff, the Goods Vehicle Centre staff and the data processing staff at Hemel Hempstead have made the creation of the Register possible. As stated above it is believed that the Register will now pay for its keep in supplying administrative and statistical information to the Traffic Areas, the Goods Vehicle Centre as well as to the central Department.

---

# Inter-city statistics

*Note by the Press and Information Service, Central Statistical Office*

---

Selling exports may be fun but to sell statistics you have to be dedicated – and hardy with it! A team of intrepid government statisticians has recently completed a tour of Great Britain proving their strength and dedication by meeting and ‘selling their wares’ to over 5,000 businessmen in ten cities.

The vehicle for this unique event was the travelling, train-mounted IMEX exhibition on which the Government Statistical Service mounted a display of several hundred publications. Statistical staff were on board throughout the day (and often for much of the evening too) dealing with questions on the spot or referring them back to a quick-response service in London. One satisfied customer, a sales executive from Leeds, commented that he had learnt more in twenty minutes on the train than in years of letter writing to government departments. An extreme case of euphoria, but there was no reason to think that the great majority of visitors were other than satisfied with what they saw and learnt.

The emphasis in the display was to provide publications that would-be users could handle and browse through in order to see for themselves the vast amount of information available from the Government Statistical Service. Many of the visitors admitted that they had not realised just how much readily-usable information there was around.

The range of questions dealt with was very large. As expected, most of them concerned sales and production statistics and in particular the new system of quarterly inquiries published through the Business Monitors. Much interest was shown in the new Directory of Businesses (based upon Census of Production returns), the first of its kind ever attempted by the GSS. Almost every conceivable topic was touched on at some stop on the tour: a Midlands food manufacturer was supplied with a special tabulation from the National Food Survey; a Glasgow businessman asked for and received the average price of petrol in central Glasgow ten years ago; numerous personnel managers were given analyses of wage and earnings movements in their own industries; and a frail old lady was assured that no, this wasn't the train for Widnes, though it

would be going in that direction next week! Could we interest her in some statistics?

One problem met by anyone identifying himself as a government spokesman on a particular subject is that he is liable to be asked questions relating to any aspect of government affairs – so the statisticians had to struggle with metrication, VAT, civil service recruitment and much else besides.

Alongside the statisticians were young lady receptionists, all recruited for the occasion from the Business Statistics Office at Newport. In addition to showing visitors around the display of publications, they enlivened the week by bravely donning ‘Government Statistics’ T-shirts to be photographed with the Lord Mayor or other local dignitaries at each opening ceremony. The coverage that this achieved in newspapers and on television helped to publicise the exhibition as it arrived at each city. Despite these efforts, a fairly regular comment was that, with greater publicity, far more people would have come to see the train.

The whole exhibition, designed to help management make more use of all sources of published information in their marketing planning, was conceived and organised by Ian Maclean, a marketing research consultant. It was sponsored by the Institute of Marketing, the Industrial Market Research Association, and the Association of Special Libraries and Information Bureaux (Aslib).

One of the special features of this venture was the lectures and courses in information sources which were held in the two lecture theatres on the train. The government statisticians played a full part in these and indeed organised their own talks, principally to business studies students from colleges in or near the cities visited. One college complained that the train was not coming near enough to them, so a statistician was despatched from the train to talk to them and a group from a nearby town. The Institute of Marketing also organised their own series of Monday evening meetings at local hotels as the train arrived at each city. Senior members of the Government Statistical Service, including Martin Fessey, Director of the BSO, appeared as guest speakers at each of the venues.

The response to the train's visit varied from place to place. Birmingham, Manchester, Liverpool and London were all very busy; Sheffield and Leeds middling; whilst Nottingham, Bristol, Glasgow and Newcastle were relatively quiet. But the quality and interest of the visitors was consistently high as evidenced by the hundreds of completed enquiry forms received by the Central Statistical Office in London during and immediately after the tour.

The flow of information is not all one way on these occasions and a very valuable aspect of the GSS participation in this venture has been the feedback, both on the train and in subsequent correspondence, about the needs of present and would-be users of government statistics. Many of the suggestions are now being processed to see if they can be incorporated in future publication plans. It also proved a valuable opportunity for statisticians to meet a cross-section of their customers and suppliers of data. There is broad agreement that both sides benefit from this kind of face-to-face contact.

It is the aim of the Government Statistical Service to make known as widely as possible the range of inexpensive publications and services available to managers in commerce and industry, particularly in connection with their marketing activities, and participation in IMEX was part of the continuing campaign devoted to this end. The GSS is constantly looking for further ways to disseminate information and the Press and Information Service at the Central Statistical Office will be very pleased to receive any suggestions on this from existing users of statistics.

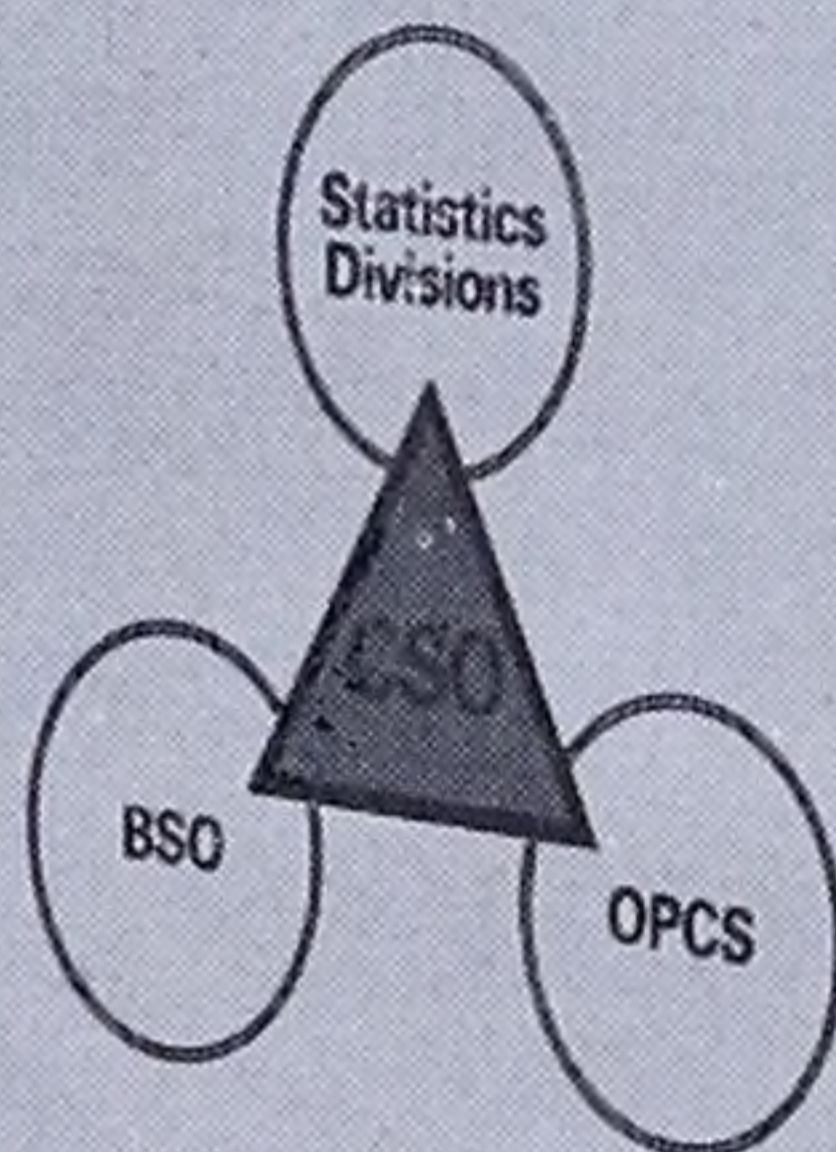
# Government Statistical Service

## 1 Looking for UK marketing information?

Check first to see what we have to offer. The Government Statistical Service provides regular and reliable figures on a wide range of subjects. And they are inexpensive. You pay only for the cost of publishing them.

## 2 First find your source

Much of what you want will come from the Business Statistics Office or the Office of Population Censuses and Surveys. But every large Ministry has its own statistical office and produces its own publications. Many of these will be in your local library. A comprehensive collection is available for reference at the Statistics and Market Intelligence Library in London. The leaflet *Government Statistics* will help you find your way around. If in doubt, phone the Central Statistical Office, 01-930 6422, Ext. 602, who will give you the right contacts.



## 3 As a starter

Look at the Digests which bring together much of the information – national and regional – in summary form. If they don't contain all you need, move on to the specialist publications and services.

## 4 You need

A vast amount of published form concerned to help you

\* assess market

\* count numbers

\* define market

in most areas of the country

One of the five display units in the Government Statistical Service stand on the IMEX train



---

# Notes on current developments

---

## POPULATION AND VITAL STATISTICS

### 1971 Census, Great Britain

The more extensive tabulations in the 1971 Census County Reports, each of which is published in three parts, has led to the publication of the explanatory notes as a separate volume. This volume gives the explanatory notes in more detail than when they were published as a preface to individual county reports.

Features of the explanatory notes are: a summary of census procedure from the granting of statutory authority to the publication of results; detailed definitions of the terms used in tabulating the responses to the various census questions; the order of processing the county reports; extracts from enumerators' instructions and from the census training manual; and a representative set of census schedules. There is also a comparison with the 1951, 1961 and 1966 Censuses of the treatment of housing topics pointing out changes in the definitions used. Much of the material included in these notes is being made available earlier than has been the practice in past censuses.

#### Reference

*Census 1971, Great Britain, County Reports, General Explanatory Notes* (HMSO) November 1972 (Price 85p).

### Cohort studies

A booklet has just been published describing a new study being developed within the Office of Population Censuses and Surveys (OPCS). The project is intended to provide a greater understanding of the statistical relationships between 'events' occurring to people (such as births, deaths, and migration) and the wide range of factors, past and present, that may be related to such events. Thus one main area of study is the relationship between mortality and social, economic and environmental factors (for example, housing, occupational history, educational background) as well as demographic factors (age, sex, family structure, etc.). A second main area of study is the relationship between fertility and similar 'explanatory' factors, including, in this case, the number and spacing of previous births. Study of changes over time has long been recognised

as a key step to a fuller understanding of many demographic and medical problems. At the moment changes over time are recorded at birth and death registration at in censuses and surveys only by a very limited number of retrospective questions, so that the statistical analyses hitherto carried out on OPCS data have been largely 'cross-sectional'. To carry out the new study the records held by OPCS of successive events occurring to a 1 per cent sample of the population will be collated to yield the desired statistical analyses. No new collection of information from the public will be required; indeed, it may prove possible, as a result of the studies, to omit from future censuses and surveys questions which might otherwise be included. The cohort methods underlying the new study are widely used by academic workers in many fields, but have hitherto been employed only on a very small scale within OPCS.

The booklet, after discussing in some detail the need for relating events occurring at different stages in the life-cycle, defines the scope of the study, and outlines the methods. It also sets out the arrangements for maintaining the confidentiality of the records used in the studies.

#### Reference

*Studies on Medical and Population Subjects No. 25, Cohort Studies: New Developments* (HMSO) January 1973 (Price 31½p net).

### 1966 Census of Population in England and Wales

The Government Social Survey (as it then was) carried out a post-enumeration study of the 1966 Sample Census. The objective was to assess the total error which might occur in the published tables and to find out how, why and at what stage any errors arose. The report on this quality check has now been published and should be of interest both to those concerned with the general problems that arise in a form-filling census, and to those who are concerned with the possible deficiencies of any specific table or classification in the 1966 Census.

This post-enumeration study was carried out by revisiting a sample of some five thousand addresses drawn from the Sample Census itself and interviewing the householders on the various Census topics. (The question of how complete the coverage of the Census

had been dealt with in a separate enquiry not here reported on.) The report begins by giving an account of the 1966 Sample Census (in England and Wales) and of the post-enumeration study. The detailed discussion of the results of the study follows, and there are sections on the enumerators themselves and on the general conclusions derived from the study. An Appendix includes copies of the forms used in the Sample Census and in the post-enumeration study, the Census enumerators' instructions and specimen pages of the 1961 and 1966 Census Enumeration Record Books.

#### Reference

*A Quality Check on the 1966 Ten Per Cent Sample Census of England and Wales* by Percy Gray and Frances A. Gee (HMSO) December 1972 (Price £2.30 net).

### 1971 Census of Population in England and Wales: publication programme

The Advance Analysis was completed with the publication of the Great Britain summary in November 1972. This volume contained analyses of the population, down to regional or sub-regional levels, by age, sex, marital status, size of household, country of birth, and economic activity under four headings (working, active not working, students, retired and others inactive). Publication of the County Reports, which give final census figures for the topics coded 100 per cent, is continuing and is expected to be completed in the spring of 1973.

Publication of the 'hard to code' topics which are coded for a 10 per cent sample – see *Statistical News* 12.14 – is expected to begin in the latter half of 1973. Prior to this it is intended to publish an analysis of a one per cent sample of households and persons in institutions. This volume will contain tables for Great Britain, its constituent countries and in a few cases at regional level. Topics will be age, sex, marital status, economic activity, including occupation and industry, country of birth, parents' countries of birth and date of entry to UK; the population of institutions; households and families by structure and by their economic characteristics.

The small area statistics, or 'Ward Library', for the 100 per cent topics are being produced as a part of the processing for the County Reports, and so should also be completed by the first half of 1973. The rounding procedure adopted for these statistics may be of some general interest. *Statistical News* 16.16 explained that all figures in the County Reports would be rounded to the nearest five on confidentiality grounds. To

round small area statistics in the same manner would however be undesirable because of the large percentage error introduced; also errors might accumulate when statistics are aggregated to *ad hoc* areas. So to preserve the value of the small area statistics, as well as assuring confidentiality, these statistics will be modified by the addition to each non-zero cell in the tables of +1 or -1 or zero, according to a quasi-random pattern. These patterns are such that the adjustments within a single enumeration district will tend to cancel on aggregation as also will the adjustments to any individual cell when accumulated through a number of enumeration districts. Totals within an enumeration district will be obtained by addition of the component cells. Ward, civil parish and other higher level tabulations will be obtained by adding together the unadjusted figures from the constituent enumeration districts and then modifying aggregated figures as above, thus minimising the distortion introduced by the adjustment procedure. Additional safeguards are that the population tabulations for enumeration districts with under twenty-five persons will be restricted to a count of persons by sex and the housing tabulations for enumeration districts with under eight households will be restricted to a count of the total number of households. Where the data are restricted in this way the figures will not be modified. Further details of the small area statistics are given in the Census Information Papers 3, 4 and 5, available from Customer Services, OPCS, Titchfield, Fareham, Hampshire, PO15 5RR, or telephone Titchfield (032-944) 2511 extension 296 or 260.

### Population estimates for 1972

Estimates of Home population for each local authority area, standard region and conurbation at 30 June 1972, and estimates of Home population classified by sex and age for England and Wales at 30 June 1971 and 30 June 1972 are published in *The Registrar General's Annual Estimates of the Population of England and Wales and of Local Authority Areas, 1972*. These estimates take account of the early results of the 1971 Census but are likely to be revised when fuller data become available.

The provisional mid-1972 estimate of the Home population of England and Wales is 49,029 thousand, an increase of 214 thousand or 0.4 per cent over the mid-1971 estimate. This increase compares with an annual increase of about 260 thousand or 0.6 per cent in the decade 1961-71.

#### Reference

*The Registrar General's Annual Estimates of the Population of England and Wales and of Local Authority Areas 1972* (HMSO) December 1972 (Price 20p).

## Regional population projections, mid-1971 based, England and Wales

The most recent *Registrar General's Quarterly Return for England and Wales* contains population projections for various years up to 1991 for the nine standard regions of England and Wales, together with a note on the assumptions made. The projections are a regional analysis of the mid-1971 national projections (see *Statistical News* 19.20) and therefore take into account the preliminary results of the 1971 Census of Population. Regional differentials in mortality and fertility are incorporated, as well as regional net migration assumptions. The projections supersede the 1969 based regional projections. For the first time concurrent projections are published for the three main divisions of the South East Region, namely the Greater London Area, the Outer Metropolitan Area and the Outer South East.

The projected population of each region increases over the 20-year period. While the largest region, the South East, shows the greatest absolute growth from 17.3 million in 1971 to 18.5 million in 1991, its proportionate increase, at 7.4 per cent, over the 20-year period is slightly less than the national average of 8.5 per cent. Within this region the population in the Greater London Area falls from 7.4 million to 6.1 million but this is more than offset by rises in both the Outer Metropolitan Area from 5.3 to 6.8 million and the Outer South East from 4.5 to 5.6 million.

The largest proportionate increases in population are in those regions with an assumed inward balance of migration. These are East Anglia – a projected rise of 22 per cent in the 20-year period – and the East Midlands – one of 17 per cent. In both cases part of the growth up to 1981 is attributable to planned over-spill schemes. The population of the South West Region, which attracts retired people, also rises at a rate greater than the national average.

Conversely in other regions the natural increase within the projected growth of population is partly offset by net outward migration. This is true for the North, Yorkshire and Humberside and North West Regions and for Wales, all of which have growth rates below the national average and all of which have been losing population, through the process of migration, and, with the exception of Wales, have been assumed to continue to lose population.

For further information please contact Mr. M. Milner at 01-836 2407 ext. 8203.

### Reference

*Registrar General's Quarterly Return for England and Wales No. 495, Quarter ended 30th September 1972* (HMSO) January 1973 (Price 23p).

## 1971 Census of Population in Scotland

### 1971 Census

Most of the county reports on the 1971 Census have now been published. The supplementary set of small area statistics for enumerators' districts and their aggregates to burgh wards, county electoral divisions and local authority areas, are available for most of Scotland. The standard small area statistics may be obtained from:

Customer Services  
GRO for Scotland  
Ladywell House  
Edinburgh  
EH12 7TF

### Population census field tests

A field test of possible future census methods was carried out in October 1972. A householder-marked form for direct computer reading, stratified area sampling and form allocation according to householders day of birth were among the items tested. The voluntary response from present households was 88 per cent.

### Population and vital statistics: Scotland

The Registrar General's annual report for 1971 was published in December. Two new tables classify divorces by the parties' ages, divorce grounds and duration of the marriage, for civil marriages and marriages of certain religious denominations. The development of suitable tables on divorce is still being investigated, and a supplementary section gives the results of a study of divorces in 1969 and remarriages within a year of divorce. Graphical presentation has been introduced to give perspective to changes in a few important demographic items.

### Reference

*Annual Report of the Registrar General for Scotland 1971: Part I Mortality Statistics* (Price £3.90 by post £4.15); *Part II Population and Vital Statistics* (Price £1.45 by post £1.54) (HMSO) December 1972.

## HEALTH AND SOCIAL SECURITY

### Health and personal social services

The fourth in the series of annual publications previously issued as the *Digest of Health Statistics*, is now available. Its title, now *Health and Personal Social Services Statistics, 1972*, was expanded to reflect arrangements resulting from the Local Authority Social Services Act 1970. The aim of the series is to give the salient statistics for health and closely related social services in the form, usually, of ten year trends together with the earliest year after the inception of the National Health Service for which figures are available. Most of

the statistics relate to England and Wales but summary tables for Great Britain have been included.

Further information regarding the publication can be obtained from Branch SR1, Department of Health and Social Security, 14 Russell Square, London WC1B 5EP (Tel: 01-636 6811 ext. 273).

#### Reference

*Health and Personal Social Services Statistics, 1972* (HMSO) January 1973 (Price £1.85).

### Occupational Pension Schemes 1971

The report on the fourth survey by the Government Actuary on occupational pension schemes was published in November 1972. Previous surveys appeared in 1958, 1966 and 1968. This latest survey, which covers public sector as well as private sector employees, showed that eleven million people in the United Kingdom, or about one-half of all the employees in this country, are members of schemes. The number of members had fallen since 1967, partly due to a reduction in the size of the labour force. These results broadly confirm the results of the New Earnings Survey 1970, which had indicated a lower number of members than was shown for 1967 in the Government Actuary's Third Survey. Organisations employing nearly twenty-one million people, a high proportion of the total labour force, were estimated to have pension schemes, but nearly ten million of their employees did not qualify for admission for a variety of reasons. Five million were ineligible because of the character of their work, and three and a half million were waiting to join the scheme, being currently too young or too new to the job to qualify.

The report gives a detailed analysis of the features of occupational pension schemes, and explores the differences that exist between schemes in the public and private sectors of the economy, between the provisions for men and women, and those for staff and manual employees. The scale of pension provision has increased considerably particularly for non-manual staff and, for this and other reasons, the income, expenditure and net investment of the pension movement have all grown rapidly.

Benefits related to final pay have, in some schemes, replaced provisions based on average pay throughout service, or altogether independent of pay, and there has also been a rise in the rate at which pension accrues. Better widows' benefits, fuller facilities for the preservation of pension on change of employment and regular augmentation of pensions after retirement have been other forms of improvement noted in the

survey. Rates of contribution by members and by employers have generally increased relative to pay to match the improved benefit provision. One-quarter of members do not pay any contributions, the remainder paying an average of over 5 per cent of their salary towards their occupational pension.

In 1971 over a million members of occupational pension schemes changed their employment. Nearly 70 per cent received a refund of their contributions (whether or not an alternative benefit was available) and 20 per cent received no benefit at all, so that only about 10 per cent of members received the benefit of a transfer payment or a preserved pension.

The survey was carried out by a sample enquiry of private sector employers, but the public sector which is covered by a few schemes, some extremely large, was dealt with on a 100 per cent basis. A list of private sector employers for enquiry was prepared by choosing a sample of 1 in 4,000 employees from national insurance records, from which the address of their employers could also be obtained. The information listed was the employer's address, and the sex of the individual sampled. Public sector employments were removed from the list. Employers were asked for information about the whole of their work force and all their pension schemes, that is it was the employer and not the individual employee originally sampled who was treated as the unit of survey. In this way, employers were chosen for enquiry with a probability proportionate to the size of their work forces. Where several employees of the same firm were sampled, only one enquiry was sent, and one reply might subsume a number of sample numbers. The rating-up methods, which are fully described in the report, allowed appropriately for this. Response was voluntary, and care was taken to preserve the confidentiality of the information given. In terms of the number of individuals sampled, the response rate represented 67 per cent of the effective sample.

#### Reference

*Occupational Pension Schemes 1971, Fourth Survey by the Government Actuary* (HMSO) November 1972 (Price 47p net).

### Incapacity statistics

The method by which statistics of certified incapacity for work are obtained by the Department of Health and Social Security from claims to sickness and injury benefits under the National Insurance Acts was described in *Statistical News* 5.14.

The tables for the period June 1970 to May 1971 are now available. Details can be obtained from the Department's Statistics Branch at 10 John Adam Street, London WC2N 6HD.

### Family income supplement – number of recipients

A Parliamentary Question on 30 November asked, for each week since 1st January 1972, what were the total number of households in receipt of family income supplement, the percentage which each of these figures represented of the total estimated to be eligible, the number who in that week were in receipt for the first time of family income supplement, the number who in

that week entered a second or further period of receipt following a successful reclaim and the number who in that week ceased to be in receipt.

In a written answer Mr. Paul Dean said that information in the form requested is not available for the period before April 1972, but can be provided on a monthly basis for later periods. Following is the available information:

#### (1) JANUARY–MARCH 1972

<i>Week ending</i>	<i>Number receiving FIS</i>	<i>Awards expiring*</i>	<i>Awards – new or following a break in payment †</i>	<i>Renewal awards – continuous with previous award †</i>
7th January ... ..	66,000	1,300	980	530
14th January ... ..	66,000	1,200	1,010	750
21st January ... ..	66,000	1,200	1,200	1,050
28th January ... ..	68,000	1,100	1,280	1,300
4th February ... ..	67,000	2,200	1,300	1,870
11th February ... ..	65,000	5,700	1,390	2,170
18th February ... ..	62,000	5,800	1,470	2,330
25th February ... ..	60,000	5,000	2,070	2,260
3rd March ... ..	59,000	3,900	2,120	2,160
10th March ... ..	58,000	3,700	1,960	2,500
17th March ... ..	59,000	3,000	2,140	2,460
24th March ... ..	59,000	2,900	2,560	2,310
31st March ... ..	60,000	3,100	1,610	1,580

#### (2) APRIL–SEPTEMBER 1972

<i>FIS pay day</i>	<i>Number receiving FIS</i>	<i>Awards expiring*</i>	<i>Commencements of awards on first claims</i>	<i>Commencements of awards on second and later claims</i>
			(in 4–5 weeks to date shown)	
25th April ... ..	65,000	10,600	28,800 ‡	
30th May ... ..	84,000	10,500	11,000	5,500
			(estimated)	(estimated)
27th June ... ..	87,000	7,600	6,200	4,200
25th July ... ..	91,000	6,500	6,000	4,700
29th August ... ..	87,000	19,900	4,300	11,200
26th September ... ..	84,000	13,700	3,600	7,800

\*i.e. payments ceasing during the period shown, whether renewed or not.

† Payments resulting from these awards did not normally commence in the same week as the award was made.

‡ Separate figures of first and later awards not available.

Take up is about half the number estimated to be eligible (three-quarters in the case over awards of £2); periodic estimates of the number eligible are not available.

#### Reference

*Hansard*, Volume 847, columns 270–3.

### Attendance allowance – analysis of recipients

The following information on those in receipt of the attendance allowance was given by Sir Keith Joseph in reply to a Parliamentary Question on 18 December 1972 (*Hansard*, Volume 848, columns 284–6). Numbers of people receiving attendance allowance on 6th

October, the latest date for which figures are available, are set out in the table below giving a breakdown by age, sex and region. Details of income are not available as this is not a means-tested benefit. Following is the table:

Age Last Birthday	Sex	Northern	Yorkshire and Humber-	East Midlands and East Anglia	London North	London South	London West	South Western	Wales	West Midlands	North Western (Manchester)	North Western (Merseyside)	Scotland	Totals
			side											
2-4	Male	173	219	212	182	236	200	149	114	212	179	154	225	2,255
	Female	147	181	203	185	211	172	103	108	168	111	144	170	1,903
5-9	Male	361	448	454	470	524	469	285	257	508	429	391	437	5,033
	Female	271	347	411	349	384	365	244	198	347	324	344	329	3,913
10-15	Male	301	359	391	319	344	275	208	218	375	322	343	366	3,821
	Female	220	273	275	258	263	220	159	182	233	264	231	280	2,858
16-19	Male	101	136	166	107	107	93	78	92	116	101	129	158	1,384
	Female	69	101	139	123	80	77	56	84	101	77	104	124	1,135
20-24	Male	104	117	137	109	92	70	79	104	106	106	132	101	1,257
	Female	93	93	115	104	88	66	76	88	83	85	104	112	1,107
25-29	Male	67	86	121	73	94	82	85	66	99	72	99	94	1,038
	Female	70	71	126	72	75	65	53	69	88	76	78	89	932
30-34	Male	58	60	81	51	52	36	39	59	69	43	39	60	647
	Female	46	69	85	47	64	47	52	67	44	53	52	74	700
35-39	Male	50	51	61	68	57	57	29	54	53	47	42	72	641
	Female	78	81	87	50	68	46	55	61	55	57	59	91	788
40-44	Male	55	70	62	61	65	64	39	55	38	47	38	62	656
	Female	65	71	110	72	82	81	61	59	55	67	46	79	848
45-49	Male	72	107	96	82	67	72	62	82	73	58	59	105	935
	Female	94	105	125	93	114	93	65	91	94	103	90	102	1,169
50-54	Male	92	100	127	97	133	71	87	94	92	87	82	121	1,183
	Female	118	129	184	133	191	145	93	110	92	124	131	139	1,589
55-59	Male	126	158	171	149	151	101	100	142	142	136	121	116	1,613
	Female	138	193	188	184	220	147	125	122	133	139	149	148	1,886
60-64	Male	196	251	289	232	276	193	172	221	207	176	192	212	2,617
	Female	209	244	308	212	303	189	175	194	187	205	184	180	2,590
65-69	Male	216	264	333	233	309	238	187	272	241	219	197	189	2,898
	Female	216	257	356	280	384	275	281	289	218	236	256	254	3,302
70-74	Male	154	221	291	215	269	193	190	208	169	152	174	134	2,370
	Female	260	306	434	291	456	294	287	333	245	267	284	267	3,724
75-79	Male	139	143	180	131	253	176	155	159	138	120	114	117	1,825
	Female	298	343	441	299	545	393	341	391	311	279	359	329	4,329
80-84	Male	80	92	150	108	189	127	138	128	92	63	91	98	1,356
	Female	307	423	532	395	792	543	492	474	380	355	496	373	5,562
85+	Male	99	124	185	135	287	189	159	151	114	89	110	166	1,808
	Female	506	685	1,031	841	1,797	1,211	961	794	671	605	805	683	10,590
Totals	Male	2,444	3,006	3,507	2,822	3,505	2,706	2,241	2,476	2,844	2,446	2,507	2,833	33,337
	Female	3,205	3,972	5,150	3,988	6,117	4,429	3,679	3,714	3,505	3,427	3,916	3,823	48,925

### Number of exceptional needs payments

In answer to a Parliamentary Question requesting a detailed regional breakdown of exceptional needs grants paid to claimants over each of the last five years

Mr. Paul Dean gave the information reproduced in the following table. Information about the number of people receiving payments is not available.

NUMBER (IN THOUSANDS) OF EXCEPTIONAL NEEDS PAYMENTS 1968-72 (OCTOBER)

Region	1968	1969	1970	1971	1972 (January-October only)
Northern ... ..	44.0	49.2	53.6	54.7	58.5
Yorkshire and Humberside ... ..	44.6	48.0	55.5	54.2	56.7
East Midlands and East Anglia ... ..	29.0	28.9	32.3	33.2	37.4
London North ... ..	41.2	40.8	45.2	46.0	50.2
London South ... ..	36.1	40.0	45.8	43.9	46.5
London West ... ..	24.9	26.2	30.6	33.0	35.8
South-Western ... ..	34.2	33.8	37.5	36.7	38.6
West Midland ... ..	44.6	46.8	55.0	58.7	65.0
North-Western Manchester ... ..	29.5	34.4	43.4	48.8	54.2
North-Western Merseyside ... ..	35.8	40.8	48.0	49.9	54.3
England - Total ... ..	364.0	388.9	446.8	459.2	497.2
Wales ... ..	49.4	51.4	47.6	41.2	40.7
Scotland ... ..	56.9	60.1	65.4	75.4	87.1
Great Britain - Total ... ..	470.3	500.4	559.9	575.8	625.0
Period - months ... ..	12	12	12	12	10

Reference

Hansard, Volume 845, columns 279 and 280.

## HOUSING AND CONSTRUCTION

### Housing surveys

Number 8 in the series of Housing Survey Reports published by the Department of the Environment gives the results of the West Yorkshire Movers Survey 1969. This survey, which followed closely on the West Yorkshire Conurbation Housing Survey (Housing Survey Report No. 7 – see *Statistical News* 17.23) was designed to investigate further the character of residential mobility, and contained much that was of an experimental character. The survey was designed and supervised by the Statistics Branch of the former Ministry of Housing and Local Government, the interviews carried out by the British Market Research Bureau and the data processed and the report prepared by the Centre for Urban and Regional Studies, University of Birmingham.

This report, which includes some 40 statistical tables and a brief commentary, gives the results of interviews with 3,300 households who had moved between October 1967 and October 1968 into housing in an area based on the West Yorkshire conurbation but extended, mainly to the north and east, to encompass what was considered to form a single housing market area.

The characteristics of households and their accommodation in the movers sample are compared with those of the general sample (Housing Survey) and there follows a similar comparison of new and continuing households in the sample of movers. Analyses are then presented, for households of various tenures, ages and incomes, of the action taken in seeking accommodation, the type of accommodation sought and the reasons for moving. The accommodation from which households moved is compared with that to which they moved in respect of such matters as tenure, age and availability of amenities. The next two chapters deal separately with owner occupiers and with tenants, with particular attention to house prices, mortgage advances and payments in the first case and rents in the second. Finally information is given about expressed intentions about future moves.

#### Reference

Housing Survey Report No. 8, *West Yorkshire Movers Survey 1969* Obtainable only from the Department of the Environment, 83/91 Victoria Street SW1H 0E2) February 1973 (Price £1.22 net).

### Construction industry – study of cost of completing inquiries

With the agreement of the Standing Consultative Committee on Construction Statistics the Department of the Environment (DOE) is conducting a trial to dis-

cover the time and cost to contractors involved in completing the short-period sample inquiries for the construction industry. These inquiries, into new orders (monthly), employment (monthly) and output (quarterly), were described in *Statistical News* 15.6. The exercise will also test whether a new type of construction output series will affect the form-filling burden. About fifty firms of all sizes are taking part on a voluntary basis.

The main new proposal is to collect information on new work output from a sample of construction projects in progress rather than taking a sample of firms. Contractors would be asked to declare the total value of work done to the end of each quarter on projects previously reported to DOE on new orders forms; the present inquiry asks for the output of the firm itself by five types of new work and three types of repairs and maintenance. This involves a calculation by main contractors to deduct the value of work given out to subcontractors, which is often not known to any degree of precision. Besides producing more accurate output statistics the advantages of a project-based series would be the availability of figures on a regional basis, a more detailed type of work breakdown and a reduction in the number of forms going to small firms and subcontractors. The information required also corresponds more closely to the way in which most construction firms keep their records.

It is hoped to give further information on the project-based output series in a future issue of *Statistical News*. Meanwhile, inquiries can be made to Department of the Environment, Room S11/17, 2 Marsham Street, London SW1P 3EB (Tel: 01-212 8406).

## MANPOWER AND EARNINGS

### Unemployment Statistics: Report of an Inter-Departmental Working Party

The rise in the level of unemployment in recent years has stimulated a considerable amount of comment, much of it critical, about the basis and nature of the official monthly unemployment statistics. The central question has been whether the published statistics accurately reflect the 'true' unemployment position. Some have concluded that the published figures are too high, and others that they are too low. A Working Party of officials, including representatives of the Department of Employment, HM Treasury, the Central Statistical Office, the Department of Health and Social Security, and the Department of Trade and Industry, was set up at the request of the Prime Minister and adopted as its terms of reference:

To consider whether the statistics which are at present collected relating to the registered unemployed, and others in the population of working age who are neither in employment nor registered as unemployed, need to be further subdivided, supplemented or presented differently in order to provide a more accurate indication of the real level of unused labour resources in the economy.

The Report of this Working Party was accepted by Ministers and published as a White Paper (Cmnd 5157) on 20 November 1972.

After considering the legal and administrative framework within which these statistics are collected (particularly the constraints imposed by various legal obligations to register for employment in order to receive social security benefits) and their use as an indicator of both economic conditions and social distress, the Working Party's main conclusions and recommendations were:

- (i) *The temporarily stopped* (who are laid off by their employers and still have jobs to which they intend to return, but who register for benefits) are different from the main body of unemployed and their numbers should be presented quite separately.
- (ii) *The presentation of unemployment statistics should be simplified.* The terms 'total register' and 'wholly unemployed' should cease to be used. Instead, there should be a single aggregate - 'the unemployed' - which should not include the temporarily stopped. School-leavers and adult students seeking vacation work should continue to be identified separately within the total unemployed, and excluded from the coverage of the seasonally adjusted series which provides the best indicator of the trend of unemployment. Articles describing longer-term trends and the structure of unemployment should be published from time to time.
- (iii) The *short-term unemployed* cannot be isolated in the statistics. However, data are available about the number on the register at any time who have been registered for four weeks or less and about the large monthly flows through the register and these should be publicised.
- (iv) Those groups alleged to be not *genuinely seeking work*, and those *not seeking permanent employment* (except students) cannot be distinguished within the register, nor can a group of 'unemployables'.

- (v) It is desirable to continue to exclude from the unemployment statistics those *severely disabled persons* on the disabled persons register who are unlikely to obtain work except under special sheltered conditions and to continue to present their numbers separately.
- (vi) The Department of Employment proposes to conduct experiments to show whether a special resettlement service should be developed for *socially disadvantaged people*.
- (vii) A further Working Group should make detailed objective studies of the *characteristics of the unemployed* from available data, and consider how further necessary data might be obtained.
- (viii) Many of the people described in the 1971 Census of Population as either seeking work or waiting to take up a job, but not registered as unemployed, are only marginally attached to the labour force and are not taking very active steps to find a job.
- (ix) The possibility of instituting *regular interview sample surveys* to supplement existing statistics (and in particular to provide estimates of those seeking work but not registered as unemployed) should be considered in the light of experience gained both from participation in the 1973 EEC labour force survey (see *Statistical News* 20.42) and from use of results from the General Household Survey (see *Statistical News* 16.7).
- (x) *The effect of forthcoming administrative and legal changes upon the unemployment figures must be kept under review* throughout the planning stages.

Many of these recommendations were first implemented in the press notice containing the November 1972 figures.

#### Reference

*Unemployment Statistics: Report of an Inter-Departmental Working Party Cmnd 5157 (HMSO) November 1972 (Price 24p).*

#### Unemployment flow statistics

An article about the numbers of adults who join and leave the unemployment registers at local offices of the Department of Employment in Great Britain was published in the September 1972 issue of the Department's *Gazette*. These flow statistics have been compiled regularly for several years, primarily for managerial purposes in administering the Employment Service. Although the coverage of these statistics, presented for the first time in the *Gazette* article, is not precisely the same as for the monthly counts from which the regular monthly unemployment statistics



are derived, it is reasonable to assume that they reflect the flows which can be associated with the published statistics for unemployed adults (excluding the temporarily stopped).

Flow statistics were given for the period January 1967 to July 1972. They show that between 300,000 and 400,000 adults join and leave the register each month, including many who both join and leave during the same month. After adjustments have been made for variation in the number of days covered by the monthly flow figures and for seasonal movements, they show relatively small fluctuations over the period examined. Moderate differences between the inflows and outflows yield net increases or decreases in the numbers of registered unemployed adults between successive counts.

#### Reference

*Department of Employment Gazette* September 1972 pages 791 to 795 (HMSO Price 52½p).

## Manpower Studies

### No. 11 Catering

This report deals with uses of manpower in the major sectors of the catering industry other than hotels. It concludes that in both the commercial and the welfare sectors there will be a demand for more workers. The need of an efficient and satisfied labour force will require training planned to meet the industry's needs, and effective manpower planning. Statistical data about the industry is appended to the report.

### No. 12 Computers in Offices 1972

This report up-dates the 1964 survey described in Manpower Studies No. 4 and sets out the current position of the use of computers in offices and provides forecasts for five to ten years ahead. It concludes that electronic data processing (EDP) has not caused widespread major repercussions on office personnel, and that in thirty years time EDP will take over only 15 per cent of all office work. The report contains statistics showing the proportion of clerical workers in relation to all workers in Great Britain and details relating to EDP.

#### References

Manpower Studies No. 11, *Catering* (HMSO) November 1972 (Price £1.00 net).

Manpower Studies No. 12, *Computers in Offices 1972* (HMSO) December 1972 (Price 55p net).

## Regional earnings

The regional statistics of gross annual earnings produced by the Department of Health and Social Security from information contained in the records of

persons covered by the income tax PAYE scheme through which national insurance graduated contributions are collected were described in *Statistical News* 1.22, 7.32 and 15.17. The tables for the 1970-71 tax year are now available and summaries have been published in the 1972 edition of the *Abstract of Regional Statistics* (see page 20.43). Further details can be obtained from the Department's Statistics Branch at 10 John Adam Street, London, WC2N 6HD.

## New Earnings Survey 1972

Results of this sample survey of the earnings and hours of employees in employment in Great Britain in April 1972 have been published in instalments in the *Department of Employment Gazette* from November 1972 onwards. They are based on returns relating to 175,000 individual employees, including about 130,000 for whom returns were also obtained in the 1971 survey. In due course a comprehensive report on the 1972 survey will be published. For further information telephone Watford (01-92) 28500 ext. 216.

## Earnings surveys during 1973

### General programme

Following a general review, in consultation with the Confederation of British Industry, the Trades Union Congress and others (*Statistical News* 16.21), the programme of earnings surveys being carried out during 1973 by the Department of Employment is to follow the previous year's pattern but with some minor modifications to the New Earnings Survey.

### New Earnings Survey 1973

A further survey in the series, begun in 1968 and conducted annually since 1970, is being carried out by the Department of Employment. Information about the earnings and hours of a sample of employees in employment in Great Britain will be obtained for a pay-period in April 1973. The aim is to meet the essential statistical requirements of the government and other major users with the minimum of inconvenience to employers. To this end a sample of about one per cent of employees is used and the form of questionnaire is kept as short and as simple as practicable. Various improvements have been made in the layout of the form, taking last year's experience into account, and some limited additional information is being sought this year. The changes will, *inter alia*, provide information on some components included in the employee's total earnings for the survey period. In the 1971 and 1972 surveys, overtime earnings were the only component separately reported. Another new

question is to distinguish groups of employees affected by collective bargaining at national and other levels. The special occupational classification system used in earlier surveys is being discontinued. The job title and description of the main duties of the employee will be used for classification to the new List of Key Occupations for Statistical Purposes (KOS). It is expected that the results will become available from November 1973. For further information telephone Watford (01-92) 28500 ext. 216.

## INDUSTRIAL STATISTICS

### Recent improvements to the Index of Industrial Production

During the past eighteen months, a number of changes have been made in the calculation of the Index of Industrial Production. In some cases, unsatisfactory indicators have been replaced by more reliable ones, and in others changes have reduced the month-to-month fluctuations in the index and its proneness to revisions. The use of a computer for the basic calculations has been carried further which, in particular, has permitted better estimates to be made for missing series.

The major change, made in October 1971, was to derive the early estimates for the engineering trades (SIC Orders VII to IX) by a method of trend projection from past figures, and to use these estimates to derive the monthly path of the output of these trades when, later, the firm quarterly estimates become available. This has provided a much smoother series (and one likely to be nearer to the production of these trades than the deliveries indices previously used), and has resulted in fewer and smaller revisions to the provisional estimates. (For a fuller description of the method see *Trade and Industry*, 14 October 1971.) The monthly enquiry into these industries has now been replaced by a more comprehensive enquiry but the trend estimation technique continues to be used.

*Iron and Steel* – Order VI MLHs 311, 312. Production in these industries is now measured by crude steel production, adjusted for changes in stocks of semi-finished steel, rather than working from deliveries of finished steel and adjusting for changes in stocks of the finished product. This is considered likely to be more accurate and has the advantage that the index can be calculated much earlier. The new index was incorporated in December 1972 and taken back to the beginning of 1972.

*Aerospace* – Order XI MLH 383. This is another industry where long production periods and high unit values give rise to a lumpy deliveries series. In this case a regression relationship has been established between man hours worked in the industry and production, and is used to produce a first estimate for each month. The average level of the index for the calendar year is corrected to that of the annual index based on deliveries and work done. The new method was introduced in March 1972 with revised figures going back to January 1971.

*Miscellaneous metal manufactures* – Order XII MLHs 393, 394, 395, 399. The output of these industries has been measured by the quantities of metal used by them. In June 1971 these were replaced by indicators of turnover, deflated by the appropriate price indices. The new series were incorporated into the index of production back to the beginning of 1970.

*Water Supply* – Order XXI MLH 603. The output of this industry had been represented by employment, but is now measured by the supply of water. The change was made in June 1972 and taken back to the beginning of 1971.

*Spirit blending* – Order III MLH 239.1 (part). This industry is an extreme example of the situation where, because of the long duration of the productive process, sales of the product do not bear a close relation to production in the same period. Indicators relating to sales were replaced in December 1971 by a single series – the level of stocks held in bonded warehouses. This provides a better measure of value added in the industry which is particularly associated with the maturing of spirit. The revisions were carried back to the index for January 1971.

In addition to the changes listed in this article, new series are being introduced based on the new quarterly industrial enquiries (see *Statistical News* 15.1). At the end of 1972 12 per cent of the weight of the index was based ultimately on these enquiries. Their incorporation into the index will continue over the next year or so. When the Index of Industrial Production has been rebased on the year 1970, and it is hoped to publish a revised version of the CSO guide to the index in the *Studies in Official Statistics* series.

### Early estimates of vehicle production

As a very small number of contributors to the monthly statistics of car and commercial vehicle production account for a large proportion of output, it was decided early in 1972 to approach the major manufacturers to

see if they could provide an estimate of their output within a few days of the end of each four or five week production period. Having established that they could, an examination was made of the proportions of total production accounted for by these contributors in each month since the beginning of 1970 to provide a basis for estimating total industry output. For cars the manufacturers concerned account for about 98 per cent of production and for commercial vehicles about 93 per cent. This preliminary return asks only for total production, not for a split between home and export markets as provided in the more detailed statistics received later.

Production figures estimated by this method have now been published by press notice for the six months June to November 1972 between six and ten days after the end of the production period. This is about two and a half weeks before the detailed press notice.

The table below gives a comparison between the preliminary estimates and the final figures. For cars, with the exception of October, the main source of difference to date has been caused by revisions in the basic figures received from contributors rather than by the process of estimation. In commercial vehicles, where the share of the larger manufacturers is not quite as big, there is more room for error in estimating the percentage coverage and such errors of estimation account for practically all the difference in October and November and about half of the difference in August. The remaining differences are accounted for by revisions received.

*Comparison between estimated and final production figures*

				Estimated	Final	Difference	
				Thousands			as % of final
<b>Cars</b>							
1972	June*	...	...	195	197	-2	1
	July	...	...	102	102	-	-
	August	...	...	126	119	+7	6
	September*	...	...	168	176	-8	5
	October...	...	...	166	169	-3	2
	November	...	...	178	175	+3	2
<b>Commercial vehicles</b>							
1972	June*	...	...	40.0	41.2	-1.2	3
	July	...	...	21.8	22.0	-0.2	1
	August	...	...	23.0	21.9	+1.1	5
	September*	...	...	36.5	36.4	+0.1	-
	October...	...	...	38.0	36.6	+1.4	4
	November	...	...	41.6	41.0	+0.6	1

\*5 week periods; others 4 weeks.

For further information please contact Branch EcS3A, Department of Trade and Industry, Dean Bradley House, Horseferry Road, London SW1 (Telephone 01-799 5688 ext. 34).

**Commodity analysis of the turnover of large retailers**

An analysis of the commodities sold by large retailers (those with a turnover exceeding £1 million in 1966), covering the period 1966 to 1970, was published in *Trade and Industry* on 14 December 1972. This updated an earlier article, covering 1966 to 1969, which appeared in *Trade and Industry* on 30 June 1971. The information used is derived from the Annual Inquiries into the Distributive and Service Trades for 1967 to 1970, conducted by the Business Statistics Office, and from the 1966 Census of Distribution. Information from the Census showed that in 1966 the large retailers covered by the figures accounted for over 40 per cent of all retail trade. Some of the main features of the analysis are outlined below.

Between 1966 and 1970, the value of sales of food by large retailers increased by about one-third; the share going to the large retail co-operative societies showed a broad decline. Over this same period, the value of sales of alcoholic drink by large retailers virtually doubled; this was a much faster rate of growth than that of consumers' expenditure on alcoholic drink. The value of sales of cigarettes and tobacco by large retailers was up by over 50 per cent, although the increase between 1969 and 1970 was relatively small. The share of sales of cigarettes and tobacco going to food shops rose from about 10 per cent in 1966 to 30 per cent in 1970 while the share going to retail co-operative societies fell from over 50 per cent to below 40 per cent.

Between 1966 and 1970, sales by large retailers of goods and services other than food, alcoholic drink and tobacco rose by 30 per cent. For the two principal commodity groups identified in the summary analysis - clothing and footwear, and electrical appliances, furniture, etc. - the main changes in the pattern of sales by large retailers were falls in the shares going to the co-operative societies and increases in the shares of the specialist shops. The shares of the other kinds of business were fairly stable.

**1968 Census of Production**

Tables providing lists of the separate parts of the Report on the Census of Production for 1968 which had been published and were available from Her Majesty's Stationery Office were given in *Statistical News*, November 1971 (15.17), February 1972 (16.22), May 1972 (17.25), August 1972 (18.28) and November 1972

(19.26). The following table provides a list of further parts which have now been published. For further information telephone 01-866 8771 ext. 523.

*Available parts of the Report on the Census of Production for 1968*

<i>Report Part No.</i>	<i>Description</i>	<i>Standard Industrial Classification Minimum List Heading</i>
6	Petroleum and natural gas, salt and miscellaneous non-metalliferous mining and quarrying	104, 109(3), 109(4)
27	General chemicals (inorganic)	271(1)
28	General chemicals (organic)	271(2)
29	General chemicals (other than inorganic and organic)	271(3)
34	Synthetic resins and plastics materials and synthetic rubber	276
40	Formulated pesticides and disinfectants	279(4)
64	Industrial (including process) plant and steelwork	341
70	Scientific and industrial instruments and systems	354
79	Miscellaneous electrical goods	369
82	Motor vehicle manufacturing	381
93	Jewellery and precious metals	396
99	Spinning and doubling on the cotton and flax systems	412
100	Weaving of cotton, linen and man-made fibres	413
101	Woollen and worsted	414
108	Made-up household textiles and handkerchiefs	422(1)
113	Leather (tanning and dressing) and fellmongery	431
115	Fur	433
142	Printing, publishing of newspapers and periodicals	485, 486
143	General printing, publishing, etc.	489
151	Construction	500

This completes the list of industry reports which have been published. The following parts of the Directory of Businesses are now available:

<i>Report Part No.</i>	<i>Description</i>	<i>Standard Industrial Classification Order</i>
160	Directory of Businesses: Food, Drink and Tobacco	III
161	Directory of Businesses: Coal and Petroleum Products; Chemicals and Allied Industries	IV and V
162	Directory of Businesses: Metal Manufacture	VI
164	Directory of Businesses: Instrument Engineering; Electrical Engineering	VIII and IX
165	Directory of Businesses: Shipbuilding and Marine Engineering, Vehicles	X and XI
167	Directory of Businesses: Textiles	XIII
171	Directory of Businesses: Other Manufacturing Industries	XIX

**Changes in the annual censuses of production**

In 1971 the Business Statistics Office conducted a Census of Production for 1970, the first in a series of annual censuses of production which form part of the new integrated system of industrial statistics being introduced by the Government Statistical Service.

The censuses provide statistics of purchases, sales, stocks, capital investment and employment of establishments engaged in manufacturing, mining and quarrying, electricity, gas and water supply. The arrangements and the questions for the Censuses for 1971 and 1972 are the same as for the 1970 Census.

The entry of the United Kingdom into the European Economic Communities will require changes to be made in the coverage and in the information to be obtained in the annual censuses for 1973 and subsequent years. These changes will be necessary to provide information which member countries must give the Statistical Office of the European Communities under directives of the Council of the European Communities which require member countries to conduct annual inquiries into capital expenditure (Directive 64/475/CEE) and industrial activity (Directive 72/221/CEE). The directives have legal force in member countries.

The first change is in the coverage of the census. Previously, census returns were required from establishments employing twenty-five or more persons except that in thirteen industries, where small firms made an important contribution to output, the coverage was extended to establishments with eleven or more employees. In the Censuses for 1973 to 1975 all establishments employing twenty or more will be required, in accordance with the EEC directive, to complete a questionnaire.

The questionnaire for the 1973 Census for establishments employing between twenty and ninety-nine persons will be little different from that used in the Censuses for 1970 to 1972. New questions on payments to out-workers and the cost of goods bought for merchanting will be asked; but questions on transport costs will be discontinued for all but a few industries. Establishments with one hundred or more employees will also be asked the new questions on out-workers and merchant goods, but for these larger establishments there will also be additional questions on value added tax and the cost of non-industrial services. The questions which will be asked in the Census for 1973 will also be asked in the Censuses for the next two years, 1974 and 1975. An explanation of the changes and of the need for them, together with a list of the information to be collected, is being sent to firms within the scope of the Census.

The changes which the BSO are introducing into the annual censuses are the minimum necessary to meet legal obligations arising out of EEC membership. These have been discussed with the Census of Production Advisory Committee appointed under the

Statistics of Trade Act, 1947. If further information is required, please telephone Newport (0633) 56111 ext. 2366.

### Instrument engineering

The sales inquiries for the four industries of Order VIII of the Standard Industrial Classification forming part of the new system of industrial statistics were introduced by the Business Statistics Office with effect from the third quarter of 1971, and publication of the Business Monitors for the third quarter of 1972 affords a convenient opportunity of reviewing the first year of the new inquiries.

The Order comprises the manufacture of photographic and document copying equipment, scientific and industrial instruments and systems, surgical instruments and appliances, and watches and clocks. These are all precision industries of varying degree, but with the exception of the last-named, they were not separately distinguished by minimum list heading until the 1968 SIC. Because of this less detailed classification, the original short period inquiries which were conducted until mid-1971 into photographic equipment, scientific instruments, and watches and clocks, did not give full coverage of the industries as now defined and there was, moreover, an overlap with electronic instruments which were classified in a different part of the SIC.

The new inquiries ask for much more product detail than the old, in accordance with the wishes of the industries concerned, and in many cases, information is given for the first time. Despite the greater number of headings it is pleasing to record that the response to the inquiries has been good. This is largely due to the interest taken by the trade associations concerned.

The Business Monitors which publish the results of the new inquiries (P48, P29, P116 and P49) include tables of the relevant overseas trade statistics for the Order VIII industries. Exports and imports are shown in full detail and are congruent with the production headings. The availability of these more detailed analyses of sales, together with the related figures of exports and imports is helping to provide an up-to-date and fuller insight into this sector of manufacturing industry. As the new time series length with additional quarterly information, the first data will increasingly improve the interpretation and usefulness of the most recent statistics.

### Reorganisation of industrial statistics

The new system of quarterly sales inquiries will be extended in the first quarter of 1973 with the introduc-

tion of twenty new inquiries, bringing the total number operative to 151. Details of previous developments in the new system have been fully reported in earlier issues of *Statistical News*.

The industries covered by the new inquiries are:

- Stone and Slate Quarrying and Mining – MLH 102
- \*Chalk, Clay, Sand and Gravel Extraction – MLH 103
- Petroleum and Natural Gas – MLH 104
- Vegetable and Animal Oils and Fats – MLH 221
- Margarine – MLH 229/1
- Starch and Miscellaneous Foods – MLH 229/2
- Mineral Oil Refining – MLH 262
- Lubricating Oils and Greases – MLH 263
- \*†Hand Tools and Implements – MLH 391
- Wire and Wire Manufactures – MLH 394
- Cans and Metal Boxes – MLH 395
- Metal Windows and Door Frames – MLH 399/2
- Safes, Locks, Latches and Keys and Springs – MLH 399/3 and 4
- Needles, Pins, Fish-hooks and Other Metal Smallwares – MLH 399/8
- Domestic Gas Appliances – MLH 399/9
- Metallic Closures – MLH 399/10
- Metal Finishing – MLH 399/11
- Miscellaneous Textile Industries – MLH 429/2
- \*Abrasives – MLH 469/1
- Building Materials, etc. not elsewhere specified – MLH 469/2

\*These inquiries will replace existing quarterly inquiries into deliveries of china clay (MLH 103): sales of hand tools (MLH 391): sales of coated diamond and other abrasives (not bonded) (MLH 469/1).

†This inquiry will replace the existing monthly inquiry into sales of hand tools (MLH 391).

With four exceptions the inquiries for each of the above industries will cover all establishments with twenty employees or more. The exceptions are the petroleum and natural gas industry where coverage will initially be all licence holders and drilling contractors: stone and slate quarrying and mining; chalk, clay, sand and gravel extraction; and building materials, etc. not elsewhere specified where coverage will be eleven employees or more. The results of all inquiries will in due course be published on a regular basis in the Business Monitor series, subject to safeguards on confidentiality.

The following short period inquiries will continue:

- Chalk, Clay, Sand and Gravel Extraction – MLH 103
- Quarterly inquiry into sand and gravel production
- Petroleum and Natural Gas – MLH 104
- Monthly return of gas and condensates produced

Vegetable and Animal Oils and Fats – MLH 221  
Monthly inquiry into oilseeds and nuts crushed,  
crude oil produced and stocks of seed and oil  
Monthly inquiry into production, stocks and dis-  
posals of refined edible vegetable and marine  
oils

Margarine – MLH 229/1

Monthly inquiry into production of margarine and  
compound cooking fat and usage of raw materials

Starch and Miscellaneous Foods – MLH 229/2

Monthly inquiry into production of glucose and  
maize starch and intake of maize grain

Quarterly inquiry into production of coffee (regu-  
lar, dry and liquid) and usage and stocks of raw  
coffee

Mineral Oil Refining – MLH 262

Returns to the United Kingdom Petroleum Indus-  
try Advisory Committee

Lubricating Oils and Greases – MLH 263

Returns to the United Kingdom Petroleum Indus-  
try Advisory Committee

Metal Windows and Door Frames – MLH 399/2

Monthly inquiry into production, deliveries and  
stocks of metal windows, doors and curtain walling

Domestic Gas Appliances – MLH 399/9

Returns by members to the Society of British Gas  
Industries

Building Materials, etc. not elsewhere specified –  
MLH 469/2

Monthly inquiries into production, deliveries and  
stocks of slates; asbestos cement products; con-  
crete building blocks; and bricks (including sand,  
lime and concrete bricks).

The quarterly sales inquiry into the printing and  
publishing industries (MLHs 485, 486 and 489) which  
began at the end of 1968 will be revised and extended  
with effect from the first quarter of 1973, with addi-  
tional information on advertising revenue and the  
presentation of the results in three Business Monitors  
(one for each minimum list heading) instead of two  
at present. Coverage will be all establishments with  
twenty or more employees except for publishers and  
printer/publishers of books where coverage will be  
establishments with six or more employees.

Further information on government inquiries listed  
above can be obtained from:

Ministry of Agriculture, Fisheries and Food  
Statistics Division 1

Great Westminster House

Horseferry Road

London, SW1P 2AE

Tel 01-834 8511 ext. 501 for inquiries into MLHs  
221, 229/1 and 229/2.

Department of Trade and Industry  
Economics and Statistics Division 2  
Thames House South  
Millbank

London, SW1P 4QY

Tel. 01-222 7000 ext. 1228 for inquiries into MLHs  
104, 262 and 263.

Department of Trade and Industry  
Economics and Statistics Division 3

Dean Bradley House

52 Horseferry Road

London, SW1P 2AG

Tel. 01-799 5688:

ext. 104 for inquiries into MLHs 391, 394, 395,  
399/2, 399/3, 399/4, 399/8, 399/9, 399/10 and 399/11;

ext. 110 for MLH 429/2;

ext. 332 for MLH 469/1;

ext. 335 for MLHs 485, 486 and 489.

Department of the Environment

Statistics Division C

2 Marsham Street

London SW1

Tel. 01-212 8422 for inquiries into MLHs 102, 103  
and 469/2.

### Business Monitors

During the first half of 1973 responsibility for the com-  
pilation and publication of Business Monitors is to be  
transferred from the Department of Trade and Industry  
headquarters (Branch EcS3) to the Business Statistics  
Office (BSO) in Newport, Monmouthshire. An im-  
portant element in the Monitor output will be the  
quarterly Monitors which include the results of the  
'new system' quarterly inquiries into manufacturing  
sales. It is intended that additional information  
relating, for example, to trade, prices, employment and  
index of production, should be included wherever  
possible. With a view to improving the general appear-  
ance of Business Monitor publications the Monitor  
covers are being redesigned and a colour scheme is  
being introduced to distinguish Monitors of different  
periodicity. In addition, the coding scheme for Moni-  
tors (that is, the existing P numbers) is to be revised in  
order that users can identify more easily the relationship  
between Monitors covering the same census industry.  
From 1973 onwards virtually the entire statistical out-  
put of the BSO – including annual census results as  
well as monthly and quarterly publications – will  
appear in the Business Monitor series. Telephone  
enquiries to Newport (0633) 56111 ext. 2118 or 2120.

## TRANSPORT

### Road traffic censuses

A note in the November 1971 issue of *Statistical News* (15.20) about the periodic general road traffic censuses described the new series of counts which, starting in 1969, were designed to cover some 7,000 points on motorways, trunk roads and principal roads in Great Britain in the course of a four-year cycle.

The main August counts of the first cycle have been completed, leaving only the supplementary counts taken each April/May to be carried out in 1973. Results of the August counts in 1969, 1970 and 1971 are available; those for August 1972 will be available in March 1973. Details of the census can be obtained from:

- (i) Department of the Environment  
Directorate of Statistics – Road Traffic Census Unit  
St. Christopher House  
Southwark Street  
London, SE1 0TE  
Tel. 01-928 7999 ext. 2260 or 2189
- (ii) Scottish Development Department  
(Chief Road Engineer)  
43 Jeffrey Street  
Edinburgh, EH1 1DL  
Tel. 031-556 8433 ext. 493
- (iii) Welsh Office  
(Director of Highways, Roads Division)  
Graham Buildings  
Newport Road  
Cardiff, CF2 1YV  
Tel. 0222-40751 ext. 85

Copies of the results may be seen at the above offices, or at any Regional Office of the Department of the Environment. They are also available for purchase at a fee of £6 per annual volume.

## HOME FINANCE

### Money stock

A new regular table analysing quarterly changes in the money stock is introduced in the *Bank of England Quarterly Bulletin* for December 1972. By explaining changes in United Kingdom residents' deposits with the banking sector (the main component of the money stock) in terms of the banks' other liabilities and assets, and by further analysing bank lending to the public

sector, the table links changes in the broad version of the money stock ( $M_3$ ) with the public sector borrowing requirement, private sector (other than bank) purchases of public sector debt, bank lending to the private sector and external finance. It thus identifies certain areas of interest or influence within which the authorities may operate, and which are liable to affect the total of the money stock. The table also includes figures for domestic credit expansion. An introductory note explains the table and warns of some of the hazards in its interpretation.

Copies of the Bank's *Bulletin* can be obtained from the Economic Intelligence Department, Bank of England, London, EC2R 8AH.

### National balance sheets: a new analytical tool

The Bank of England have published a series of integrated quarterly balance sheet and flow accounts for the deposit banks as a group for the years 1963 to 1970. The figures, accompanied by detailed notes on definitions, sources and methods, appear in an article on national balance sheets in the December 1972 issue of the Bank's *Bulletin*.

The article sets out the case for the compilation of data on levels of assets and liabilities for the main sectors of the economy as a source for financial analysis complementary to that provided by flow of funds statistics. It explains certain general problems of compilation of such sector balance sheets and describes work done so far in the United Kingdom.

Offprints of the article and copies of the Bank's *Bulletin* may be obtained from the Economic Intelligence Department, Bank of England, London, EC2R 8AH.

### Yield curves for gilt-edged stocks

The Bank of England have completed a research project on the relation between yields and maturities of government securities, which is described in the December issue of the Bank's *Bulletin*.

Prices are thought to be determined by a mixture of investors' expectations, their attitudes to risk and their institutional requirements. Each investor is assumed to have a 'planning horizon' – somewhere between six months and three or four years; and he has expectations about future interest rates up to this horizon, that is over his 'decision period'. This implies an expected return – interest and capital gain or loss – on each stock over the decision period.

These considerations are used to construct a model for fitting to yields of actual stocks. After the parameters of the model have been estimated, a 'par yield

curve' is derived: this measures the yield for any maturity date of a hypothetical stock issued at par (100).

The new par yield curves replace the yield curves fitted by conventional statistical methods, which have been published in the Bank's *Bulletin* for the last five years. A corresponding new series of calculated yields at five, ten and twenty years will appear regularly in the Bank's *Bulletin* and in *Financial Statistics*.

Offprints of the Bank's article and copies of its *Bulletin* may be obtained from the Economic Intelligence Department, Bank of England, London, EC2R 8AH. For further information, write to J. P. Burman at the Bank.

## INTERNATIONAL

### Aid statistics

The seventh issue of the Overseas Development Administration annual publication *British Aid Statistics*, published last December, provides details of British official economic aid to developing countries for the years 1967 to 1971 as well as summaries of all official and private flows for the same period. This latest issue is similar in format and coverage to the sixth issue described in *Statistical News* 16.27. An article 'Statistics of British Aid' (*Statistical News* 11.7) gave background information on the international reporting of aid statistics and described some of their characteristics. A commentary on the British aid effort in 1971 is provided in *An Account of the British Aid Programme* published earlier in the year which is the text of the United Kingdom Memorandum to the Development Assistance Committee (DAC) of OECD.

Also published in December was *Development Cooperation, the Efforts and Policies of the Members of the Development Assistance Committee*. This is the report by the Chairman of the DAC on the 1972 Review of member countries aid performance. The members of the DAC are those sixteen members of the OECD who are main aid donors plus the Commission of the European Economic Communities. The Chairman's report provides not only a general review of the efforts and policies of the donor countries but also a commentary on the needs of the developing countries and their current economic position and problems. Numerous tables and charts within the text of, and the annexes to, the report provide summary information on flows from developed to developing countries and other economic and social statistics relating to de-

veloping countries. There is also a statistical annex of twenty-six tables which provide in detail information of flows from all DAC donor countries in 1971 and much comparative data for the period 1961 to 1971.

These two publications provide a very comprehensive review of the international aid effort and the part played by the United Kingdom in this effort. The main features relevant to the United Kingdom's performance are given below.

At current prices the total net flows from the United Kingdom rose in 1971 by £117.8 million over the previous year to a figure of £652.5 million which represents 1.15 per cent of GNP at market prices. Of this total official development assistance accounted for £230.9 million or 0.41 per cent of GNP, an increase from 0.37 per cent of GNP in 1970.

The total net flows from all DAC countries to developing countries in 1971 amounted to \$18,258 million. Floating of certain currencies and revaluation of exchange rates make comparisons with 1970 disbursements more difficult than normal. As published the increase amounted to 15 per cent but in terms of national currencies, i.e. at 1970 exchange rates it was only 13.5 per cent and in 1970 prices and exchange rates of the order of 8 per cent. At \$1,587 million the United Kingdom was the fifth highest source of flows providing 8 per cent of the total compared with the USA, 38.5 per cent; Japan, 11.7 per cent; Germany, 10.5 per cent; and France, 8 per cent. As a proportion of GNP the United Kingdom figure of 1.15 per cent was the highest of the major donors and the fourth highest of all DAC countries after Portugal, 2.12 per cent; the Netherlands, 1.63 per cent; and Australia, 1.27 per cent. In terms of official development assistance ('oda') provided by major donors the United Kingdom's performance at 0.41 per cent of GNP was below only that of France, 0.67 per cent. The United Kingdom was eighth in order of all DAC countries but above the overall coverage of 0.35 per cent.

Total 'oda' commitments of the United Kingdom for 1971 went up by 32.7 per cent compared with 1970. Most loans were, as in the past, extended at zero interest, 25 years maturity and varying periods of grace but there was some tendency to soften average loan terms further so that the grant element of loans went up from 63 per cent to 66 per cent. Consequently although the grant share declined from 50 per cent to 48 per cent the grant element of the total 'oda' programme increased from 82 per cent to 83 per cent. For the DAC countries as a whole 'oda' commitments increased in 1971 to \$9,679 million, an increase of



17.9 per cent over 1970 but the grant element of the total 'oda' programme fell from 84 per cent to 82 per cent.

In 1971 the same eleven among the sixteen DAC Member countries as in 1970, including the United Kingdom, complied with the 1969 DAC Terms Recom-

mendation. Four countries did not meet any of the terms standards and the other, Switzerland, reached the standards but failed to comply due to an insufficient volume of 'oda' commitments.

Table A sets out the main 1971 aggregates for all DAC donor countries.

Table A Aid given by DAC member countries in 1971 \$ (US) million

	Total net flows				Net bilateral official development assistance flows				Net multi-lateral flows	% GNP		Grant element %* of official development assistance programme
	Total	Official development assistance	Other official flows	Private	Total	Technical assistance	Other grants	Loans		Total	Official development assistance	
DAC donor:												
Australia	493	202	11	280	191	11	166	14	11	1.27	0.52	100
Austria	93	10	-2	85	5	3	-	2	5	0.56	0.06	67
Belgium	317	146	1	170	110	57	38	15	36	1.09	0.50	97
Canada	758	340	66	352	295	49	107	139	45	0.82	0.37	92
Denmark	138	74	2	62	36	17	3	16	38	0.80	0.43	93
France	1,636	1,088	50	498	960	489	261	210	128	1.00	0.67	85
Germany	1,915	734	164	1,017	529	206	72	251	205	0.88	0.34	84
Italy	871	183	122	566	137	16	26	95	46	0.86	0.18	51
Japan	2,141	511	651	979	432	28	98	306	79	0.96	0.23	65
Netherlands	590	216	3	371	152	42	65	45	64	1.63	0.60	88
Norway	64	42	1	21	18	6	11	1	24	0.51	0.33	99
Portugal	147	99	19	29	98	9	7	82	1	2.12	1.42	50
Sweden	244	159	-	85	68	21	24	23	91	0.69	0.45	98
Switzerland	246	29	-1	218	20	3	15	2	9	1.00	0.11	87
United Kingdom	1,587	561	12	1,014	487	140	107	240	74	1.15	0.41	83
United States	7,045	3,324	180	3,541	2,893	593	956	1,344	431	0.67	0.32	83†
Total	18,285	7,718	1,279	9,288	6,431	1,690	1,956	2,785	1,287	0.83	0.35	82†

\*Grant element of commitments of overseas development assistance made in 1971.

†DAC Secretariat estimate in whole or part.

Source: *Development Co-operation, the Efforts and Policies of the Members of the Development Assistance Committee, 1972 Review*

### New DAC recommendation on terms and conditions of aid

The original DAC recommendation on financial terms and conditions was adopted in July 1965 and subsequently modified by the supplement in February 1969.

From January 1973 this is replaced by a new recommendation accepted by DAC, with Italy reserving its position, in October 1972. The new recommendation is simpler than the previous one which was described in detail in an article by W. L. Kendall in *Statistical News* 11.7. The full recommendation is set out at Annex III to the Chairman's Report but the three main changes of statistical interest are:

(a) the definition of 'oda' has been tightened. In the past 'oda' flows were defined as having the promo-

tion of the economic development and welfare of developing countries as their prime motivation and intended to be concessional. The motivation part of the definition has been left unchanged but the concessional part has been quantified and to qualify each transaction must have a grant element of at least 25 per cent;

(b) in place of the former terms which could be satisfied in any one of three ways, i.e. by proportion of grants or individual transaction concessional of 85 per cent of commitments or the overall concessional of the softest 85 per cent of the programme, the new recommendation requires an average grant element of at least 84 per cent for the whole of the 'oda' programme;

(c) a new target has been introduced for the twenty-five least developed countries which have been identified.\* 'Oda' to these countries should preferably be in the form of grants and the average grant element of all commitments should either be at least 86 per cent to each less-developed country over a period of three years or at least 90 per cent annually for the least-developed countries as a group.

The immediate effect on the United Kingdom programme of the new terms will be that in future a number of loans granted by the Commonwealth Development Corporation which would previously have been included in 'oda' will probably be excluded as their grant element will be below the threshold now introduced. They will still be included in total flows under 'other official flows'.

#### *The DAC Group on Statistical Problems*

The Group, now established as a permanent body of the DAC, re-elected Mr. W. L. Kendall of the United Kingdom as Chairman for 1972. It met twice during the year and apart from its annual review of the Expanded Reporting System dealt with a number of particular items in the annual statistical reports to the DAC. Instructions were agreed for the reporting of the statistics of nationalisation of private assets in developing countries; the criteria to be adopted in the differentiation between multilateral and bilateral resource flows; the improved reporting of tying status and procurements; the treatment of indemnification payments by investing guarantee agencies; and a slightly expanded reporting of technical assistance flows for research and development.

The reporting implications of the new terms recommendations and a complete revision of the reporting directives are likely to be the main concern of the Group during 1973, together with continuing discussions on a number of topics on which it is hoped agreement can be reached during the year. The most important of these are improvements to the reporting of technical assistance statistics; the treatment of official sector equity investments; and the purpose breakdown of commitments. It is intended that DAC statistics, which are at present circulated piecemeal in a number of publications or documents, will be produced at regular intervals in a standardised form and it is also hoped that complete

harmonisation of statistics between the DAC and UN bodies can be achieved.

#### References

- British Aid Statistics, 1967 to 1971* (HMSO) December 1972 (Price £2.10)  
*An Account of the British Aid Programme* (HMSO) October 1972 (Price 21p)  
*Development Co-operation, the Efforts and Policies of the Members of the Development Assistance Committee, 1972 Review* (OECD) December 1972 (Price £2.50).

## EUROPEAN ECONOMIC COMMUNITIES

### Labour force survey 1973

Member states of the European Economic Communities will carry out labour force surveys in the first half of 1973, the main purpose of which is to produce comparable labour force statistics throughout the Community. The United Kingdom has agreed to participate and will carry out a survey addressed to roughly one half per cent of all households. Participation in the survey will be voluntary. Specific questions for the United Kingdom survey were piloted in January and it is expected that the full survey will be carried out in May.

Topics covered by the survey will include information about personal characteristics, such as age, sex, nationality and area of residence. For those currently in employment, details will be obtained about the kind of work performed and the hours worked in their main job and in any subsidiary jobs. Information will also be obtained about occupation a year previously and about training related to the present job. For those seeking work or waiting to take up a job, the questions will enquire about duration of unemployment, methods of seeking work and details of previous employment. Additional questions will provide information about the position 12 months earlier, including area of residence, details of employment or whether seeking employment.

### Labour costs survey 1973

At the request of the Statistical Office of the European Communities, a sample survey is to be made of employers' total labour costs in the United Kingdom. The reference period will be the year 1973. Previous surveys were made in this country in 1964 and 1968 (see *Statistical News* 16.21). The new survey will cover only the index of production industries - manufacturing, mining and quarrying, construction, gas, electricity and water supply. Specimen questionnaires were sent to the firms included in the sample by the Department of Employment towards the end of 1972.

For further information telephone Watford (01-92) 28500 ext. 226.

\*Botswana, Burundi, Chad, Dahomey, Ethiopia, Guinea, Lesotho, Malawi, Mali, Niger, Rwanda, Somalia, Sudan, Uganda, Tanzania, Upper Volta, Afghanistan, Bhutan, Laos, Maldives, Nepal, Sikkim, Western Samoa, Yemen and Haiti.

### Pilot survey of retail prices in London

Meetings were held in London in November 1972 attended by representatives of the Statistics Division of the Department of Employment and a group of experts from the Statistical Office of the European Communities (SOEC), and observers from Denmark and Ireland. Retail price surveys are carried out annually by SOEC with the aim of comparing retail prices and real income levels in the Community countries. The SOEC party had been holding joint surveys with the national statistical offices of the six member states in the previous weeks.

The main purpose of the London visit was to make a preliminary assessment of the problems of choosing suitable retail outlets and of collecting from them the prices of a basket of identically-defined goods commonly sold in all member countries. Joint teams visited a variety of London shops and, on clothing items, representatives of four large United Kingdom clothing firms took part in the work. A number of difficulties were encountered relating to the availability, comparability and representativeness of articles in the United Kingdom market, and it is hoped to resolve these by May 1973.

Further meetings will be held in Luxembourg in the early months of 1973 and, in the spring, the nine capital cities will be visited by experts from the statistical offices of all member states. It is expected that the new member countries will participate fully in the next survey to be held in the Autumn of 1973.

## PUBLICATIONS

### Social Trends

At the end of November the third issue of the Central Statistical Office annual *Social Trends* was published. It contains a number of new tables and charts but retains the same general pattern as previous issues. It opens with a series of articles followed by tables with coloured charts and maps setting out the key statistics relating to all areas of social policy and conditions. Notes, definitions and comprehensive source references are provided.

The main new feature of the articles is a social commentary by the Central Statistical Office which describes some aspects of changes in social conditions during the past decade – or during a longer term where of particular significance. The topics included and the statistics selected to illustrate them, like *Social Trends* itself, have been determined not in any systematic way

based on a particular social theory but by the extent of public interest and government involvement in particular topic areas and by the availability of statistics.

Among the main tables there are many detailed additions and innovations and almost a quarter of them are new; some of the tables previously included have been dropped. The number of charts and maps has also been increased, the majority being new. There have been certain modifications of the topic areas into which the tables and charts are grouped; the 'Health' and 'Welfare' sections have been combined and the 'Social security' section has been merged with that of 'Personal income and wealth' while 'Personal expenditure' has become a separate section. Seven of the new tables, mainly concerned with housing and health services, come from the new General Household Survey and are being published for the first time. Some results from the 1971 Census are included and population projections are given based upon the 1971 figures. Other additions include rather more regional material and more information in the 'Environment' and 'Justice and law' sections, the latter section including a map comparing the rates of indictable offences in the various regions of England and Wales and more detailed analyses for certain types of offence such as murder, motoring offences and offences against property.

Professor Moser, Director of the Central Statistical Office and Head of the Government Statistical Service has written an article on statistics about immigrants and his discussion of objectives, sources and methods illustrates the kind of problems which arise more generally in collecting and compiling government statistics. Other articles cover manpower planning in Scottish secondary education and social malaise research in the Liverpool City Planning Department; there is also an extended note on current trends in crimes of violence against the person.

#### Reference

*Social Trends* No. 3, 1972 (HMSO) November 1972 (Price £2.90 by post £3.03).

### Abstract of Regional Statistics 1972

The 1972 edition of this annual was published on 15 December. In addition to updating previous issues, it contains new information on several topics.

The section on incomes includes new tables showing medians and quartiles for personal incomes (before tax) by country, standard region and county of the United Kingdom. The tables on the New Earnings Survey in the same section include results for Northern

Ireland, where the Survey was conducted for the first time in April 1971 by the Ministry of Health and Social Services on identical lines with the Great Britain Survey carried out by the Department of Employment.

The quantity of various foods consumed per person per week in each of the standard regions is shown in a table based on the National Food Survey for 1970-1971. Other tables, showing a regional breakdown of National Health Service executive council staff and local authority health service staff, have also been introduced in this edition.

The use made of liquid fuels by the main industrial groups is shown for each of the standard regions for 1965-1971. Alterations have been made to the tables showing traffic at United Kingdom ports. Arrivals and departures are no longer shown but a regional analysis of the foreign trade, imports and exports by weight, has been introduced. The quantity of goods carried by coastal vessels into and out of United Kingdom ports is shown in another new table.

#### Reference

*Abstract of Regional Statistics No. 8 1972* (HMSO) December 1972 (Price £1.45 by post £1.54).

### Public Expenditure

The fourth in the annual series of White Papers on public expenditure was published on 19 December 1972. Like its predecessors it contains projections of the Government's plans for public spending, on the basis of existing policies, for the four years ahead (that is, up to 1976-77), together with an estimate for the current financial year and outturns for the period going back to 1968-69. The layout of this White Paper follows the established pattern of presenting the material in three parts, the first in the form of a general review of the expenditure prospect and of the broad nature of the changes since the previous White Paper, the second commenting on and analysing in detail the projections for the individual programmes, and the third consisting of a number of supporting statistical tables.

The main new feature of the 1972 White Paper is the inclusion of a table showing how the Government's expenditure plans would fit into possible patterns of resource use in the medium term in the economy as a whole. This form of presentation, which is something for which the Select Committee on Expenditure had pressed earlier in the year, shows, on the basis of two alternative assumptions about economic growth, the likely consequences for the rest of the economy of present public expenditure projections. The White

Paper emphasises that this assessment, which is included on an experimental basis only, is neither a forecast nor a blue-print.

The latest White Paper continues the innovation, introduced the previous year, of showing the growth in public expenditure over the forecast period expressed in terms of the average annual rate of increase in real cost to the economy, that is after allowing for the tendency for the prices of goods and services purchased by public authorities to rise faster than prices generally (the relative price effect) and for the fact that different categories of expenditure make differing demands on output, depending on the extent to which money flows back to the Government in the form of indirect taxes and, in the case of transfer payments, on the incidence of saving. The commentaries on the individual programmes in Part 2 of the White Paper are fuller than in earlier years and some of the statistical tables show a run of figures covering the nine years from 1968-69 to 1976-77 on a comparable price basis.

Also published on the same day was a Handbook on the methodology underlying the public expenditure White Papers. This provides a detailed description of the methods used in compiling the figures and the significance of the terms used and will, it is hoped, be of interest and use to the general reader as well as to the serious student of public expenditure. It includes chapters on the aims and framework of the public expenditure survey system, the price basis of the published figures and associated problems (including the relative price effect). The Handbook, on this subject, makes reference to a fuller account of relative price effect which was given in *Statistical News* (18.12) in an article by P. M. Rees and F. P. Thompson. Other chapters are on the economic impact of public expenditure, the relationship between the White Paper figures and the national accounts and the sources used in preparing those figures.

#### References

*Public Expenditure to 1976-77* Cmnd 5178 (HMSO) December 1972 (Price 68p).

*Public Expenditure White Papers: Handbook on Methodology* (HMSO) December 1972 (Price 42p).

### Inland Revenue

The 115th Report of the Commissioners of Her Majesty's Inland Revenue was published in December 1972. The Report covers the year ended 31 March 1972 and gives an account of the Board's work during the year. An Appendix gives statistics relating to Inland Revenue duties (yields, rates of tax, etc.) but the main body of economic and social statistics derived from the admini-

stration of the department's taxes will be published separately later in the year in *Inland Revenue Statistics* and the *Survey of Personal Incomes 1970-71*.

#### Reference

*115th Report of the Commissioners of Her Majesty's Inland Revenue for the year ended 31 March 1972* Cmnd 5168 (HMSO) December 1972 (Price 68p net).

### Customs and Excise

The *63rd Report of the Commissioners of HM Customs and Excise* was published on 19 December 1972. The Report covers the year ended 31 March 1972 and takes the customary form of a narrative review of the year's activities followed by an Appendix giving descriptions and statistics of the various Customs and Excise duties. Most of the statistical tables cover ten years.

#### Reference

*63rd Report of the Commissioners of HM Customs and Excise for the year ended 31 March 1972* Cmnd 5163 (HMSO) December 1972 (Price £1.10).

### Classification for Overseas Trade Statistics 1973

The 1973 edition of the *Guide to the Classification for Overseas Trade Statistics* was published in January. It provides, in the order of the Standard International Trade Classification (Revised), the trade descriptions and code numbers under which goods imported into or exported from the United Kingdom are to be classified for the purpose of the overseas trade statistics and is intended primarily as a book of reference to assist users of the statistics. It does not contain other information necessary for the completion of import or export documents and is not intended to be used for that purpose.

The 1973 edition incorporates:

- (i) changes effective from 1 January 1973 as a result of the Customs and Excise Tariff amendment issued in mid-December 1972, and
- (ii) new trade descriptions relating to Tariff Chapters 01 to 24 and to Tariff headings 29.04, 35.01, 35.02, 35.05, and 38.12 effective on 1 February 1973 when an integrated UK/EEC Tariff was introduced for these areas. Note 6 to the 'Guide' draws attention to the fact that these trade descriptions were not effective until 1 February 1973, and that for the month of January 1973 the descriptions used for the commodities concerned were those shown in the 1972 edition of the 'Guide'.

As a further stage in the adoption of the Common Customs Tariff, Chapters 27 and 73 of the Customs and Excise Tariff will be extensively revised from

1 April 1973. Details of these revisions will be provided in an amending supplement to the 'Guide' which will be available during April 1973.

#### Reference

*Guide to the Classification for Overseas Trade Statistics* (HMSO) January 1973 (Price £1.90).

### New Business Monitors

Nine new Business Monitors have been issued recently, seven in the Production Series, one in a new Census Series and one in the Miscellaneous Series.

The seven present the results of new quarterly inquiries being conducted by the Business Statistics Office as part of the new system of industrial statistics. The new Business Monitors contain statistics on manufacturers' sales for the following industries:

- P 27 Mechanical handling equipment
- P 57 Salt
- P 63 Agricultural machinery (except tractors)
- P132 Miscellaneous manufacturing industries
- P133 Pumps, valves, compressors and fluid power equipment
- P137 Industrial (including process) plant and steelwork
- P138 Precision chains and other mechanical engineering products

The first three listed above replace five existing Business Monitors, the new P27 incorporating three previous quarterly issues – namely, P3 (Industrial trucks and tractors), P27 (Mechanical handling plant) and P70 (Cranes) – which have been discontinued after the issues relating to the fourth quarter of 1971. The new P57 replaces a monthly issue with the same title.

Quarterly statistics on manufacturers' sales are being published for the first time for the last four Business Monitors shown above.

In addition to sales figures, the new Business Monitors include statistics on imports and exports.

The Business Monitor in the new Census Series (reference C 200) contains two tables showing the provisional results of the Census of Production for 1971 for 154 separate industries. Table 1 includes statistics on total sales of goods produced and work done, gross and net output, the cost of purchases and employment. Table 2 gives details of investment and stocks.

The new Business Monitor in the Miscellaneous Series, entitled 'Nationality of vessels in sea-borne trade' (reference M8) is the first to contain statistics on shipping. It contains an analysis of the sea-borne trade of the United Kingdom, including details of cargo imported and exported by countries and flags, average lengths of haul and individual commodity tables. An article commenting on the 1971 figures was published in *Trade and Industry* on 2 November 1972.

The eight Business Monitors in the Production Series and Miscellaneous Series are available, by subscription only, from Her Majesty's Stationery Office, PO Box 569, London SE1 9NH, at 37½p per annum for each title.

Business Monitor C200 is also available from HMSO, price 43p.

Existing subscribers to P3, P27, P57, P63 and P70 will receive copies of the appropriate new Business Monitors for the duration of their current subscriptions.

#### **Education Statistics (Northern Ireland)**

Volume 14 in the series of *Education Statistics* issued by the Northern Ireland Ministry of Education is now available at HMSO price 87½p. This new edition contains updated (1970/71) figures relating to finance, school leavers, examinations and further education.

#### **National Institute Economic Review**

The National Institute of Economic and Social Research is reassessing forecasts of developments in certain sectors of the British economy which have appeared in past issues of the *National Institute Economic Review*. The November issue (available from the National Institute at 2 Dean Trench Street, Smith Square, SW1) deals with energy and with the paper and board industry. The author of both these sections is G. F. Ray, who collaborates with S.W. Davies on the reassessments of paper and board. The forecasts published some years ago (in May 1967 for energy and May 1965 for paper and board) are compared with actual output and consumption in 1970, and new projections are added for 1975 and 1980 on alternative assumptions about the course of the economy as a whole during the present decade. The Institute hopes in May to cover cars and other consumer durables on similar lines and to add some general assessment of the results.

With the volume of gross domestic product growing at an annual rate of about 2¼ per cent between 1965 and 1970, the 1967 energy forecasts implied an increase in UK consumption of energy over the period of about 1¾ per cent per annum in terms of coal equivalent. In fact, however, the use of energy almost kept pace with the growth of total output when measured in this way, though not in terms of heat supplied. The article suggests that the disparity between the rates of growth of total output and of energy consumption will widen in the first half of the present decade but narrow again in the second half. The other main features of the forecast are decline in coal's contribution to primary energy from one half in 1970 to one quarter by 1980, a further advance by petroleum, which by 1980 is likely to supply half of requirements with substantial quantities from the North Sea, and growing reliance on North Sea gas, and nuclear electricity.

The weight of paper and board consumed in the United Kingdom increased more slowly from 1963 to 1970 than the previous forecast had suggested – partly because of a trend towards lighter products. The annual rate of rise was about 3½ per cent and, with imports increasing rapidly, particularly from Scandinavia, output grew at only 2½ per cent a year compared with 2¾ per cent for gross domestic product. In the 1970's consumption too is expected to lag behind total national output, and, though the new trading relationships resulting from the enlargement of the EEC may slightly reduce Scandinavian concentration on the British market, imports seem likely to go on increasing their share. The growth of production of paper and board in this country is thus expected to be slow, though for some types prospects seem bright enough to call for additions to productive capacity as well as improved arrangements for collecting waste paper.

The November issue also contained an article by J. F. Bowers, P. C. Cheshire, A. E. Webb and R. Weeden which, under the title of 'Some aspects of unemployment and the labour market, 1966–71', investigates the change since 1966 in the relationship between vacancies and unemployment. Little evidence is found to support the view that the relatively high recent level of unemployment is partly voluntary, in the sense that workers are now more willing to remain on the register rather than accept any job that may be offered, or that it is caused to any substantial extent by structural factors such as a worse fit, by region or industry, between the jobs on offer and the workers available to fill them. The article concludes, therefore, that most of the current unemployment will respond to an expansion of aggregate demand.

## GOVERNMENT STATISTICAL SERVICE

### New Year Honours, 1973

*Professor C. A. Moser*, CBE, FBA, Director of the Central Statistical Office and Head of the Government Statistical Service, was made a Knight Commander of the Bath (KCB).

*Mr J. N. C. Hancock*, Statistician, Central Statistical Office, became an Officer of the Order of the British Empire (OBE).

### Appointments and changes

#### CENTRAL STATISTICAL OFFICE

*Mr T. S. Pilling*, Head of Division EcS4, Department of Trade and Industry, transferred to the Central Statistical Office to fill the Assistant Director vacancy arising from the move of Mr S. F. James to the Board of Inland Revenue.

*Mr P. B. Kenny*, Chief Statistician, Ministry of Defence, was transferred to a post at the same level in the Central Statistical Office. He is in charge of Branch 9, Research and Special Studies.

#### DEPARTMENT OF TRADE AND INDUSTRY

*Mr A. D. Roy*, Deputy Director, Economic Assessment Division, HM Treasury, transferred to the Department of Trade and Industry to fill the vacancy caused by the move of Mr T. S. Pilling.

#### MINISTRY OF DEFENCE

*Mr W. V. Webb*, has been promoted to Chief Statistician and is Head of Defence Statistics (Equipment) Division.

*Mr J. Draper*, Senior Principal Scientific Officer, Department of Trade and Industry, was regraded Chief Statistician on transfer to the Ministry of Defence as Head of Statistical Systems Division.

#### BOARD OF INLAND REVENUE

*Mr S. F. James*, Assistant Director (Under Secretary), Central Statistical Office, has been appointed Director of Statistics and Intelligence, Board of Inland Revenue in succession to Mr G. Paine.

# List of principal statistical series and publications

## Amendment list no. 3

### Introductory note

It was stated in the CSO's new guide, the *List of principal statistical series and publications* (HMSO) May 1972 (price 47p) that amendments and additions to the List would be summarised regularly in *Statistical News* so that users could keep their copies up to date. The third list of amendments, covering the period from October to December is given below. Lists of amendments appeared in the August and November 1972 issues of *Statistical News*; a limited number of offprints are available and copies can be obtained from the Publications Unit, Central Statistical Office, Telephone 01-930 5422, ext. 504.

### Amendments to Part I. List of principal series

#### Population and Vital Statistics

1. Population statistics
  - (a) Census of Population figures
- Delete MDS from secondary sources

Page

1

#### Social Statistics

4. Social security
  - (d) Occupational pension schemes
- Delete note and substitute the following:  
The latest survey for which results have been published was the fourth, taken in respect of 1971.

5

#### National Income and Expenditure

1. The national product
- (d) Amend heading to read: 'Estimates of the gross domestic product of Northern Ireland, of Scotland and of Wales'. Add to the list of publications *Digest of Welsh Statistics*.

16

#### Financial and Business Statistics

7. Interest rates and security prices
  - (a) Short-term money rates
- Amend note to read, 'Selected rates (per cent per annum) including the Bank of England's minimum lending rate (Bank rate until 12 October 1972), discount rates for Treasury and commercial bills, London clearing banks' base rates, and interest rates for deposits with local authorities and finance houses'.

25

#### External Trade

1. Balance of payments
  - (h) Official reserves
- Amend note to read: 'Holdings of gold, convertible currencies, IMF special drawing rights and reserve position in the IMF'.

26



## Amendments to Part II. List of Publications

### Page 28

#### Abstract of Regional Statistics

Delete (1971). Substitute (1972)

#### Accidents to Aircraft on the British Register

Delete (1970). Substitute (1971)

#### Annual Abstract of Statistics

Delete (1971). Substitute (1972)

#### Annual Estimates of the Population of England and Wales and of Local Authority Areas

Delete (1971). Substitute (1972)

#### Annual Report of the Registrar General for Scotland

Delete (1970). Substitute (1971)

#### Appropriation Accounts (Northern Ireland)

Delete (1970-71). Substitute (1971-72)

#### British Aid Statistics

Delete (1966 to 1970). Substitute (1967 to 1971)

### Page 29

#### Business Monitors: Production series

##### Mining and quarrying

P 57 Salt. Delete 'Monthly' Substitute 'Quarterly'

##### Mechanical Engineering

P 63 Agricultural machinery

Amend heading to read 'Agricultural machinery (except tractors)'

Add P 133 Pumps, valves, compressors and fluid power equipment

Quarterly

### Page 31

#### Other industries

Add P 132 Miscellaneous manufacturing industries.

Quarterly

#### Civil Service Statistics

Delete (1971). Substitute (1972)

#### Consolidated Fund and National Loans Fund accounts

Delete (1970-71). Substitute (1971-72)

#### Criminal Statistics, Scotland

Delete 55p (1970). Substitute 68p (1971)

### Page 32

#### Digest of statistics analysing certificates of incapacity

Delete (June 1967-May 1968). Substitute (June 1968-May 1969)

#### Family Expenditure Survey, Report (Northern Ireland)

Delete 70p (1970). Substitute 74p (1971)

#### Health of the school child, The

Delete 72½p (1966-1968). Substitute 85p (1968-1970)

#### HM Chief Inspector of Constabulary for Scotland, Report

Delete 22½p (1970). Substitute 24p (1971)

#### Local Authority Financial Returns, Northern Ireland

Delete (1969-70). Substitute (1970-71)

### Page 33

#### Local Authority Rate Statistics, Northern Ireland

Delete (1971-72). Substitute (1972-73)

#### Local Government Financial Statistics, England and Wales

Delete 47½p (1968-69). Substitute 70p (1969-70)

#### National Savings Committee, Annual Report

Delete 45p (1970-71). Substitute 47p (1971-72)

#### Northern Ireland Education Statistics

Delete (Nos. 11 and 12, 1971). Substitute (Nos. 13 and 14, 1972)

#### Occupational pension schemes, Survey by the Government Actuary

Delete 27½p (third survey 1968). Substitute 47p (fourth survey 1971)

#### Population projections

Delete £1.20 (1970-2010). Substitute £1.00 (1971-2011)

#### Psychiatric hospitals and units in England and Wales: In-patient statistics from the Mental Health Enquiry

Delete 92p (1969 - Statistical Report series No. 12). Substitute £1.12 (1970 - Statistical and Research Report series No. 4)

#### Public expenditure

Delete (to 1975-76). Substitute (to 1976-77)

**Railway Accidents in Great Britain**

Delete 80p (1970). Substitute 75p (1971)

**Rates and Rateable Values in England and Wales**

Delete 95p (1971-72). Substitute 96p (1972-73)

**Page 34**

**Report of the Chief Registrar of Friendly Societies**

Delete 1970. Substitute 1971

Delete Part 4. Trade Unions 40p (see *Statistical News* 19.32)

**Report of the Registrar of Friendly Societies (N. Ireland)**

Delete 16p (1970). Substitute 18½p (1971)

**Report on Hospital in-patient enquiry Part I Tables**

Delete (1969). Substitute (1970)

**Report on sea and inland fisheries**

Delete 17½p (1970). Substitute 21p (1971)

**Report on the Census of Production of Northern Ireland (1968)**

Add volume 4 (Other production industries) 95p

**Report on the work of the Prison Department, Statistical Tables**

Delete (1970). Substitute (1971)

**Social Trends**

Delete (1971). Substitute (1972)

**Social work in Scotland**

Delete 47p (1970). Substitute 31½p (1971)

**Page 35**

**Trading Accounts and Balance Sheets**

Delete 74p (1970-71). Substitute 73p (1971-72)

# Alphabetical Index

The index to *Statistical News* covers the last nine issues. Page numbers are prefixed by the issue number e.g. 19.31 signifies issue number 19, 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.

- abortions, 13.26, 17.21
- accidents, road, 12.24
- acquisitions and mergers, 14.16
- agricultural census, England and Wales, reshaping the, 19.14 (A)
- agricultural industry *Annual Review*, 13.23
- agriculture
  - aerial spraying, 16.25
  - egg yield survey, 14.13
  - Farm Classification in England and Wales*, 16.25
  - farm finance, 14.12
  - food marketing trends in the UK, 18.7 (A)
  - harmonised accounts for net output and farming net income, 13.23, 15.19
  - measuring self-sufficiency for food and drink, 16.25
  - new statistics, 13.23
  - Northern Ireland, 12.24
  - output estimates, 12.23, 15.19
  - Scotland, 17.27
  - use of contracts, 16.26
- aid to developing countries, 12.27, 14.15, 16.27, 20.40
- air transport growth, 13.23
- airline financial statistics, 12.25
- Annual Abstract of Statistics*, 13.29
- attendance allowance, 16.19, 17.22, 20.29
- average earnings, index of, 15.16
- balance of payments
  - effect of changes in exchange rates, 16.27
  - in inter-war period, 19.30
  - official borrowing, 13.24
  - official lending, 13.24
  - overseas sterling area, 17.27
  - UK external assets and liabilities, 14.13
  - visible balance, 12.26
- Bank of England Statistical Abstract*, 12.29
- births
  - by parents' birthplace, 12.17
  - in England and Wales, 13.18
- Bolton Report, 17.32, 18.16 (A)
- Britain and International Tourism*, 17.30
- British Aid Statistics*, 16.27, 20.40
- British Labour Statistics:*
  - Year Book 1969*, 16.20
  - Year Book 1970*, 19.23
- building
  - industrial, 19.29
  - materials, 19.29
- Business Monitor series, 12.21, 12.29, 13.28, 14.15, 15.22, 16.31, 17.29, 18.30, 19.31, 20.16(A), 20.38, 20.45
- Business Statistics
  - Office, 13.1(A), 13.30, 14.18, 15.23, 18.19 (A), 20.12 (A)
  - telex service, 19.35
  - Users Conference, 12.31, 18.35
- cancer incidence, 17.20
- capital consumption estimates, 15.21
- car ownership, growth, 13.30
- catering
  - Manpower Studies No. 11*, 20.33
  - trades, 1969 enquiry, 15.8(A)
- Census of Distribution
  - for 1966, 14.11, 19.25
  - for 1971, 12.22, 15.19, 16.11(A), 20.14(A)
- Census of employment, 13.21, 17.24
- Census of Population
  - census tests, 19.20
  - future, 16.4 (A)

- Census of Population 1966*  
*Economic Activity Sub-Regional Tables*, 12.17  
 post enumeration study, 20.25  
*Scientific and Technological Qualifications Tables*, 13.18
- Census of Population 1971**  
 adjustment for underenumeration, 16.17  
 county reports, 16.16, 17.19, 20.25  
 explanatory notes, 20.25  
 data collections and processing methods, 12.13(A), 16.16  
*England and Wales, Preliminary Report*, 14.3  
 publication programme, 20.26  
 qualified manpower survey, 18.25  
 Scotland, preliminary evaluation of coverage, 19.21  
*Scotland, Preliminary Report*, 13.19, 14.3, 16.17, 17.19  
 voluntary incomes survey, 18.24
- Census of Production**  
 for 1968, 13.31, 15.17, 16.22, 17.25, 18.28, 19.25 20.13(A), 20.35  
 for 1970, 14.8, 16.22  
 annual censuses, 20.12(A)  
 changes in annual censuses, 20.36  
 post-census survey 1970, 17.7(A)
- Census of Production of Northern Ireland, 1968**, 19.27
- central government current expenditure, commodity analysis, 15.22
- Central Register of Businesses, 20.14(A)
- Central Statistical Office**  
 automatic data processing (ADP), 15.4(A)  
 macro-economic data bank, 15.4 (A)  
 reorganisation of, 19.34
- Cheshire, Abstract of Statistics, 17.32
- civil aviation, 13.23
- Civil Service**  
 management studies, 13.27  
 manpower planning, 16.9(A)  
 sickness absence survey, 13.27, 18.25  
 staff records, 13.21, 13.27  
 statistics, 12.31, 13.27, 16.9(A)  
 structure, 13.27
- CODOT, 18.27, 19.25
- Cohort Studies*, 20.25
- commodity analysis of turnover of large retailers, 20.35
- Commonwealth immigrants, 12.17
- 20.52
- computers  
 Civil Service staff records, 13.21, 13.27  
 Integrated Statistical Information System (ISIS), 16.14(A)  
 seminar on population data and use of, 16.30  
*Computers in Offices*, 20.33
- Conference of African Statisticians, 16.29
- Conference of Asian Statisticians, 12.27
- Conference of Commonwealth Statisticians, 12.16
- Conference of European Statisticians, 14.14
- confidentiality, 13.30
- constant price estimates, rebasing, 16.33
- construction industry  
 CITB annual levy inquiry, 16.26  
 cost of completing inquiries, 20.31  
 review of statistics, 14.10, 15.6 (A)
- Consumer Price Index, 13.14 (A)
- contract cleaning workers, 13.25
- costs, labour, 12.20, 15.17, 16.21, 20.42
- Council of Europe**  
 meeting on demographic projections, 13.26  
 Second Population Conference, 13.25
- criminal statistics, offences involving firearms, 13.27
- Customs and Excise *Annual Report*, 12.28, 16.32, 20.45
- data bank  
 CSO, 15.4(A), 17.31  
 ICC, 15.22
- deaths  
 by deceased's birthplace, 12.17  
 by occupation, 16.17  
 classification by cause, 13.18
- Distribution, Census of  
 for 1966, 14.11, 19.25  
 for 1971, 12.22, 15.19, 16.11(A), 20.14(A)
- distributive and service trades, annual inquiries, 20.14(A)
- divorce, in Scotland, 20.27
- doctors and dentists, remuneration, 18.31
- earnings  
 dental profession, 18.31  
 fire service, 16.22  
 medical profession, 18.31  
 new survey, 12.18, 12.19, 16.21, 19.24, 20.33  
 probation officers and social workers, 19.25  
 qualified manpower, 12.19  
 regional, 15.17, 20.33  
 surveys of earnings, 1972, 16.21  
 surveys of earnings, 1973, 20.33  
 year-to-year variations, 17.25
- Economic Activity Sub-regional Tables*, 12.17

- economic statistics
  - New Contributions*, 17.28
  - resources in, 18.34
  - survey of collections, 18.21 (A), 18.34
- Economic Statistics Collections*, 12.30, 18.21 (A), 18.34
- Economic Trends*, changes in content, 12.26, 13.24, 15.21
- education
  - curricula in secondary schools, 14.6
  - Northern Ireland, 13.20, 14.6, 16.32, 17.30, 20.46
  - teacher deployment, 14.6
- Education, Statistics of*, 12.29
  - Special Series No. 4*, 14.6
- Educational Statistics, Scottish*, 15.12, 17.34, 18.31
- electoral register, sampling from, 18.25
- electricity supply industry
  - annual reports, 19.28
  - standard statistical review periods, 14.10
- electronics, industry, annual statistical survey, 19.33
- employment
  - census, 13.21, 17.24
  - labour turnover, 18.27
  - statisticians in, 18.34
- employment vacancies, seasonally adjusted series, 17.24
- Energy Statistics, Digest of*, 15.18, 19.27
- engineering
  - industries, sales and orders, monthly inquiry, 17.26
  - qualified manpower, 14.6
- epidemiology and occupational medicine, 20.1(A)
- equal pay, 19.24
- European Economic Communities
  - labour costs survey, 20.42
  - labour force survey, 20.42
  - London visit of Officials of the Statistical Office, 16.29
  - pilot survey of retail prices, 20.43
  - Production, changes in Census of, 20.36
- exceptional needs payments, 20.30
- exports
  - new system for recording, 15.20
  - preliminary estimates, 12.26
- FITC
  - Statistical Review*, 15.24, 19.33
  - Mapbook*, 19.33
- Facts in Focus*, 17.28
- Family Expenditure Survey
  - 1970 preliminary figures, 13.28
- Family Expenditure Survey*
  - 1968 Report*, 15.14
  - 1969 Report*, 15.14
  - 1970 Report*, 14.16, 15.14
  - 1971 Report*, 19.31
- family income supplement, 15.14, 17.21, 20.29
- Family Intentions*, 16.18
- farm classification, 16.25
- farms
  - finance, 14.12
  - rents, 17.27
  - Scottish, 17.27
- finance houses, 12.29, 13.28
- Financial Statistics*
  - changes in content, 12.27, 16.29, 17.27
- firearms in crime, 13.27
- fire service, inquiry into work of, 16.22
- floorspace, 17.24, 18.26
- flow of funds accounting, 18.33
- food
  - cost of processing and distributing, 16.25
  - marketing trends in the UK, 18.7 (A)
  - sources of supply, 19.29
- food and agriculture, self sufficiency, 16.25
- food and feeding stuffs, sources of supply, 19.29
- food consumption
  - levels in the United Kingdom, 13.23, 14.12, 19.29
  - preliminary estimates, 17.27
- Food Facts*, 19.29
- Food Survey, National*, 12.22, 16.24
- forecasting
  - car ownership, 13.30
  - computerised industrial, 16.24
- form-filling
  - burden on small firms, 17.32, 18.16 (A)
  - reduction in, 12.31, 13.22
- Further Education Statistical Record, 20.6 (A)
- garages, 13.24
- gas industry statistics, 19.28
- General Household Survey, 16.7 (A)
- gilt-edged stocks, yield curves, 20.39
- Government Economic Service
  - Occasional Papers*, 17.30
- Government Statistical Service
  - burden of form-filling on small firms, 17.32, 18.16 (A)
  - information for politicians, 12.9 (A)
  - reorganisation of Central Statistical Office, 19.34
  - reorganisation in the Department of Trade and Industry, 14.17
  - reorganisation of Ministry of Health and Social Services, Northern Ireland, 16.33
  - Statistical Liaison Committee, 13.30
  - transfer of statistical responsibilities, 12.32
- Government Statistics for Industry*, 15.23
- Greater London Council
  - Quarterly Bulletin*, 15.24, 17.31, 18.33, 19.33
  - Research Reports*, 13.29, 13.30, 15.24, 19.33

- Greater London Council area,**  
land use, 18.33, 19.33  
road accident statistics, computerised system, 18.33  
social statistics, 17.31  
standard statistical sectors, 15.25  
surveys of personal income, 19.33  
town planning, 17.32, 19.33  
gross domestic product, preliminary estimates,  
output based, 18.30
- hairdressers, ending of monthly turnover inquiry, 16.35  
*Handicapped and Impaired in Great Britain*, 14.1 (A),  
14.4  
*Health and Personal Social Services Statistics, 1972*,  
20.27  
Health and Social Security, Department of  
*Annual Report for 1970*, 15.13  
*Annual Report for 1971*, 19.23  
incapacity statistics, 19.22, 20.28  
retirement pension and widows benefits, 19.23  
social security research, 12.18, 17.21  
*Health Statistics for England and Wales*,  
*Annual Digest*, 12.29, 13.26, 20.27  
health visitors, 15.24  
heavy goods vehicle national register, 20.20 (A)  
*Highway Statistics*, 16.27  
*Horticulture in Britain*, 12.24  
hospital building, 13.26  
hospital in-patient enquiry, 17.20, 19.23  
hours of work, overtime and shiftworking, 13.24  
house condition surveys, 18.26, 19.31, 20.31  
households, projected numbers, 13.20, 17.19  
housing  
Northern Ireland, 17.23  
private enterprise, 16.26  
surveys, 15.20, 17.23, 18.26, 19.31, 20.31  
*Housing and Construction Statistics*, 17.30, 19.29, 19.31
- IMEX, 20.23 (A)  
immigrants statistics, 20.43  
incapacity  
certificates of, 12.17, 15.13, 15.14, 19.22, 20.28  
estimates of, 15.13, 18.25  
regional statistics, 13.19  
incomes, voluntary survey, 1971 census, 18.24  
Income Surveys, 16.32, 17.1(A), 19.33  
income taxes outside the United Kingdom, 17.31  
industrial building, 19.29  
industrial disease, 20.1 (A)  
*Industrial Production, Index of*, 15.1 (A)  
historical series, 18.27  
recent improvements in, 20.34
- industrial statistics  
development of, 13.1 (A)  
instrument engineering, 20.37  
quarterly sales enquiries, 19.10 (A)  
regional talks on new system, 16.23  
re-organisation, 12.20, 13.22, 14.8, 15.1 (A), 15.17,  
16.22, 17.26, 18.28, 19.26, 20.37  
statistical and computing aspects of quarterly sales  
enquiry, 19.10 (A)  
world, UN report, 13.30  
Infofair, 16.35  
Inland Revenue  
*Annual Report*, 20.44  
statistics, 12.28, 16.32  
input-output  
comparable tables for 1954 and 1963, 14.8  
development of, 12.1 (A)  
instrument engineering, Order VIII, 20.37  
*Insurance Business Statistics*, 14.16  
Integrated Statistical Information System (ISIS),  
16.14 (A)  
international comparisons  
sickness absence, 18.25  
taxes and social security contributions, 19.31  
International Computing Centre, 15.22  
International Standard Industrial Classification, 15.23,  
15.24  
investment, plant and machinery, 15.22
- Journal of the Royal Statistical Society*, 12.31, 17.31
- KOS, 18.27, 19.25
- labour  
costs, 12.20, 15.17, 16.21, 20.42  
force survey, 20.42  
regional projections of supply, 17.24  
statistics, historical, 13.26  
turnover, 18.27  
*Labour Statistics*  
*Year Book 1969*, 16.20  
*Year Book 1970*, 19.23  
landlords, survey of, 13.19  
laundries and dry cleaners, ending of monthly turnover  
inquiry, 16.35  
laundry and dry cleaning workers, pay, 13.25  
library and information service, census of staff, 17.25  
licensing, heavy goods vehicles, 20.20 (A)  
*List of Principal Statistical Series*  
*and Publications*, 17.28  
amendments, 18.37, 19.37, 20.48  
local authority areas, sample surveys, 15.15  
low income families, 15.14, 18.25  
low-paid workers, circumstances of, 13.25

## manpower

- catering, 20.33
- civil service, 16.9 (A)
- computers in offices, 20.33
- fire service, 16.22
- librarians, census of, 17.25
- planning, 16.9 (A)
- probation officers and social workers, 19.25
- qualified, Census 1966, 13.21, 15.16
- qualified, earnings of, 12.19
- qualified, follow-up survey, 1971 Census, 18.25
- qualified, statistical sources, 17.11(A)
- scientific and technological, 14.6
- statisticians in employment, 18.34

## Manpower Studies

- No. 11 Catering, 20.33
- No. 12 Computers in Offices, 20.33

manufacturing industry, new monthly index of wages and salaries, 14.7

marketing, food, trends in the UK, 18.7 (A)

## medical statistics

- cancer incidence, 17.20
- epidemiology and occupational medicine, 20.1 (A)
- hospital in-patient enquiry, 17.20, 19.23
- medical tables, 17.21

mentally handicapped patients in hospital, census of, 19.23

## methodology

- measuring reliability, 18.30
- new system of industrial statistics, 19.10 (A)
- public expenditure, Handbook on, 20.44
- relative price effect, 18.12 (A)
- seasonal adjustments, 13.24, 14.7, 17.24
- snapshot moments, 19.30
- statistical surveys, 13.6 (A)
- variability problems, 18.30
- yield curves for gilt-edged stocks, 20.39

## migration

- International Passenger Survey, 15.12
- population, 15.12

money stock (supply), 12.26, 16.29, 17.27, 20.39

*Monthly Digest of Statistics*, 12.29, 13.29

mortality by occupation, 16.17

motor industry statistics, 13.28

motor vehicles, new style registration form, 18.29

## national accounts

- constant price estimates rebasing on 1970, 16.33
- improving the accuracy of GNP, 18.1 (A)

national and sector balance sheets, 14.14

national balance sheets, 20.39

## National Board for Prices and Incomes

- contract cleaning workers, 13.25
- garages, 13.24
- hours of work, overtime and shiftworking, 13.24
- laundry and dry cleaning workers, pay, 13.25
- low-paid workers, circumstances of, 13.25
- NHS ancillary workers' pay, 13.25
- solicitors, remuneration of, 13.25
- statistical surveys, methodology, 13.6 (A)

National Coal Board, *Annual Report*, 19.27

*National Food Survey*, 12.22, 16.24

National Health Service, ancillary workers' pay, 13.25

*National Income and Expenditure, 1971*, 15.21

National Income and Expenditure, percentages derived from, 15.21, 19.30

*National Institute Economic Review*, 12.30, 14.17, 16.32, 18.32, 19.32, 20.46

*New Earnings Survey 1970*, 12.18, 15.16

*New Earnings Survey 1971*, 12.19, 16.21, 19.24

*New Earnings Survey, 1972*, 20.33

*New Earnings Survey, 1973*, 20.33

## Northern Ireland

agriculture, 12.24

Census of Production for 1968, 19.27

education, 13.20, 14.6, 16.32, 17.30, 20.46

family expenditure survey, 12.28

housing, 17.23

reorganisation of Ministry of Health and Social Services, 16.33

survey of general practice, 18.31

survey of labour costs, 12.20

occupational medicine, 20.1 (A)

occupational pension schemes, 15.15, 20.28

occupations, classification of, 12.17, 18.27, 19.25

## OECD countries

aid statistics, 12.27, 14.15

financial statistics, 14.16

## official statistics

economic statistics, 17.31

guide to, 14.15, 17.28, 18.37

use of, in firms, 17.5 (A), 17.7 (A)

Organisation of Professional Users of Statistics, 17.32

## output

based gdp preliminary estimates, 18.30

measurement, 18.32

measurement for public services, 16.20

per head, 12.5 (A)

service sector changes, 18.32

use of net output statistics, 12.5 (A)

overseas aid, 12.27, 14.15, 16.27, 20.40

overseas sterling area, 17.27

- overseas trade, published sources, 13.28
- Overseas Trade Statistics*
  - Guide to the Classification of*, 20.45
  - of the United Kingdom*, 13.29
- overseas travel, 13.28
  
- Parliament, Members' salaries review, 16.21
- pensions
  - invalidity, 16.19
  - occupational, 15.15, 20.28
  - retirement, 19.23
  - war, 12.18
  - widows, 19.23
- planning
  - for VAT, 19.1 (A)
  - in London, 17.32, 19.33
  - long range, 16.24
- politicians, official statistics for, 12.9 (A)
- population
  - Census data collection 1971, 12.13 (A)
  - census reports – see *Census of Population*
  - census tests, October 1972, 19.20
  - future Censuses of Population, 16.4 (A)
  - mid-1971 estimates, 16.17, 20.26
  - mid-1972 estimates, 20.26
  - mid-1971 projections, 18.24, 19.20, 20.27
  - projections, 14.3, 14.4, 20.27
  - Projections Booklet*, 19.20
  - regional projections, 20.27
  - seminar on data and use of computers, 16.30
- ports, unit transport, 12.25
- pound, internal purchasing power of, 13.14 (A)
- price indices
  - regional, retail, 15.21
  - wholesale, and value added tax, 19.30
- prices and earnings 1951–69
  - econometric assessment, 13.21
- prices, seasonal variations in retail prices, 16.28
- Principal Statistical Series and Publications, List of*, 17.28
  - amendments, 18.37, 19.37, 20.48
- probation officers and social workers, work and pay, 19.25
- Production, Census of
  - for 1968, 13.31, 15.17, 16.22, 17.25, 18.28, 19.25, 20.13 (A), 20.35
  - for 1970, 14.8, 16.22
  - annual censuses, 20.12 (A)
  - changes in annual censuses, 20.36
  - post-census survey 1970, 17.7(A)
- Production, Census of, for Northern Ireland, 19.27
- Profit from Facts*, 15.23, 17.5(A)
  
- 20.56
- public expenditure
  - Handbook on Methodology*, 20.44
  - plans, 13.29, 20.44
  - relative price effect in, 18.12 (A), 20.44
- public services, research project on output measurement for, 16.20
- purchases inquiry, 20.13 (A)
  
- qualified manpower
  - Census 1966, 13.21, 15.16
  - earnings survey, 12.19
  - follow-up survey, 1971 census, 18.25
  - statistical sources, 17.11(A)
  
- rebasings
  - constant price estimates in 1970, 16.33
  - indices of rates of wages and normal hours, 19.24
  - retail sales index, 19.25
- refuse disposal, 14.5
- Regional Statistics, Abstract of*, 16.31, 20.43
- regions
  - attendance allowance, 16.19, 20.30
  - earnings, 15.17, 20.33
  - Economic Activity Tables*, 12.17
  - employee activity rates, 13.21
  - exceptional needs payments, 20.30
  - house condition surveys, 17.23
  - housing surveys, 15.20, 17.23, 19.31, 20.31
  - incapacity statistics, 13.19
  - labour supply projections, 17.24
  - population changes, 20.27
  - population projections, 20.27
  - retail prices indices, 15.21
- relative price effect, in public expenditure, 18.12 (A), 20.44
- Rent Acts, report of Francis Committee, 13.19
- rent tribunal cases, 13.19
- rents, farms, 17.27
- Report on Overseas Trade*, end of publication, 13.28
- research and development
  - expenditure, 12.22
  - inquiry, 20.13 (A)
- reserve ratios, 16.29
- retailers, commodity analysis of turnover of large, 20.35
- retail prices survey, 20.43
- retail prices index
  - measure of internal purchasing power, 13.14 (A)
  - seasonal variations, 16.28
- retail prices indices, regional, 15.21
- retail sales, index, rebasing, 19.25
- retirement pension, 19.23
- Review Body on doctors' and dentists' remuneration, 18.31



- Review Body on Top Salaries  
interim report, 18.31  
Ministers of the Crown and Members of Parliament, 16.21
- revised figures (policy), 16.1 (A)
- Road Accidents, 12.24  
computerised system of London statistics, 18.33  
road goods transport, 1967/68 survey, 16.26  
road traffic censuses, 15.20, 20.39
- Safety and health at work, 19.22
- salaries  
index of, 17.25  
Members of Parliament, 16.21  
review body on top, interim report, 18.31
- sample surveys in local authority areas, 15.15
- sampling from electoral register, 18.25
- sampling methods, as used in survey of handicapped, 14.1 (A)
- schools, pupils' curricula, 14.6
- science, qualified manpower, 14.6
- Scotland  
*Annual Report of Registrar General*, 12.17, 13.19, 15.12, 16.18, 19.22, 20.27  
births, by parents' country of birth, 15.12, 16.18, 17.20  
Census, 1971, 13.19, 14.3, 16.17, 17.19, 18.25, 19.21, 20.27  
changes in rural employment, 17.27  
deaths by cause, 14.4  
deaths by deceased's country of birth, 17.20  
divorces, 20.27  
*Educational Statistics*, 15.12, 17.34, 18.31  
farm rents and land values, 17.27  
field tests, possible future census methods, 20.27  
life tables, 13.19  
local elections, 15.12  
mid-1971 estimates, 16.18  
migration, 12.17, 13.19, 15.12, 16.18, 17.20, 18.25, 19.22  
mobility of farm workers, 17.27  
population, 1969, 13.19  
population, 1971 estimates, 17.20  
population projections to 2001, 14.4  
population projections to 2011, 18.25  
preliminary evaluation of coverage, 1971 Census, 19.21  
regional population estimates mid-1971 and projections to 1991, 19.22  
secondary education – manpower planning, 20.43  
secondary schools – staffing survey, 17.34
- Scottish Abstract of Statistics*, 14.16  
*Scottish Economic Bulletin*, 14.16  
*Scottish Statistics, Digest of*, 14.16
- seasonal adjustments  
employment vacancies, 17.24  
overseas trade figures, 13.24  
unemployment, 14.7, 17.24, 19.24  
seasonal variations, retail prices index, 16.28  
service output changes, 18.32  
service trades, ending of monthly turnover inquiries, 16.35  
shipping movements, 12.25
- sickness, invalidity and injury  
absence, international comparisons, 18.25  
attendance allowance, 16.19, 17.22, 20.29  
benefits, 15.13, 16.19  
Civil Service absence survey, 13.27, 18.25  
claims for benefits, 15.13  
estimates of numbers incapacitated, 15.13, 18.25  
survey into sickness and disability, 17.21
- sick pay schemes, 15.15
- Social Science Research Council  
Social Statistics Users Conference, 16.34  
Statistics Users Conference, 12.31, 14.18
- social security  
attendance allowance, 16.19, 17.22, 20.29  
exceptional needs payments, 20.30  
family income supplement, 15.14, 17.21, 20.29  
hostels, lodging houses, and their users, 17.22  
homeless single persons, 17.22  
invalidity benefit, 16.19  
reception centre users, 16.20  
research, 12.18, 17.21  
statistical and research report series, 17.22
- Social Statistics Users Conference, 16.34  
*Social Trends*, 12.28, 16.30, 20.43
- solicitors, remuneration of, 13.25
- Standard Industrial Classification, 15.24
- standard statistical sectors for Greater London, 15.25
- Statistical Series and Publications, List of Principal*, 17.28  
amendments, 18.37, 19.37, 20.48
- statistical sources, 12.30, 17.11(A)
- statistical surveys, methodology, 13.6 (A)
- statisticians in employment, 18.34
- statistics library, Warwick University, 18.35
- Statistics Users  
Business, Conference, 18.35  
Conference, 12.31, 14.18  
Organisation of Professional, 17.32  
Social, Conference, 16.34
- sub-regions, economic activity tables, 12.17
- supplementary benefits  
reception centre users, 16.20  
sick and disabled men receiving, 17.21  
unemployed, 17.22

taxes and social security contributions, international comparisons, 19.31  
 teachers deployment in secondary schools, 14.6  
 Technological Manpower, Studies in, 14.6  
 technology, qualified manpower, 14.6  
 tenants, survey of, 13.19  
*Tourism, Britain and International*, 17.30  
*Trade and Industry*, 13.29  
*Trade Unions and Employers Associations, Report of the Chief Registrar of*, 19.32  
 transport, statistical publications, 12.25  
  
 UNCTAD, insurance statistics, 12.27  
 unemployment  
     coloured workers, 15.16  
     flow statistics, 20.32  
     seasonal adjustments, 14.7, 15.16, 17.24, 19.24  
     statistics, 19.24, 20.31  
     supplementary benefits for, 17.22  
 unit transport, 12.25  
*United Kingdom in Figures*, 18.30  
 United Nations, *Growth of World Industry*, 13.30  
 United States, improving the accuracy of GNP, 18.1 (A)  
 Universities' Statistical Record, 19.17 (A)  
 University, Warwick Statistics library, 18.35  
  
 value added tax (VAT), 19.1 (A)  
     index numbers of wholesale prices, 19.30  
 vehicle  
     national heavy goods register, 20.20 (A)  
     production, early estimates, 20.34  
 vital statistics, 12.17, 13.18, 15.12  
  
 wages, indices of rates of, and normal hours, rebasing, 19.24  
 wages and salaries  
     Blue Book estimates, 14.14  
     index of average earnings, 15.16  
     index of salaries, 17.25  
     new monthly series for manufacturing sector, 14.7  
 Warwick University, statistics library, 18.35  
 wholesale prices  
     index numbers, value added tax, 19.30  
 widows benefits, 19.23  
 working population, projections, 15.16

CENTRAL STATISTICAL OFFICE

# ANNUAL ABSTRACT OF STATISTICS 1972

The ANNUAL ABSTRACT OF STATISTICS contains a selection of the most important statistics covering the economic, industrial and social life of the United Kingdom. The latest edition gives annual figures so far as they are available for the years 1961 to 1971, and in some tables also the early months of 1972. The Abstract contains over 400 tables covering the following subjects:

Agriculture and food	Fisheries	Passenger movement
Balance of payments	Health	Population
Banking	Housing	Prices
Construction	Industrial production	Retail trade
Climate	Insurance	Social services
Crime	Labour	Transport:
Education	Materials and manufactures	Road, rail and air
Energy	Migration	Shipping
External trade	National Health Service	Vital statistics
Finance	National income	Wages and earnings

A special feature is the comparison between the new and the old Standard Industrial Classifications highlighting the changes that have been made.

The Annual Abstract of Statistics, prepared by the Central Statistical Office, is a great boon to anyone who needs instant reference to a wide range of statistics.

Price £2.20 (by post £2.45)

*Obtainable from:*

HER MAJESTY'S STATIONERY OFFICE

at the addresses on cover page iv or through booksellers

HER MAJESTY'S STATIONERY OFFICE

*Government Bookshops*

49 High Holborn, London WC1V 6HB  
13A Castle Street, Edinburgh EH2 3AR  
109 St. Mary Street, Cardiff CF1 1JW  
Brazenose Street, Manchester M60 8AS  
50 Fairfax Street, Bristol BS1 3DE  
258 Broad Street, Birmingham B1 2HE  
80 Chichester Street, Belfast BT1 4JY

*Government publications are also available  
through booksellers*

30p net

Annual subscription £1.30