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Note by the Editor

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

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

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

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Dwelling stock estimates from the 1981 Census of Population

D L H Roberts, Statistician, Department of the Environment

Attempts to count dwellings in censuses and surveys in the past 30 years have met with limited success in certain areas because of the difficulties experienced in identifying dwellings in buildings containing more than one household space. A procedure was evolved for the 1981 Census to overcome many of the difficulties encountered in previous censuses, but because of expenditure constraints it has not been possible to incorporate the full procedure in the 1981 Census. This paper suggests how estimates of dwelling stock can still be obtained from information on housing circumstances that will be collected in the 1981 Census.

Background

The concepts of dwellings and household space are fundamental to an understanding of housing statistics. A dwelling is defined as a building or any part of a building that forms a separate and self-contained set of premises designed to be occupied by a single family or household. The term household space is used to describe the accommodation occupied by a household for living purposes, or vacant accommodation intended for occupation by one household (a household is one person living alone or a group of people living together and sharing common housekeeping).

Thus a dwelling is defined in terms of 'bricks and mortar' to change the number of dwellings in a building requires structural alteration. In contrast, the number of household spaces in a building can be changed at the whim of the occupants: a single family house can change from one household space to two simply by letting one room to a non-member of the household as, say, a bed-sitting room. Each of these concepts has its value in describing the state of housing circumstances. The number of dwellings, number of rooms and amenities inform us about the size and the physical state of the housing stock. The number of household spaces and the characteristics of the occupants tell us how the stock is occupied and by whom.

The vast majority of households each live in a separate dwelling; four out of five households are the sole occupants of houses or bungalows, and one in eight households are sole occupants of purpose-built flats or maisonettes. The remaining eight per cent of households live in multi-occupied buildings where household spaces may not coincide with separate dwellings. (The term multi-occupied building is used to describe any building other than a block of purpose-built flats or maisonettes that contains more than one household space.)

Multi-occupied buildings cover a wide range of circumstances. Most are large houses that were originally built for occupation by a single household. Some of these properties have been converted to self-contained flats that provide a degree of privacy and self-containment at least as great as that found in purpose-built flats. In others there has been minimal structural change with, for example, rooms let as bed-sitting rooms and bathroom, WC and even kitchen shared by a number of households, or an unconverted semi-detached house may be occupied by two households, one living upstairs and the other downstairs. It is the variety of circumstances in these multi-occupied buildings that has made the identification of dwellings in both censuses and surveys problematic.

The following section briefly describes methods of identifying and counting dwellings used in past censuses and surveys: this is followed by a description of the procedures to be followed in the 1981 Census. (For a fuller account of previous methods used in Censuses see references 2 and 3.)

Count of dwellings in previous censuses

The classification of dwellings other than in multi-occupied buildings has varied little in post war censuses. Houses which were occupied by one household and which had not been altered for occupation by more than one household, bungalows, purpose-built flats and maisonettes, and flats attached to premises otherwise used for non-residential purposes (shops, offices, etc.) have been counted as separate dwellings in all censuses. Private residences in the grounds of non-private establishments such as hotels and hospitals have also been counted as dwellings in all censuses other than in 1951: this group includes married quarters in defence establishments which meet the condition of being structurally separate. In the 1961 Census and 1966 Sample Census households occupying flats or suites of rooms within the main building of an establishment were also identified as occupying separate accommodation; but this procedure was discontinued in 1971.

In all censuses non-permanent buildings (e.g. caravans, chalets, houseboats) have been counted as separate dwellings only if they were occupied on census night or were someone's usual residence.

The treatment of multi-occupied buildings, however, has varied from census to census. In the 1951 Census the term dwelling included '. . . any structural subdivision of buildings or houses'. The structural subdivision was defined as 'a portion of a house or building which has been structurally designed or adapted for use as a separate self-contained dwelling. Its distinctive feature is that is has a separate front door of its own, apart from the street door, if any, giving entrance to the house or building as a whole'.

Instructions and examples given to enumerators in 1961 and 1966 aimed in general at adding precision to the 1951 concept. Generally a dwelling was required to have more than one living room in addition to the kitchen and bathroom and bed-sitting rooms were precluded from being counted as separate dwellings. In 1966 a dwelling was rigorously defined and illustrations were issued to enumerators to show how the definition worked in specific circumstances. In particular if several households lived in flats in a converted house and if at least one of the flats was not self-contained behind its own front door then each flat was merely a household space and the whole house was counted as one dwelling. The only exeption to this rule was if part of the house had been permanently separated off from the rest, and had its own means of access from outside: in such circumstances the house was counted as two dwellings.

Despite the extensive training given to enumerators in the identification of dwellings the quality check on the 1966 Sample Census found that 12 per cent of multi-occupied buildings had been incorrectly subdivided into dwellings but because of compensating errors the overall impact on the estimate of dwelling stock was minimal. A test census in 1968 confirmed that enumerators experienced considerable difficulties in applying the 1966 procedures. As a result of this a new procedure was tried in the 1971 Census.

1971 Census

The 1971 concept of a dwelling was based on classifying households according to the degree of privacy they enjoyed. Households were asked on the census form whether they shared with anyone else the use of any room or hall, passage, landing or staircase. For households reporting such sharing enumerators recorded whether the sharing was only for access to the household's accommodation, or whether the household used the space for movement between rooms (excluding bathroom, WC and small kitchen) in its accomadation. Household spaces were then grouped together into dwellings according to the extent of sharing. A household sharing space with other households where each household used the shared space for access only was counted as occupying a separate dwelling. In buildings where a household shared rooms or space to move between its rooms all households sharing that space were grouped together as occupying a shared dwelling. A household in a shared dwelling that did not share the space for moving between its rooms was said to be in self-contained accommodation within a shared dwelling.

The 1971 classification had several shortcomings: in particular some bed-sitting rooms whose occupants had to share a bathroom and WC with other households were counted as separate dwellings whereas bed-sitters had been specifically excluded in 1961 and 1966. Accordingly, in preparing its dwelling stock estimates the Department of the Environment adjusted the census figures. The first adjustment was to deduct census dwellings consisting of only one room and whose occupants lacked exclusive use of a fixed bath or shower (because some dwellings would be composed entirely of a number of such units a small offsetting allowance was made). Overall the 1971 enumeration of dwellings in England and Wales was reduced on this account by 130,000. The second adjustment was to add on an estimate for reasonably separate dwellings, that is household spaces of three or more rooms in self-contained accommodation within shared dwellings whose occupants had the exclusive use of all the basic amenities: although not separate dwellings by census definition these are considered to provide adequate accommodation for a household. Overall 22,000 reasonably separate dwellings were added in England and Wales giving a net reduction of 108,000 dwellings on the census count. This represented less than 1 per cent of total dwelling stock but in areas such as Kensington and Chelsea the adjustment was much more significant. Unfortunately the arbitrary nature of these adjustments prevented their being carried through to other census tabulations on dwellings such as the distribution of the number of household spaces in shared dwellings.

In the 1977/78 National Dwelling and Housing Survey the dwelling stock was estimated using information given by households on the extent of sharing with other households. Households were asked what rooms, if any, they shared with other households and whether when moving between the rooms in their accommodation they had to use any space also used by other households. Households sharing space were further asked whether the space was shared solely to move between the bathroom and/or WC and the rest of the accommodation, and the number of households sharing that space. Analysis of the data was complicated because information was not always available from each household in multi-occupied buildings: nevertheless a procedure was developed to estimate the number of bed-sitting rooms, reasonably separate dwellings and the number of dwellings (see reference 5 details).

1981 Census of Population

For the 1981 Census a simplified method of classifying household spaces will be used. This will be based on the assignment of an access code to each household space. This code which takes the values 0, 1 or 2, is determined solely by whether or not the household shares with another household the entrance to the building from the outside and regardless of the structural separateness of household spaces within the building. Code 0 applies to each household space having its own separate entrance to the building from the outside: it applies of course in all instances where there is only one household space in a building. Code 2 is used to distinguish purpose-built flats or maisonettes. Code 1 applies where the household shares the entrance from outside the building (other than purpose-built flats or maisonettes) with one or more households.

On the census form itself households who share the entrance to the building with other households will be asked 'Are your rooms (not counting a bathroom or WC) enclosed behind your own front door inside the building?'.

In analyses of census data household spaces will be classified on the basis of their access code, and answers to the questions on sharing, number of rooms and use of a bath and WC. The following seven categories will be identified for permanent buildings:

a. Purpose-built flats or maisonettes: all household spaces with access code 2.
b. Accommodation with a separate entrance from outside the building: all household spaces with access code 0.
c. Self-contained accommodation with exclusive use of bath and inside WC and two or more rooms, with a shared entrance from outside the building.
d. Self-contained accommodation with exclusive use of bath and inside WC and one room with a shared entrance from outside the builing (flatlet).
e. Other self-contained accommodation, with a shared entrance from outside the building.
f. Not self-contained accommodation with one room but without exclusive use of bath and inside WC, with a shared entrance from outside the building (bedsitting room).
g. Other not self-contained accommodation with a shared entrance from outside the building.

When no household is present on census night enumerators will be asked to record the access code, an estimate of the number of rooms in the accommodation and where appropriate the answer to the sharing question. However, in the absence of information on amenities for such household space in multi-occupied buildings it will not be possible to distinguish between categories c, d and e and between categories f and g. Household spaces not occupied on census night containing only one room will be classified as not self-contained.

Estimate of total dwellings in 1981

To obtain the actual number of dwellings information on the arrangement of each household space in a multi-occupied building would be required in addition to the information that will be recorded in the Census. However a reasonable estimate can be derived from information in previous censuses about the combination of self-contained and not self-contained accommodation in shared dwellings. Previously mentioned features of the 1971 Census data preclude a detailed study of likely combinations but a crude estimate in permanent buildings can be obtained by taking the number of self-contained household spaces (classes a to e) and adding an appropriate proportion p of the not self-contained household spaces. The proportion p for an area can be estimated from 1971 Census data as described below.

By and large the classification of household spaces in multi-occupied buildings into self-contained and not self-contained will be the same in the 1981 Census as in the 1971 Census. There are, however, two categories which in 1971 were classified as self-contained but which in 1981 will be classed as not self-contained these are–

i. Household spaces in multi-occupied buildings (other than purpose-built flats) with one room and whose occupants lacked exclusive use of bath and inside WC;
ii. Household spaces in multi-occupied buildings (other than purpose-built flats) with only one room where no household is present on census night.

If we call the number of self-contained household spaces in 1971 A, the number in i. and ii. above B, and the number of not self-contained household spaces in 1971 C, then

$A-B$=Number of self-contained household spaces in 1971 using the 1981 classification, and

$B+C$=Number of not self-contained household spaces in 1971 using the 1981 classification.

The number of dwellings in 1971 (D) is the sum of the number of unshared dwellings, a number of shared dwellings composed entirely of self-contained household spaces, a number of shared dwellings composed of both self-contained and not self-contained household spaces, and a number of shared dwellings composed entirely of not self-contained household spaces. If the number of household spaces falling into each of these categories and the number of dwellings so formed were known appropriate factors could be applied to the 1981 counts of self-contained and not self-contained household spaces to obtain an estimate of the dwelling stock. Unfortunately because of the treatment of bedsits in 1971 it is not possible to estimate the number of household spaces falling into each of these categories. However a first approximation to the number of dwellings could be obtained by taking the total number of self-contained household spaces and adding a proportion p of the not self-contained household spaces. Assuming that the average number of self-contained household spaces, and not self-contained household spaces per shared dwelling is the same in 1981 as in 1971 then the proportion p can be estimated by equating the 1971 dwelling stock with the number of self-contained household spaces plus a proportion of the not self-contained household spaces using the 1981 criteria of self-containment: this yields

$$D = A - B + p(B + C)$$

$$\text{giving } p = \frac{D - (A - B)}{B + C}$$

Published results from the 1971 Census county reports provide the necessary information to calculate p for counties and London Boroughs, apart from the numbers of the vacant household spaces in part occupied shared dwellings. Ignoring these latter cases yield the estimates of p given in column 1 of Table 1.

Two adjustments can be made to these estimates. First the DOE estimates of dwelling stock in 1971 were obtained by only adjusting for occupied bed-sits and reasonably separate dwellings. No deduction was made for bed-sits with no-one present on census night. In 1971 there were some 34,000 one room dwellings vacant or with no-one present on census night. Further, households in self-contained accommodation in shared dwellings with exclusive use of bath and inside WC and two rooms might be considered to be occupying a reasonably separate dwelling: in 1971 there were some 7,000 in this category. If the dwelling stock is revised to take account of these factors and this revised figure used in the above equation estimates p' are obtained which are also given in Table 1. The impact of these adjustments is greatest in areas where there are large numbers of bed-sits such as Kensington and Chelsea, Westminster, Camden, Manchester and Liverpool.

The second adjustment is for vacant household spaces in part occupied dwellings. 1971 Census information about accommodation of households absent on census night shows around 18,000 household spaces in part occupied dwellings of which one-third were self-contained and two-thirds were not self-contained. If there were double this number of vacant household spaces in part occupied dwellings (a not unreasonable assumption based on NDHS results) the estimate p' in England would fall from 0.26 to 0.23. Assuming that the geographical spread of these vacant household spaces was the same as similar household spaces in occupied shared dwellings yield the estimates p'' in Table 1.

In general it appears that in areas where sharing is endemic there are a relatively high number of sharing households per shared dwelling. The appropriate fraction of not self-contained accommodation to take in these areas would appear to be around 0.2. At the other extreme are areas where sharing would appear, in most instances, to consist of two households sharing a dwelling and relatively few instances of several households sharing. In these cases the appropriate fraction would appear to be around 0.3.

By and large results from NDHS confirm the figures indicated by the 1971 Census although it is not possible to compare precisely because of the different format of NDHS questions.

Vacant dwelling and tenure of dwellings

In the Census a vacant building will be classified as a single household space unless there is clear evidence that it is usually occupied by more than one household. So, in general, not self-contained vacant household spaces are only recorded in part occupied dwellings and none of these form a vacant dwelling. The number of vacant dwellings on the census night can therefore be taken as the number of self-contained vacant household spaces. This will yield an over-estimate since there will be some vacant self-contained household spaces in part occupied dwellings, but it is unlikely to be at all substantial.

The tenure of occupied dwellings can also be readily obtained. In 1971 the tenure of multi-occupied dwellings was taken to be owner occupied if the dwelling contained an owner occupier household, local authority if there was a local authority tenant but no owner occupier, privately rented unfurnished if there was a household renting privately unfurnished and no owner occupier nor local authority tenant, and privately rented furnished if there was a household of that tenure and no household of any other tenure. As would be expected there were few instances where a dwelling contained more than one owner occupier household or household renting from a local authority. Numbers of households and dwellings in these tenures in 1971 are given in Table 2. It is clear that a close approximation to the tenure of occupied dwellings in 1981 would be obtained by assuming that the number of owner occupied dwellings equals the number of owner occupier households, and that the number of local authority dwellings equals the number of households renting from a local authority. The remainder of the occupied dwellings in 1981 would then equate with the other categories in 1971.

References:

1. *The 1981 Census of Population*, July 1978 (Cmnd 7146) (HMSO) (Price 40p net).
2. *Census 1961, Great Britain, General Report*, (HMSO 1968).
3. *Census 1971, England and Wales, General Report, Part I Definitions* (HMSO 1979) (Price £10.75 net).
4. *A Quality Check on the 1966 Sample Census in England and Wales*; by Gray and Gee (HMSO 1972).
5. *National Dwelling and Housing Survey* (HMSO 1978) (Price £8.50 net).

Table 1

1981 Census dwellings: required proportions of not-self contained accomodation

Counties	*p*	*p'*	*p''*
Greater Manchester	0.32	0.23	0.21
Merseyside	0.34	0.29	0.26
South Yorkshire	0.32	0.26	0.24
Tyne and Wear	0.30	0.23	0.20
West Midlands	0.35	0.30	0.28
West Yorkshire	0.30	0.21	0.20
Avon	0.33	0.30	0.26
Bedfordshire	0.33	0.30	0.27
Berkshire	0.32	0.29	0.27
Buckinghamshire	0.32	0.29	0.27
Cambridgeshire	0.30	0.27	0.24
Cheshire	0.37	0.30	0.28
Cleveland	0.34	0.26	0.24
Cornwall	0.41	0.35	0.31
Cumbria	0.36	0.33	0.30
Derbyshire	0.35	0.30	0.28
Devon	0.34	0.30	0.25
Dorset	0.31	0.23	0.21
Durham	0.37	0.28	0.26
East Sussex	0.28	0.22	0.19
Essex	0.35	0.30	0.27
Gloucestershire	0.33	0.28	0.24
Hampshire	0.36	0.32	0.29
Hereford and Worcester	0.36	0.32	0.29
Hertfordshire	0.37	0.33	0.30
Humberside	0.36	0.29	0.26
Isle of Wight	0.39	0.28	0.25
Kent	0.32	0.28	0.25
Lancashire	0.36	0.25	0.22
Leicestershire	0.31	0.27	0.25
Lincolnshire	0.33	0.28	0.26
Norfolk	0.37	0.31	0.28
Northamptonshire	0.34	0.30	0.27
Northumberland	0.47	0.29	0.26
North Yorkshire	0.34	0.26	0.23
Nottinghamshire	0.31	0.26	0.23
Oxfordshire	0.32	0.27	0.25
Salop	0.37	0.31	0.28
Somerset	0.37	0.34	0.30
Staffordshire	0.38	0.34	0.31
Suffolk	0.36	0.32	0.28
Surrey	0.34	0.30	0.28
Warwickshire	0.33	0.29	0.26
West Sussex	0.30	0.22	0.20
Wiltshire	0.37	0.33	0.30
England	0.30	0.26	0.23
England excluding Greater London	0.33	0.28	0.25

London Boroughs	*p'*	*p'*	*p''*
Barking	0.43	0.42	0.39
Barnet	0.33	0.31	0.27
Bexley	0.36	0.34	0.31
Brent	0.29	0.28	0.24
Bromley	0.29	0.26	0.22
Camden	0.24	0.18	0.15
Croydon	0.31	0.29	0.25
Ealing	0.30	0.30	0.26
Enfield	0.36	0.36	0.32
Greenwich	0.33	0.32	0.28
Hackney	0.24	0.24	0.19
Hammersmith	0.24	0.22	0.18
Haringey	0.27	0.27	0.22
Harrow	0.38	0.38	0.34
Havering	0.39	0.37	0.33
Hillingdon	0.39	0.37	0.34
Hounslow	0.28	0.27	0.23
Islington	0.20	0.20	0.16
Kensington and Chelsea	0.30	0.17	0.16
Kingston	0.27	0.23	0.20
Lambeth	0.26	0.25	0.20
Lewisham	0.27	0.27	0.22
Merton	0.31	0.29	0.25
Newham	0.26	0.26	0.21
Redbridge	0.34	0.33	0.29
Richmond	0.31	0.29	0.25
Southwark	0.25	0.24	0.19
Sutton	0.33	0.31	0.27
Tower Hamlets	0.26	0.21	0.18
Waltham Forest	0.31	0.30	0.25
Wandsworth	0.27	0.26	0.22
Westminster	0.26	0.16	0.14
Greater London	0.27	0.25	0.21

Table 2

Tenure of dwellings: 1971

	England		
	Households	*Dwellings*	*%Difference*
Tenure			
Owner-occupier	7 804 455	7 796 485	*0.10*
Rental from local authority	4 366 710	4 355 155	*0.27*
Other tenures	3 437 855	3 103 330	*10.80*

Discussion of Social Accounting Matrix with reference to Kenya

R M Allen, Chief Statistician, Overseas Development Administration

Introduction

During October and November 1978 a team of four statisticians, three funded by the then UK Ministry of Overseas Development (ODM) now the Overseas Development Administration (ODA) and one by the United Nations, worked with staff of the Central Bureau of Statistics, Kenya (CBS) on the preparation of a Social Accounting Matrix (SAM). Kenya is the third country with which ODA has co-operated in a project of this nature and other organisations have prepared SAMs for other countries.

The SAM is the presentation in matrix format of the flows of an economy. It is an alternative to the more familiar double entry presentation of the national accounts over which it has several advantages. In particular, it is more concise and provides a complete overview of flows within the economy; it can easily be disaggregated (or aggregated) without altering the basic format of the presentation; and it provides an internally consistent data framework for a wide range of economic modelling.

This system is based to a great extent on a social accounting framework developed by Sir Richard Stone and his associates at Cambridge in the early 1960s. That particular system was prepared as part of the Cambridge Growth Project which was to prepare a disaggregated model of the UK economy. This is only one of many possible social accounting frameworks and the choice of format must depend mainly on the purpose or purposes for which the system is to be used but also on the nature of the economy and the availability of the necessary data.

In the introduction to the System of National Accounts (SNA) recommended by the United Nations there are a number of statements about future developments of which perhaps the most significant in relation to the present study is 'Information on the distribution and re-distribution of income, though much discussed during the preparation of the report, is confined to flows between broad sectors and no attempt is made to integrate into the system detailed information relating to the distribution of personal income by, say, size or household composition.' Over the last few years it has been much more generally recognised that the distribution and re-distribution of factor income is at least equally as important as production, consumption and accumulation in holding the key to *socially acceptable* development. SAMs with which ODM has been associated have been developed as a possible framework to study these aspects of an economy.

ODA's interest in these SAMs stems from a meeting in 1973 with Graham Pyatt who had worked with Stone and the Cambridge Growth Project and subsequently with others had prepared SAMs for Iran and Sri Lanka as a part of the International Labour Office (ILO) World Employment Programme (WEP). These were attempts to provide a more suitable framework for the study of employment, distribution of income and poverty. Statistics Division of ODM decided to support further work in this area because they believed it could in time certainly become an important aspect of the work of statistical organisations throughout the world. Pyatt, who is now continuing in this work at the World Bank, was then at the University of Warwick and in 1974 ODM jointly with the University of Warwick team carried out at the first of their SAM missions which was in Swaziland. This was followed by a SAM for Botswana in 1977. These, plus the Kenya SAM, are clearly based on the work done in Iran and Sri Lanka and some of Pyatt's former colleagues at Warwick are still closely associated with the ODM programme.

A description of the Sri Lanka work which contains much more detailed background information than can be given here is contained in *Social Accounting for Development Planning* by Pyatt, Roe et al.

The Matrix

It is not the purpose of this article to examine in detail the results of the matrix prepared for Kenya, nor indeed to reproduce it in full. An aggregated version, however, is set out in the Table 1 below as an illustration of the type of SAM prepared.

It is conventional that incomes are entered in the rows and outgoings in the columns of the matrix. The matrix includes both capital and current transactions, the link between them provided by the savings of institutions and capital formation. Each row of the matrix together with its corresponding column represents an account, e.g. row 2 represents the total income of households and column 2 represents the disposal or expenditure of that income. Since the system embraces the acquisition of financial assets and liabilities total income is identical to total expenditure and the row and column total for each account must balance. Most of the accounts represented

Table 1

An Aggregated Version of the Kenya SAM – 1976

£K Million

			Expenditures											
			Current Institutions						Capital Institutions					
			Factors	Households	Enterprises	Government	Production	Rest of World	Households	Enterprises	Government	Rest of World	Financial claims liabilities	Total
			1	2	3	4	5	6	7	8	9	10	11	
Receipts	Factors	1					1267	17						1284
Current Institutions	Households	2	882	17	164	9		5						1077
	Enterprises	3	328	7	16	12		8						371
	Government	4	2	95	80	7	155	10						349
	Production	5		790		254	911	478	96	114	80			2723
	Rest of world	6	72	91	7	2	390							562
Capital Institutions	Households	7		77									36	113
	Enterprises	8			104								203	307
	Government	9				65						9	53	127
	Rest of world	10						44					30	74
	Financial claims – assets	11							17	193	47	65		322
	Total		1284	1077	371	349	2723	562	113	307	127	74	322	

by the rows and columns in Table 1 will in practice be disaggregated. The Kenya SAM contains 77 rows and columns and, in principle, depending on the amount of detail required it could be further expanded.

Each entry in the matrix represents a transaction between two accounts, or, if it lies on the diagonal of this matrix, within one account. In general terms it is a payment from the account of the column to the account of the row. Clearly in practice there will be a number of blanks in the matrix since there will be no transactions between many of the accounts.

The ordering of the rows and columns of a matrix can of course be varied without altering the underlying linear model on which the framework is based. The choice of the order is therefore simply one of a clear and logical order which as far as possible highlights those aspects of the economy in which there is most interest. For those matrices in which production is regarded as the most important feature of the economy it is customary to place it at the top left hand corner, i.e. in row and column 1. For the reasons set out above the distribution and redistribution of factor income has been considered the most important aspect of economic activity and the order which highlights these aspects has been chosen.

To explain the matrix in detail it is easiest to consider each pair of row and column in turn.

Factors (row and column 1)

Factor incomes are paid by each production activity. In the disaggregated version these rows and columns will show the distribution of the incomes paid by each production sector to each type of factor. In broad terms payments for factor services are either made to labour or are the gross operating surplus or profits of enterprises which include depreciation for consumption of fixed capital. Income paid to labour can be further disaggregated to show the type of labour input into different productive activities.

Various criteria are possible for this particular disaggregation but one or a combination of the following are most likely to be useful: level of skill, nationality, ethnic group or status, i.e. self-employed, family worker, etc.

In the Kenya SAM the disaggregation of labour was as follows:

(i) Unskilled and semi-skilled workers.
(ii) Skilled workers.
(iii) Office workers and semi-professionals.
(iv) Professionals.

These groups were defined in terms of the much more detailed classifications used for the Labour Enumeration Survey and the Labour Force Survey. Although the classification was reasonably satisfactory, it might have been better to sub-divide group (iii) as this covers a very wide range of skill-levels and thus rates of payment. Group (iv) included all teachers which could be misleading as it resulted in approximately 48 per cent of the total payments to professionals being recorded in the production activity "Producers of Government Services – Education" and 87 per cent of the total labour costs of this activity being recorded as paid to professionals. In relation to levels of skill and necessary training required it would have been more appropriate to have classified many of these teachers as semi-professional in order that the results of the education sector might have been more compatible with those for other production activities.

Gross operating surplus or profits were divided by production activity to 'Consumption of fixed capital' where estimates for this had been prepared by the CBS, with the balance recorded as 'self-employed and family workers' for the activities of unincorporated enterprises and as 'operating surplus' for the activities of corporate and quasi-corporate enterprises.

Table 2

Factor Accounts

Incomings or origin of factor income (row 1)	£K million
1. From domestic production activities (column 5)	1267
2. From abroad (column 6)	17
Total factor income	1284
Outgoings or distribution of factor income (column 1)	
1. To households; payments to labour and the profits of unincorporated enterprises (row 2)	882
2. To enterprises; the profits or operating surplus of establishments of incorporated enterprises (row 3)	328
3. To government; the operating surplus of government industries (row 4)	2
4. To the rest of the world (row 6)	72
Total factor income distributed	1284

It should be noted that the entry at row 1, column 5, 1267 is total value added or GDP at factor cost; and that GDP at factor cost plus factor income from abroad 17 (row 1, column 6) minus factor income paid abroad 72 (row 6, column 1) is GNP at factor cost, 1212.

Institutions

The next accounts are the current transactions, income and outlay in the terminology of the SNA, of the institutions which in the outline have been divided into Households, Enterprises and Government. Each of these will be further divided and it is the further sub-division of households which together with the division of the factors of production already discussed is the most important feature of the type of SAMs being considered.

a. Households (row and column 2)

Ideally the criteria used for the specification of the household groups should be those which will lead to reasonably homogeneous groups which are also relevant to government policy options. That is each group must have sufficient common interest that the effects of changes in circumstances will affect all, or at least the majority, of the units within it in an approximately uniform way. Clearly the ideal is impossible to achieve completely since no two units will necessarily react in the same way to a change in circumstances; nor can all possible changes in circumstances whether arising from future government policy or otherwise be foreseen; nor is the information required for such detailed classification ever likely to be available in any country. The particular groupings required for further analyses of government policies or options must determine the sub-divisions chosen. However the ideal will have to be modified according to the data available or which can reasonably be expected to be made available. It is essential that each group should be strictly defined and its member households easily identified. Since households are groups of individuals, there cannot in general be a one-to-one relationship between household and factor classification, but the choice of possible criteria for the sub-groups is very wide. Possibilities are location, i.e. rural, urban or by region; total income level, which is clearly of importance but may not be sufficient in itself; characteristics of head of household or principle income earner, i.e. occupation, education, sex or ethnic group, etc; activity of household, e.g. agriculturists, possibly further sub-divided, fishermen, traders, etc.; or type of housing. The possibilities are great and it cannot be emphasised too much that it is upon the choice of appropriate household classification that much of the usefulness of the SAM will depend.

For most countries, and Kenya is no exception, the obvious first stage of disaggregation is to separate urban and rural households. Clearly both groups have to be sub-divided further if the type of homogeneous groups discussed above are to be created. In the case of Kenya, the major variable determining economic behaviour of urban households is income. Consideration was given to various characteristics which might have been directly related to income and therefore might provide the desired sub-classification. In particular it was thought that the skill level of the head of the household or principal wage earner might serve the purpose. On the assumption that the lower levels of skill, i.e. unskilled and semi-skilled, support households in the lowest income groups, any policies to stimulate those industries which are labour intensive and employ mainly the unskilled and semi-skilled would benefit the lowest income families. Such a classification would have also eased the mapping of factor income to households. Doubts were, however, raised as to whether there was a close relationship between skill level and income. It was suggested that wages varied so greatly between industries and between individual firms within industries that unskilled labour in one industry or firm may well be paid considerably more than skilled or clerical labour in another.

In the circumstances it was decided therefore to classify urban households into three income levels with boundaries at K 6,000/– and K 20,000/– p.a., which we were advised were realistic to distinguish between low, medium and high income. This classification is satisfactory for the purpose of examining income distribution but is weak for policy purposes since there are no characteristics by which the groups can be easily recognised.

For rural households the first obvious characteristic for classifications is farmers and non-farmers. For collection of agricultural data, the holdings in Kenya are classified as small farms mainly less than 20 hectares, large commercial farms in the former scheduled areas and the so called 'intermediate' farms which fall outside the other two groups. Detailed information of the small farms is available from the results of the Integrated Rural Survey conducted in 1974/75. Inspection of these results suggested that further sub-classification of these households by size of holding was justified and feasible. Boundaries of 0.5 ha, 1 ha and 8 ha were decided upon. The results also showed that the welfare of the families on the two smaller groups of holdings, i.e. up to 1 ha depended significantly on whether or not it enjoyed additional income from outside agriculture. These two groups were therefore further sub-divided into those with and without significant additional income which was set at a level of K 1200/– p.a. Thus we defined six groups of households operating small farms. The remainder of the rural population belongs to households operating other farms i.e., 'intermediate' and large farms, nomads and other landless, many of whom will be employed, some on relatively high incomes. It was intended to treat each of these groups separately with possibly a further sub-classification of the wage earners according to size of income. Available data, however, was insufficient for this purpose and as a result all had to be grouped as 'other rural' – a very unsatisfactory group of not insignificant size. In any future SAM this group should certainly be sub-divided if at all possible.

The income and expenditure of households is set out in row and column 2 and consists of factor incomes, final expenditure and transfer payments and receipts with savings as a balancing item. Factor incomes have already been discussed and final expenditure by households on goods and services is well understood. Transfers cover a very wide range of transactions but they are of the greatest importance since they are the means by which income is redistributed between institutional groups or sub-groups. The two most common transfer payments are those made in respect of interest and dividends, i.e. property income, and direct taxes. There are many other less important transfers, some of which are obligatory but also many that are voluntary such as gifts, family remittances, etc.

There is need of some explanation of the item of 17 which appears at row 2, column 2 and which has been referred to above as both transfers to households from households (receipts) and transfers by households to households (payments). In a simple aggregated system this entry would be zero since this would be the net flow of transfers between households. Since the figures in the table have been obtained by aggregating a much more detailed matrix the amount of 17 arises as the sum of net transfers between different sub-clauses of households. That is one particular sub-class (or several) received an income in the form of transfers amounting to 17 paid by other sub-classes of households.

Table 3

Household Accounts

	£K million
Incomings or receipts of factor income and transfer payments (row 2)	
1. From factor incomes (column 1)	882
2. Transfers from other households (column 2)	17
3. Transfers from enterprises, mainly interest and dividends (column 3)	164
4. Transfers from government, welfare payments, etc. (column 4)	9
5. Transfers from the rest of the world, interest, dividends and remittances (column 6)	5
Total gross income of households after receipt of redistributional payments	1077
Outgoings or transfer payments made, final expenditure and savings (column 2)	
1. Transfers to other households (row 2)	17
2. Transfers to enterprises, mainly interest (row 3)	7
3. Transfers to government, mainly taxes, etc. (row 4)	95
4. Purchase of goods and services from resident producers (row 5)	790
5. Purchase of goods and services directly from abroad and other minor transfers to the rest of the world (row 6)	91
6. Savings (the balancing item) (row 7)	77
Total transfers paid, final consumption and savings	1077

From this row and column can easily be computed the disposable income of households which is the gross income 1077 less transfer payments of 119 (if we assume that all payments to the rest of the world are for imports) equals 958. Immediately it can be seen that there has been a redistribution of income to households of 76. Secondly it can be seen that 77 of the disposable income was saved and that the balance was spent 790 on domestically produced goods and services and 91 on imported goods and services.

b. Enterprises (row and column 3)

The sub-division of enterprises is relatively a much more simple task. The most obvious division of enterprises is into financial and non-financial enterprises. Alternative or additional sub-divisions into private and public and domestic and foreign owned may also be appropriate for some countries. One other possible criterion is the size of the enterprise and where an individual enterprise or a group of enterprises dominate the economy they might be usefully separated out. Such a sub-division might be used for internal purposes but it would probably have to be merged with others for publication on the grounds of confidentiality.

To follow normal practice in Kenya enterprises were sub-classified into two categories 'private enterprises and non-profit institutions serving households' and 'parastatal bodies and public companies'. Enterprises were allocated to one or the other groups in accordance with the listing used for the national accounts of Kenya.

Table 4

Enterprise Accounts

Incomings or the income of enterprises (row 3)	£K million
1. From factor income or operating surplus (column 1)	328
2. Transfers from households, mainly interest (column 2)	7
3. Transfers from other enterprises (column 3)	16
4. Transfers from government, mainly interest and grants (column 4)	12
5. Transfers from the rest of the world, mainly interest and dividends (column 6)	8
Total income	371
Outgoings or the outlay of enterprises (column 3)	
1. Transfers to households, mainly interest and dividends (row 2)	164
2. Transfers to other enterprises (row 3)	16
3. Transfers to government, mainly taxes (row 4)	80
4. Transfers to rest of the world, mainly interest and dividends (row 6)	7
5. Savings (the balancing item) (row 8)	104
Total outlay	371

The entry of 16 at row 3, column 3 refers to inter-enterprise transfers which in a fully aggregated matrix would again be zero (see explanation under households above). In this case the net flows arise mainly from payments of interest by non-financial enterprises to financial enterprises.

c. Government (row and column 4)

Government is normally sub-divided into Central Government and Local Government but there are no reasons why other levels of governments should not be separately identified if this is considered useful and the necessary data is available. In particular in those countries which have a Federal Constitution there would clearly be advantages in showing Federal, State and other Local government activities separately.

Income and expenditure by government is set out in row and column 4 and is made up of a small amount of factor income, transfers, final consumption expenditure and again the balancing item of saving. Final consumption expenditure by government is the value, or more accurately the cost, of those goods and services produced by government for the general benefit of the population but which are not individually charged for, e.g. law and order services, defence, free education, free health services, etc.

Table 5

Government Accounts

Incomings or government current revenue (row 4)	£K million
1. From factor incomes, operating surplus of government industries (column 1)	2
2. Transfers from households, mainly taxes (column 2)	95
3. Transfers from enterprises, mainly taxes (column 3)	80
4. Transfers from other government (column 4)	7
5. From indirect taxes, mainly from production activities (column 5)	155
6. Transfers from rest of the world, interest and current aid grants (column 6)	10
Total government current revenue	349
Outgoings or government current expenditure (column 4)	
1. Final consumption expenditure (row 5)	254
2. Transfers to households, mainly welfare payments (row 2)	9
3. Transfers to enterprises, interest payments, etc. (row 3)	12
4. Transfers to other government (row 4)	7
5. Transfers to the rest of the world (row 6)	2
6. Saving (the balancing item) (row 9)	65
Total government current expenditure plus saving	349

Again the inter-government transfer, 7 in row 4, column 4 could be entered as zero in an aggregated matrix. As figure shown in the table however it represents mainly grants from central government to local authorities.

Production (row and column 5)

Many countries including Kenya have prepared input/output tables often with a relatively large number of sectors. Similar classifications can be used for the SAM although in practice individual sectors of the input/output system have been aggregated for the SAM. Ideally production activities should be divided according to analytical needs and as far as possible in such a way that each activity has a reasonably homogeneous input structure with a single characteristic product. It is particularly important that industries which are economically very important and have a number of different products should not be grouped together. For example, agriculture is a vital industry for most developing countries with a number of different types of output all of which are important and any of which may have to be considered separately in any analysis. It is desirable therefore in these circumstances that agriculture should be divided into a number of sub-sectors so that each important commodity is the characteristic product of one sub-sector.

There are certain advantages in separating production activities and commodities in the SAM but this is not the practice adopted for the Kenya SAM. The implications are contained in the Annex to this paper.

The published 1971 input/output table for Kenya which had been updated by the RAS method to 1976 contained 30 production activity sectors and unpublished data relating to 69 sectors is available. For the purposes of the SAM it was decided to aggregate certain sectors and it was hoped that disaggregation would be possible for the agricultural sector and producers of government services. The latter proved possible the former not. Twenty-eight production activities were therefore included in the SAM.

1. Traditional economy (i.e. firewood, water, building and maintenance of huts).
2. Agriculture.
3. Forestry and fishing.
4. Mining and quarrying.
5. Manufacturing – food and beverages.
6. – textile, wearing apparel and leather.
7. – wood and wood products.
8. – paper, paper products, printing and publishing.
9. – petroleum refineries.
10. – other chemical industries.
11. – non-metallic mineral products.
12. – metal products, machinery, misc.
13. – manufacture of transport equipment.
14. Electricity.
15. Water.
16. Building and construction.
17. Wholesale and retail trades.
18. Hotels and restaurants.
19. Transport and services allied to transport.
20. Communications.
21. Finance, real estate, insurance and business services.
22. Ownership of dwellings.
23. Other services including domestic service.
24. Producers of government services – public administrative and defence.
25. – education.
26. – health.
27. – agricultural services.
28. – other services.

In the example of Table 1 the entries in row and column 5 therefore represent the incomings and outgoings of production activities.

It should be noted that the entry at row 5, column 5 is the input/output matrix (domestic element) and that this pair of rows and columns contains all the information of input/output tables and supply and disposition tables. Some important aggregates immediately available from this row and column are:

Table 6

Production Activities Accounts

Incomings or revenue from sale of output (row 5)	**£K million**
1. From sale of goods and services to households (column 2)	790
2. From services produced for own use by government (column 4)	254
3. From sale of goods and services to other production activities (i.e. as intermediate consumption) (column 5)	911
4. From exports of goods and services (column 6)	478
5. From sale of goods for capital formation by households, i.e. for unincorporated enterprises (column 7)	96
6. From sale of goods for capital formation by enterprises (column 8)	114
7. From sale of goods for capital formation by government (column 9)	80
Total income of production activities or value of commodities produced	2723
Outgoings or costs of production (column 5)	
1. Factor payments, labour costs and profits or operating surplus (row 1)	1267
2. Indirect taxes (row 4)	155
3. Intermediate consumption or purchases from other producers (row 5)	911
4. Imports of intermediate consumption goods and services (row 6)	390
Total costs of production	2723

(i) final consumption of government 254 (row 5, column 4).
(ii) domestic output of capital goods 290 (row 5, columns 7–9).
(iii) value of exports (fob) 478 (row 5, column 6).
(iv) total intermediate consumption 1301 (rows 5 and 6, column 5).
(v) value added 1267 (row 1, column 5).

Final consumption by households is made up of the sum of consumption of domestic production 790 (row 5, column 2) and of imports 91 (row 6, column 2).

Without further disaggregation it is not possible to determine GNP or GDP at market prices since a part of the payments made by households to government (row 4, column 2) includes the import duties on direct imports. For example, GDP at market prices equals value added 1267 (row 1, column 5) plus indirect taxes less subsidies paid by producers, 155 (row 4, column 5) plus a part of payments made to government by households (row 4, column 2).

Rest of the World (row and column 6)
For the rest of the world accounts entries in row 6 relate to payments made to the rest of the world, i.e. their incomings; conversely entries in column 6 relate to receipts from the rest of the world, i.e. their outgoings.

Table 7
Rest of the World Accounts

Incomings or payments received by the rest of the world (row 6)	£K million
1. Factor payments made to rest of the world (column 1)	70
2. Purchase of goods and services abroad by households plus household remittances and other transfers abroad (column 2)	91
3. Payment of interest and dividends, etc. by enterprises to the rest of the world (column 3)	7
4. Payment of interest, etc. by government to the rest of the world (column 4)	2
5. Payment for imports by production activities (column 5)	390
Total payments made to rest of world	562
Outgoings or payments received from the rest of the world (column 6)	
1. Factor payments received from rest of the world (row 1)	17
2. Transfers received by households of interest, dividends, remittances, etc. (row 2)	5
3. Transfers received by enterprises of interest and dividends, etc. (row 3)	8
4. Transfers received by government of interest, dividends and current aid grants (row 4)	10
5. Payment for exports of goods and services (row 5)	478
6. Savings or deficit on the balance of payments (the balancing item) (row 10)	44
Total receipts from rest of the world and balance of payments	562

Institutions – Capital (rows and columns 7–9)
The capital accounts of the three main classes of institutions are set out in rows and columns 7 to 9 of Table 1. These may be sub-divided in the same way as they were for the current accounts but in practice less detail is available or needed for the capital accounts and there is therefore likely to be a higher level of aggregation.

For the Kenya SAM all households were aggregated to a single account for the capital part of the matrix. Although there might be some interest in the different patterns of assets and liabilities held by the various classes of households it is of little importance and the necessary data is not available. Because of their greater importance in capital transactions financial enterprises were separated from non-financial enterprises and then further sub-divided into central bank, commercial banks, insurance companies, other private (financial) companies and other public (financial) companies. The non-financial companies were not sub-divided at all, i.e. both private and public were aggregated. Similarly all government institutions whether local or central were aggregated to one account for the capital accounts.

For each institution the incomings on the capital account will be savings plus borrowing plus the receipt of capital grants, gifts or other transfers. In practice capital transfers do not arise except for capital aid grants from the rest of the world to governments and in some countries governments grants to enterprises for capital purposes. The outgoings on the capital account for each institution will be in respect of fixed capital formation plus lending plus the payment of capital grants, gifts or other transfers, if any.

For each account fixed capital formation plus increase in financial assets plus payment of capital transfers is identically equal to savings plus increase in financial liabilities plus receipt of capital transfers.

In Table 1 households capital account in column 7 shows fixed capital formation (by unincorporated enterprises) of 96 (row 5) plus increase in financial assets of 17 (row 11) financed (row 7) by savings of 77 (column 2) and borrowing or an increase in financial liabilities of 36 (column 11).

Enterprises capital account in column 8 shows fixed capital formation of 114 (row 5) plus an increase of financial assets of 193 (row 11) financed (row 8) by savings of 104 (column 3) and borrowing of 203 (column 11).

Government capital accounts in column 9 show fixed capital formation of 80 (row 5) plus an increase in financial assets of 47 (row 11) financed (row 9) by savings of 65 (column 4) plus capital aid from the rest of the world of 9 (column 10) and borrowing of 53 (column 11).

Rest of the World – Capital (row and column 10)
The rest of the world capital accounts record that the deficit on the current balance of payments account must be financed by capital grants from abroad plus net borrowing from abroad. In the opposite circumstances of a current surplus then that would be used for capital grants paid abroad or for net lending abroad.

In Table 1 the deficit on current accounts of 44 (row 10, column 6) plus increased lending to the rest of the world of 30 (row 10, column 11) equals capital grants received from the rest of the world of 9 (row 9, column 10) plus increased borrowing from the rest of the world of 65 (row 11, column 10).

It should be noted that the increase in net borrowing from the rest of the world is 65 minus 30 equals 35 which together with aid receipts of 9 equals the balance of payments deficient of 44.

Financial claims (row and column 11)
One of the most interesting parts of the SAM is the flow of funds but it is also one of the more difficult parts to complete since for most countries the data necessary is not available. The increase in financial assets held by institutions and the rest of the world are entered in the rows. These represent additional lending by institutions during the period covered by the accounts. The increase in liabilities covered by institutions and the rest of the world are entered in the columns. These represent additional borrowing by institutions during the period of the accounts.

The financial claims will be disaggregated by type of claim and again the degree of disaggregation will depend on the need for analytical purposes and the availability of data. Normally sub-classification will be based on the maturity of the claim and the status of the partners or one of the partners in the claim. As examples, the sub-classification might include currency, deposits, loans by term, bills and bonds by term, trade credit and other advances, corporate equity and equity in life insurance and pension funds.

Little work has been done in Kenya on the flow of funds and although much of the data, particularly where government was a party to the transaction, was available there were many gaps for which estimates were somewhat arbitrarily derived. The choice of categories of assets and liabilities was therefore determined to a great extent by the data available. These classes were domestic currency; deposits, further sub-divided into those at the Central Bank, commercial banks, and other financial institutions; loans and advances again further sub-divided into by government, banks, and other financial institutions; bills, sub-divided into treasury bills and tax reserve certificates, and other bills including trade credit; Government securities; household equity in life funds; other domestic assets; and finally foreign assets sub-divided into short-term, direct investment and other securities, medium and long term borrowing.

Table 8

Changes in Financial Claims

Incomings or the increase in holdings of assets (row 11)	£K million
1. By households (column 7)	17
2. By enterprises (column 8)	193
3. By government (column 9)	47
4. By the rest of the world (column 10)	65
Total increase in assets	322
Outgoings or the increase in liabilities (column 11)	
1. Of households (row 7)	36
2. Of enterprises (row 8)	203
3. Of government (row 9)	53
4. Of the rest of the world (row 10)	30
Total increase in liabilities	322

Why prepare a SAM?

The main purpose of this paper is to explain in some detail the Social Accounting Matrix. This has been set out above. It is necessary however to consider, if only fairly briefly, what are the purposes of a form of data presentation which on first acquaintance appears to require such a considerable volume of data.

It could be argued that no more information is required for a SAM than for a full set of national accounts set out in tabular form. Secondly, it should be noted that the presentation is more concise since each transaction is only entered once rather than twice in the double entry system. Although strictly true the argument is however misleading. The SAM is fully articulated whereas few, if any, of the normal double entry table systems are complete. In practice, therefore, most countries will require additional information if they are to prepare a SAM. Thirdly, the benefits of the SAM presentation are limited unless there is a much greater disaggregation of the household sector than in most sets of national accounts. In order to do this it is essential that a country has labour force and/or household socio-economic surveys which will provide data which can be cross-classified with production surveys.

The advantages of the SAM presentation fall into two groups:

a. those which will improve the quality of the country's statistical information system,
b. those which relate to the SAM as a tool for economic analysis.

In many countries much of the economic and financial data required for planning and other policy purposes is available but it will have been obtained from a number of sources and by a variety of methods. Much of this data will probably be to some extent inconsistent, since it is unlikely that all of it will be of equal quality and there will also be differences of timing, concepts and definitions. Much of this data will be needed for a SAM and the constraints of the matrix presentation in which each row and column must balance will reveal inconsistencies which might otherwise go unnoticed. Similarly the matrix presentation will immediately indicate where there are gaps in the data or where there are serious weaknesses in the estimates. One of the main advantages put forward for the SAM presentation is that the various accounts can be further disaggregated when required without altering the basic format. The matrix presentation will provide immediate guidance on the additional data required to effect such further disaggregation.

One important benefit of the SAM is, therefore, that it provides a very efficient evaluation of a great part of the available economic, financial and social statistics and, secondly, it can provide clear guidance for the future development of a country's statistical programme. Such benefits should not be under-valued since the improvement in quality of basic statistics must be high on the priorities of all national statistical organisations.

To turn to the direct benefits enjoyed by the user of statistics, the SAM provides a concise and consistent overall picture of the economy as a whole which makes the maximum use of all the data available. It is a snapshot of the economy in the period, usually one year, to which the data relates. Every entry in the matrix represents a transaction between different elements of the economy and they have been described in some detail above. A few examples of some of the more important, however, will serve to emphasise the value of SAM presentation. Referring again to Table 1 the entry in row 1, column 5 records total income generated by the domestic production activity. Disaggregation of the cell into a factor by production activities matrix will identify immediately the income generated by each activity and its distribution among the different factors. In particular the further disaggregation of labour will show how much income is received by each type of labour from each production activity.

The distribution of total domestically generated income plus any income received by domestic factors from abroad (row 1, column 6) to domestic and foreign institutions is set out in column 1. The entries in row 3 and 4 of column 1 are the original distribution of income to domestic institutions. Each of these and in particular households can be disaggregated in the way described above thus providing detail of the amount of each type of income accruing to each class of institutions.

Of particular importance is the re-distribution of income between institutions. The detail of the re-distribution is contained in rows and columns 2, 3 and 4. For example in Table 1 households (in a detailed matrix it would be a particular type of household) received 882 of the total income. Ignoring transfers within households, re-distribution added a further 157 (164-7) from enterprises which would be mainly in the form of interest and dividends but they paid over 86 (95–9) to government in the form of taxes, etc. After re-distribution, therefore, household income had increased to 953. There would, of course, be corresponding decreases for other institutions. The example ignores transfers with the rest of the world since although additions to income of 5 are immediately apparent, the entry of 91 as a payment is a sum of re-distribution effects and purchase of direct imports. A detailed matrix would show these sums separately and it would then be possible to compute total disposable income for each institution or sub-group of institutions.

If it is assumed that net transfers to the rest of the world are zero, then direct imports will be 86 of the 91 total payments to the rest of the world. Of the re-distributed income of 953 households spend 790 on the products of domestic producers (row 5, column 2) and 86 on imported goods and services (part of row 6, column 2). This leaves a balance of 77 which is household savings (row 7, column 2). Disaggregation will provide full detail of the consumption of a wide range of commodities by the different household groups.

These are only a few examples of the economic information which is immediately available from a SAM but they are clearly among the most important for those users who require a knowledge of the working of the economy and need to consider the possible effects of their policy options on the economy.

The use of the SAM to determine the effects of policy options on the economy requires something more than simply a collection of data; it requires that the data be used in a model of how it is believed the economy behaves in response to changes. The SAM is such a model made up of linear behavioural equations and a number of identities. It is a static model of a similar type to that familiar to input/output analysts. In broad terms the model assumes that the linear relationship between inputs and outputs will remain unaltered whatever changes are made to the economic system. e.g. in the form of increased demand for a particular commodity, etc. For some purposes the underlying model of the SAM will clearly not be considered appropriate. The data system is, however, consistent and fully articulated and it is therefore valid for use in a wide range of models other than the SAM itself.

Conclusion

The purpose of this article is to explain in some detail the Social Accounting Matrix and to consider briefly the advantages to be derived from constructing one. To summarise 'A SAM is the presentation of a fully articulated system of economic and financial statistics in an input/output matrix format. It is a logical process in the development of a consistent data system which can be easily expanded to meet analytical needs; it provides a concise overview of the economy as a whole; and it provides a linear static model of the economy and a data base which can be used for a wide range of alternative models'.

Many of the ideas expressed above are discussed in much more detail in *Social Accounting for Development Planning with Special Reference to Sri Lanka* by Graham Pyatt, Alan R Roe and associates[1] and a forthcoming volume entitled *The Distribution of Income and Social Accounts: a study of Malaysia 1970* by Graham Pyatt and Jeffrey Round. Those who wish to pursue the topic further are referred to these volumes.

[1] Published by Cambridge University Press (1977) ISBN 0521 215981 (Price £10.00 net)

Production activities and commodities

In the SAM prepared for Kenya and in a number of others only one set of accounts has been included for production activities. The SNA recommends that separate accounts should be produced for commodities and activities and there are some advantages in this procedure. If the classifications are such that there is a one-to-one correspondence between commodities and activities then such a separation is not strictly necessary as the accounts can be interpreted as activities or commodities whichever is appropriate.

Only in the very simplest economies is it strictly true to assume that there is a one-to-one correspondence unless the classifications are so broad that they are virtually meaningless in that the product is a composite of many commodities which may be produced from widely differing technologies and have very different utilisation patterns.

Ideally production activities should be divided according to analytical needs and as far as possible in such a way that each activity has a reasonably homogeneous input structure. Similarly, commodities should be sub-classified into single items or homogeneous groups of similar items. In such a system it is possible for a commodity to be produced by more than one activity and similarly one activity may produce more than one commodity.

These are familiar problems for the input/output analyst who is now used to the industry x commodity or make matrix and the commodity x industry or absorptive matrix from which a true input/output matrix can be computed according to various assumptions. The methodology for this is set out in Chapter III of the SNA.

There are advantages in the preparation and presentation of a SAM in separating commodities from production activities. In particular it enables commodity taxes to be separated from other indirect taxes and simplifies their presentation.

Secondly, data is often such that the total supply of each commodity is known by source together with its disposition. What is not usually known is the disposition for each source and it is therefore difficult to map from supply to consumption. This difficulty falls away when individual commodity accounts are included in the matrix.

The table below shows table 1 recalculated with commodities and production activities separated.

			Current						Capital		
			Factors	Households	Government	Production activities	Commodities	Rest of World	Domestic	Balance of other accounts	Total
			1	2	3	4	5	6	7	8	9
Current	Factors	1				1267		17			1284
	Households	2	882	17	9			5		164	1077
	Government	3	2	95	7	12	143	10		80	349
	Production activities	4					2580				2580
	Commodities	5		876	254	1301		478	290		3199
	Rest of World	6	72	5	2		476			7	562
Capital	Domestic	7		77	65					405	547
	Balance of other accounts	8	328	7	12			52	257	95	751
	Total	9	1284	1077	349	2580	3199	562	547	751	

The commodity and production activity accounts (rows and columns 4 and 5) contain the only changes from table 1. Column 4 sets out the cost structure of the various production activities, 1267 (row 1) being the payments to factors or primary inputs, 12 (row 3) the payment of indirect taxes, other than commodity taxes, and 1301 (col 5) being the purchase of commodities for intermediate consumption whether they are domestically produced or imported. The total 2580 is the total cost of production *excluding* any direct payments of commodity taxes paid by the producer. Row 4 is the output of production activities which is commodities and in the example is 2580 (col 5). [This is in effect at approximate basic prices as defined in the SNA].

Column 5 sets out the supply of commodities which consists of 2580 (row 4) locally produced and 476 (row 6) imported from the rest of the world (valued cif). Together with 143 (row 3) of commodity taxes these provide a total for all commodities of 3199 at market prices. Row 5 sets out the disposition of commodities to final consumption by households 876 (col 2), to final consumption by government of 254 (col 3) to intermediate consumption by production activities of 1301 (col 4), as exports of 478 (col 6) and to fixed capital formation of 290 (col 7).

Recently available statistical series and publications

The following publications containing social statistics have recently, or will soon become available during the April-June quarter of 1980. Unless otherwise specified, copies may be purchased from Her Majesty's Stationery Office. A list of release dates of economic series is published monthly in *Economic Trends*.

Department of Education and Science
Statistics of Education, Volume 3, 1977: Further education statistics, 1977.
Statistics of Education, Volume 6, 1977: University statistics, 1977.
Statistics of Education, Volume 1, 1978: Schools statistics, 1978.
Statistics of Education, Volume 2, 1978: School leavers and CSE/GCE examination statistics, 1978.
Statistics of Education, Volume 4, 1978: Teachers' statistics 1978.
Statistics of Education, Volume 5, 1978: Finance and Awards statistics, 1978.

Department of Employment
Employment Gazette, published towards the end of each month, contains indicators on earnings, unemployment and prices. Issues due in the second quarter will contain the Family Expenditure Survey results for the third and fourth quarters of 1979 and an article about the Impact of rising prices on different types of households.

Department of the Environment
Housing and Construction Statistics, Issue 32: figures for the fourth quarter 1979.
Local Housing Statistics, Issue 53: figures for the fourth quarter of 1979.

Home Office
Control of Immigration: Statistics UK 1979.
Report of the Police Complaints Board 1979.
Report of the Gaming Board for Great Britain 1979.
Report of the work of the Equal Opportunities Commission 1979.
Report of the Parole Board for 1979.
Report of the Commissioner of Police of the Metropolis for 1979.
Report of HM Chief Inspector of Constabulary for 1979.
Gambling Statistics, Great Britain 1968–78.

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

Weekly Return	WR	Weekly
Births and Deaths	VS	Monthly *(note change)*
Legal Abortions	AB	Monthly
Deaths from Accidents	DH4	Monthly
Infectious Diseases	MB2	Quarterly
International Migration	MN	Quarterly
Deaths by Cause	DH2	Quarterly
Adoptions	FM3	Annually *(note change)*
Electoral Statistics	EL	Annually
Population Estimates	PP1	Occasional
Census	CEN	Occasional

Annual Reference Volumes
Population projections: area 1977–1991 Series PP3 No 3

Scottish Office
Scottish Economic Bulletin No21
Scottish Housing Statistics No7

Welsh Office
Welsh Housing Statistics

Department of Health and Social Security
In addition to the above, the following analyses in the Department of Health and Social Security statistical series have recently become available. Extracts and summaries from these will eventually be published in *Social Security Statistics*.
Further information can be obtained from:
Mr. R. J. McWilliam,
Department of Health and Social Security,
Room A2216,
Newcastle Central Office,
Newcastle upon Tyne NE98 1YX

Unemployment benefit

Quarterly analysis of decisions of Insurance Officers, quarter ending 31 March 1980

Monthly analysis of claims by sex and region:

- 4 weeks ending 29.12.79
- 5 weeks ending 2.2.80
- 4 weeks ending 2.3.80

Quarterly analysis of registered unemployed by class, sex and region, quarter ended 7.2.80

Child benefit

Monthly analysis of families and children, 2 months ended 30.9.79

Sickness invalidity and injury benefits

Monthly analysis of weekly averages of new claims by region: G.B.:

- 4 weeks ended 29.1.80
- 4 weeks ended 26.2.80
- 4 weeks ended 25.3.80

New surveys assessed by the Survey Control Unit

December 1979 to February 1980

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

An introductory note was given in Statistical News 36.41

New Surveys assessed December 1979 to February 1980

Title	*Sponsor*	*Those approached*	*Approximate number approached*	*Location*	*Frequency*
Business surveys					
British Information Service (Canada) Research	COI	Exporters	48	GB	AH
1980 SOEC Survey of Retail Prices	DEM	Retailers	100	SE	AH
Survey of Discharges to Rivers Don and Rother	DOE	Manufacturers	42	EM	AH
Pilot Inquiry into Overseas Borrowing and Lending	DT	Businesses	12	GB	AH
Problems of Succession, Retirement and Inheritance	MAFF	Farmers	50	SW	AH
Survey of Sponsors of Opportunities on Special Programmes	MSC	Employers	600	GB	AH
Review of Employment and Training Act 1973 – Levy Exemptions	MSC	Employers	64	GB	AH
Research into Firms' Decision-Making about Training	MSC	Employers	900	GB	AH
Survey into the Hairdressing Industry	MSC	Hairdressing establishments	333	GB	AH
Distributive ITB Training Aids Survey	MSC	Distribution Companies	242	GB	AH
Attitudes of Managers To the Printing and Publishing ITB Equal Opportunities Project	MSC	Printing Companies	136	GB	AH
Air Transport and Travel ITB Tour Operators Survey	MSC	Travel Companies	110	SE	AH
Shipbuilding ITB Skill Training Survey	MSC	Shipbuilding	50	UK	AH
Labour Market Effects of Ford's (Bridgend) Engine Plant	MSCW	Engineering Companies	100	W	AH
Effectiveness of Codes of Practice	OFT	Businesses	1518	UK	AH
Domestic Laundry and Cleaning Services Code of Practice Monitoring Survey	OFT	Launderers/Dry-Cleaners	318	GB	AH
Footwear Code Monitoring Survey	OFT	Footwear Retailers	300	GB	AH
Employment of Electronics Engineers and Technicians	SEPD	Employers	70	S	AH
Property Development and Labour Market in Tyne and Wear	TRRL	Employers	50	N	AH
Agricultural Priority Areas in the Urban Fringe	WO	Farmers	210	W	AH
Local authority surveys					
Distribution of Grant Inquiry	DOE	Housing departments	285	E	AH
Other surveys					
Crime Prevention Campaign – Tracking Study	COI	Households	1800	EW	AH
'Make the Most of Energy' Slogan Research	COI/DEN	Adults	200	E	AH
Nursing Recruitment – Media Exposure Study	COI/DHSS	Students	800	GB	AH
'Young Engineer for Britain' Competition	COI/DI	Youths	1320	GB	AH
Seatbelt Campaign Evaluation	COI/DTP	Drivers	25000	GB	AH
Survey of Security Device Purchasers	COI/HOME	Households	200	EW	AH
Manpower Services Commission 'Roadshow Guide' Research	COI/MSC	Youths	200	GB	AH
Youth Opportunities Programme – Campaign Evaluation 1980	COI/MSC	Adults	2000	GB	AH
Youth Opportunities Programme – Alternative Leaflet Design	COI/MSC	Youths	40	E	AH
Youth Opportunities Programme – Radio and Cinema Test in Liverpool	COI/MSC	Unemployed	800	NW	AH
'Employment Gazette' Readership Survey	DEM	Readers	2800	GB	AH
Two-Stage Survey on Long-Term Unemployment	DEM	Unemployed	4500	GB	AH
'Choose Your Career' Series Questionnaire	DES	Teachers	500	E	AH
Mental and Physical Handicap in Childhood	DHSS	Parents	1000	GB	AH
Use of Static Bicycles in Hospitals	DHSS	Nurses	200	EW	AH
Attitudes and Needs of Elderly People with Poor Sight – Pilot	DHSS	Elderly	40	SE	AH

Other surveys *(continued)*

Title	*Sponsor*	*Those approached*	*Approximate number approached*	*Location*	*Frequency*
Study of Nursing Care at night	DHSS	Patients	120	SE	AH
Survey of Village Communities in the Selby District of North Yorkshire	DOE	Households	140	YH	AH
Survey on 'England's Northcountry' Television Campaign	ETB	Adults	2000	E	AH
Awareness and Usage Check of Tourist Information Centres	ETB	Adults	4000	GB	AH
Public Evaluation of Police Services	Home	Adults	350	YH	AH
Further Education Survey 1980	MSC	Youths	4000	GB	AH
Special Programmes Follow-up Survey	MSC	Youths	2000	GB	Q
Printing and Publishing ITB Equal Opportunities Project	MSC	Employees	280	GB	AH
Evaluation of City and Guilds Pilot Course for Instructor/Supervisor Award	MSC	Adults	300	GB	AH
Air Transport and Travel ITB Guides Survey	MSC	Tourguides	700	SE	AH
Furniture Code of Practice Monitoring Survey	OFT	Consumers	9500	GB	AH
School-Children's Survey	OPCS/DHSS	Children	3600	GB	AH
Adult Heights and Weights Survey	OPCS/DHSS	Adults	10000	GB	AH
Christmas Bonus Survey	OPCS/DHSS	Adults	2500	GB	AH
Survey of Community Nurses	OPCS/DHSS	Adults	4600	EW	AH
Bo'ness Kinneil IC Housing Scheme Insulation System Evaluation	SDD	Households	42	S	AH
Social Work Services to Adult Offenders	SED	Professionals	230	S	AH
Provision of Training Places for Sandwich Courses	SED	Head teachers	18	S	AH
Environmental Capacity of Residential Roads	TRRL	Adults	500	E	AH
Northgate Gyratory System (Chichester)	TRRL	Drivers	2700	SE	AH
Tyne and Wear Public Transport Impact Study – Central Area Study	TRRL	Shoppers	4000	N	AH

LIST OF ABBREVIATIONS

General

ITB Industry Training Board
SOEC Statistical Office of the European Communities

Frequencies

AH Ad Hoc (or single item)
Q Quarterly

Sponsors

COI *Central Office of Information*
DEM *Department of Employment*
DEN *Department of Energy*
DES *Department of Education and Science*
DHSS *Department of Health and Social Security*
DI *Department of Industry*
DOE *Department of the Environment*
DT *Department of Trade*
DTP *Department of Transport*
ETB *English Tourist Board*
HOME *Home Office*
MAFF *Ministry of Agriculture, Fisheries and Food*
MSC *Manpower Services Commission*
MSCW *Manpower Services Commission Office for Wales*
OFT *Office of Fair Trading*
OPCS *Office of Population Censuses and Surveys*
SDD *Scottish Development Department*
SED *Scottish Education Department*
SEPD *Scottish Economic Planning Department*
TRRL *Transport and Road Research Laboratory*
WO *Welsh Office*

Locations

E *England*
EM *East Midlands*
EW *England and Wales*
GB *Great Britain*
N *Northern England*
NW *North West England*
S *Scotland*
SE *South East England*
SW *South West England*
UK *United Kingdom*
W *Wales*
YH *Yorkshire and Humberside*

Notes on current developments

POPULATION AND VITAL STATISTICS

1981 Census

A draft Order-in-Council was laid before Parliament on 20 March. Under the terms of the Census Act 1920 Parliament's approval is required before the Queen can make the Order.

The draft Order provides for the taking of a census of population of Great Britain on Sunday 5 April 1981. This date avoids holidays and local elections; it is within British Summer Time; and it is within the range of dates agreed by the nine states of the European Community during discussions on the synchronisation of population censuses. The draft Order also specifies the persons who would have the legal obligation to complete the census forms and the persons to be included; it contains a list of particulars to be stated on the forms.

At the same time OPCS Monitor CEN 80/1 *Plans for the 1981 Census* was issued to explain the Government's plans to a wide readership. There are sections on the topics proposed for the census, the cost of the census, confidentiality and the way the census would be conducted, and the results to be produced.

The Government decided not to include a question in the Census on race or ethnic origin. OPCS Monitor CEN 80/2 *Tests of an ethnic question,* summarising the findings of field tests which concluded research by OPCS, was also issued on 20 March, to be followed by a final report giving the results in fuller detail.

A further OPCS Monitor CEN 80/3 *The Government's decision on an ethnic question in the 1981 Census,* giving the reasons why the Government decided not to proceed with their predecessors' proposal for a direct ethnic question and listing the organisations which submitted written views or were represented at consultative meetings, was issued on 2 April.

References

Plans for the 1981 Census OPCS Monitor CEN 80/1
Tests of an ethnic question OPCS Monitor CEN 80/2
The Government's decision on an ethnic question in the 1981 Census OPCS Monitor CEN 80/3
(all available free from: Information Branch (Dept.M), OPCS, St Catherines House, 10 Kingsway, London WC2B 6JP).

Population and vital statistics for Scotland

The Registrar General's annual report for 1978, the third quarterly return for 1979 and the annual population estimate for 30 June 1979 were published in April.

Provisional vital statistics for 1979 were first published in weekly return no 4/80, and fuller details will be published with the fourth quarterly return this summer.

Reference

The Registrar General's annual report for 1978 (HMSO 1980) (Price to be announced).

Population Trends

The latest edition of *Population Trends,* the journal of the Office of Population Censuses and Surveys was published in April. This latest issue contains the following articles:

The geography of the census: 1971 and 1981

The geography of the census in England and Wales is based on 110,000 small areas specially drawn for each census. This article by Chris Denham of OPCS Census Division describes how the geographical base of the census was first established and is now planned in conjunction with census users. It examines how continuity between censuses can be achieved. The article also discusses the availability of census results on geographical bases originating outside the census.

Congenital malformations of the central nervous system

Since 1972 notifications of children born with malformations of the central nervous system (CNS) have declined. This article analyses the decline and considers a number of possible reasons. The authors are Jonathan Bradshaw and Jane Weale of the Social Policy Research Unit at the University of York and Dr Josephine Weathherall of OPCS Medical Statistics Division.

Perinatal and infant deaths: social and biological factors

This article by Isabel MacDonald Davies of OPCS Medical Statistics Division summarises the main findings of a new study of the social and biological factors affecting perinatal and infant mortality in England and Wales in the years 1975–1977. The study linked records of over 98 per cent of the 25,639 infant deaths in the three years 1975–77 to their corresponding birth records. The author summarises the relationship of social class, area of residence, mother's country of birth, mother's age and parity, place of confinement and season of birth to mortality in the first year of life. The full report of the study will be published by HMSO in April 1980.

Comparing counties in England and Wales

In this article John Craig of OPCS Population Statistics

Division discusses population differences between the 53 post-reorganisation counties of England and Wales by considering how each county is made up of a number of different types of smaller units. Counties which have broadly similar small units throughout are used to construct a framework within which the other, more mixed, counties can then be placed. In this way similarities and differences are highlighted.

In addition to these articles, the issue contains up-to-date statistics on population, births, marriages, deaths, migration and abortions.

Reference
Population Trends 19 Spring 1980 (HMSO 1980) (Price £3.00 net).

Mortality statistics: cause 1978

The complete picture of causes of death in England and Wales in 1978 was published in February. The volume gives deaths and death rates analysed by sex and age-groups; deaths of children under one year of age are analysed separately.

In 1978 the total number of deaths in England and Wales (585,901) increased by 1.7 per cent from 575,928 in 1977; however the 1977 figure was particularly low following the major influenza epidemic in 1976.

Reference
Mortality statistics: cause 1978 Series DH2 no 5 (HMSO 1980) (Price £4.75 net).

Inter-regional migration since 1971

Published in March was *Inter-regional migration since 1971,* an appraisal of data from the National Health Service Central Register (NHSCR) and the Labour Force Surveys (LFS) by Audrey Ogilvy PhD of the Department of Environment's Building Research Establishment.

The most detailed and reliable source of data on migration within Great Britain is the national Census of Population. However, the Census provides a reference point for one year alone which does not, in itself, show the directions of current change. This study deals with two of the available sources of migration data: the NHSCR and the LFS and compares them to each other and to the Census to see whether they provide consistent information about inter-regional movement. The analysis shows a generally high degree of consistency in the results and, where there is inconsistency, identifies some factors responsible. Nevertheless, the report concludes, the migration data from these two sources must be used and interpreted with care. The results must be seen in context and each figure assessed in the light of overall trends.

Reference
Inter-regional migration since 1971. Audrey Ogilvy. OPCS Occasional Paper 16 (OPCS 1980) (Price 70p net).

Electoral Statistics 1979

Produced by the Office of Population Censuses and Surveys and published recently is a volume giving electoral statistics for 1979. The volume is divided into four sections:

The Parliamentary section contains tables showing, for 1979, numbers of Parliamentary electors, the size of Parliamentary constituencies, those with the largest and smallest number of electors and the largest in terms of physical size. It also details the votes cast at the general election on 3 May 1979. For the first time these figures relate to the United Kingdom and its constituent countries; previous reports in the series referred mainly to England and Wales.

The tables on local government relate to England and Wales only and give local government electors on the 1978 and 1979 registers for areas where there was an election in 1979, together with an analysis of the elections, and for areas where no election was held.

The last two sections show the votes cast at the European Assembly election on 7 June 1979 and the votes cast at the referenda on devolution for Wales and Scotland on 1 March 1979.

An OPCS Monitor (EL 80/1) is also available giving the numbers of electors on the 1980 Register of Electors for each county and for each county district in England and Wales; figures for the regions and districts in Scotland are also given. Figures for parliamentary constituencies within the United Kingdom will be published shortly in OPCS Monitor EL 80/2.

References
Electoral statistics 1979 (HMSO 1980) (Price £3.00 net).
Electoral statistics OPCS Monitor EL 80†1 Available free from OPCS *see page 49.20).*

Population estimates

The latest annual report on population estimates for England and Wales, produced by the Office of Population Censuses and Surveys, was published in April. It gives mid-1977 and mid-1978 estimates by age, sex and marital condition for England and Wales and by age and sex for the regions, counties, metropolitan districts and London boroughs. Estimates by sex for non-metropolitan districts are also given. This report was followed by an OPCS Monitor giving the revised mid-1979 population estimates for the country by age and sex. Further Monitors in this series, giving mid-1979 population estimates by sex for local authorities and health areas respectively, are to be published shortly.

References
Population estimates 1977 and 1978 Series PP1 no 3 (HMSO 1980) (Price £3.00 net)
Mid-1979 revised population estimates OPCS Monitor PP1 80/1 (Available free from OPCS see page 49.20).
Mid-1979 population estimates for local authority areas OPCS Monitor PP1 80/2 (forthcoming)
Mid-1979 population estimates for health areas OPCS Monitor PP1 80/3 (forthcoming)

Population estimates methodology

OPCS have recently published an Occasional Paper entitled *Local authority population estimates methodology* which is number 18 in the Occasional Paper series. The paper explains the method used by OPCS in 1978 in making the new series of local authority population estimates and gives an example of the estimating procedure for a local authority.

A further Occasional Paper entitled, *The background to the local authority population estimates,* number 19, will be published shortly. The paper outlines the principles of the methodology used and comments on the degree of accuracy required. The paper comments on the various data sources that might be used to make the OPCS estimates and explains why at present the demographic flow (or component) method is the appropriate method for OPCS to use. Some ways in which, at much greater cost, more accurate results could be obtained are briefly discussed.

References

Local authority population estimates methodology OPCS Occasional Paper 18 (OPCS 1980) (Price 75p net).

The background to the local authority population estimates OPCS Occasional Paper 19 (OPCS 1980) (Forthcoming).

SOCIAL STATISTICS

Regional Statistics

The 1980 edition of *Regional Statistics* was published in February. It brings together a detailed, quantitative picture of regional variations across a broad range of topics – social, economic and demographic. This publication is an important reference manual for regional planners, marketing managers, academics and the many others who have regional interests.

This edition contains territorial analyses of public expenditure by HM Treasury, showing identifiable public expenditure in England, Wales, Scotland and Northern Ireland by broad function. A new analysis by the Central Statistical Office of local authority current income and expenditure is also shown for the regions of Great Britain.

The housing section has been expanded to include information on the environment. Details are given of derelict and despoiled land, and of atmospheric and freshwater pollution by region.

Regional projections of the civilian labour force are shown. There are also new tables indicating the different personal investment media preferences in the regions, and analysing mortgage advances by region.

There are sixteen sections in total, covering a range of topics including population, social services, employment, housing, production and personal incomes.

Regional Profiles bring together information on the main economic characteristics of each region. Commentary draws attention to the more important characteristics in each case. A range of statistics are presented for each county and more limited data for selected districts in urban areas.

The following amendment should be made in this edition: In the headings for tables 15.11 and 15.12 and the accompanying diagrams the terms 'Wales' and 'Scotland' have inadvertently been transposed.

Reference

Regional Statistics 15 1980 Edition (HMSO) February 1980 (Price £11.75 net).

Fire statistics

Fire Statistics, United Kingdom, 1978 was published by the Home Office in March. As in previous years, the publication contains tables on many aspects of fires attended by local authority fire brigades and the casualties which resulted from these fires. Factors by which fires are tabulated include location, source of ignition, material first ignited and degree of spread. The commentary contains discussion of changes over the last 10 years and includes tables summarising the statistics for this period. The introduction of a new reporting system at the beginning of 1978 has enabled some additional information to be included, notably on the location of casualties relative to the fire and the circumstances resulting in injury, the estimated time interval between a fire starting and being discovered and statistics on fires involving dangerous substances or explosions. The tables include extensive estimates for fires which were not reported in detail because of the fire service strike, which seriously disrupted reporting of fires during the first part of the year.

A *Supplement for Fire Brigades* is also available. This contains additional tables by brigade and country and includes such statistics as casualties per million population in each brigade area.

References

Fire Statistics, United Kingdom, 1978 (Price £4.25 net), and *Fire Statistics, United Kingdom, 1978, Supplement for Fire Brigades* (Price £1.00 net). obtainable from:

Room 843
S3 Division
Home Office
50 Queen Anne's Gate
LONDON SW1H 9AT

Liquor licensing statistics

Liquor Licensing Statistics for England and Wales, 1979 was published by the Home Office in March. As in previous years, this publication contains tables on numbers of premises licensed for the retail sale of intoxicating liquor, registered clubs and theatres at 30 June 1978, and historical tables concerning the years 1968–78.

In addition it gives the numbers of new licences and registrations applied for and granted, and clubs removed from the register or refused registration.

Reference
Liquor Licensing Statistics for England and Wales, 1979 (Home Office 1980) (Price £5.50 net)

Scottish Housing Statistics

The seventh issue of *Scottish Housing Statistics,* which relates to Quarter 3 1979, has been published by HMSO. As well as the regular tables on house building, improvement work, finance, and rents it contains more detailed information on improvements by local authority area and shows provision of special needs housing, updating tables published in *Scottish Housing Statistics* No 2. The article describes the results of household projections carried out by the Scottish Development Department. Numbers of households for the years 1978, 1981, 1986 and 1991 are given by type of household for Scotland and the local Government Regions, plus a summary for Island Areas and Districts. This issue also includes a short commentary on the Tender price and building cost indices which are presented for the first time and which will be published regularly thereafter.

Reference
Scottish Housing Statistics, 7th issue (HMSO 1980) (Price £2.00 net)

Older workers and retirement

A report published by HMSO in April is of a survey carried out by the Social Survey Division of the Office of Population Censuses and Surveys in 1977, on behalf of the Departments of Employment and of Health and Social Security. Nearly 3,500 people, workers and retired, men aged 55–72 and women 50–72, were interviewed in England, Scotland and Wales. The main aim of the survey was to find out what influences people to retire before, at or after state pension age or what makes them go on working. It was also concerned with a number of related issues such as the state pension ages for men and women, the earnings rule applicable to those pensions, the problems that people have in preparing for and adjusting to retirement, and what employment opportunities there are for people approaching and above pension age. The survey found that most people who retire are reasonably content to do so, although a sizeable minority have money problems. Many men who retire early do so for health reasons and are not happy about it. Few people have any formal preparation for retirement, but more would like information, advice or help about it. Money is the reason most frequently given for working after pension age, but there are also other reasons such as avoiding boredom and liking the work. A substantial minority of older people would like to have local part-time work, and there is considerable public support for the principle of gradual retirement by cutting down hours or days of work rather than going from full-time work to none at all. On the social security side most people favour a common pension age for men and women. There is much ignorance about the operation of the earnings rule, although it seems to have had little effect on economic behaviour.

Reference
Older workers and retirement (HMSO 1980) (Price £7.00 net)

Empty housing in England

The report of the 1977 Vacant Property Survey carried out by the Office of Population Censuses and Surveys for the Department of the Environment will be published in July 1980.

The survey was based on a national sample of vacant housing identified from addresses visited for the large-scale Labour Force Survey (LFS) in the spring of 1977. Addresses shown by LFS to be vacant or possibly vacant were revisited by interviewers later in 1977 and details collected about them. The survey included both public and private sector housing.

The report explains the difficulties associated with defining and identifying vacant properties and compares the survey's estimate of the number of vacant dwellings with estimates from other sources, notably the 1971 Census and the 1977 National Dwelling and Housing Survey. It goes on to compare vacant properties with occupied housing in terms of age and type, possession of basic amenities, number of rooms and rateable value. It shows who owned the properties, what tenure they were immediately before becoming vacant and how long they had been vacant. The final chapters analyse reasons for vacancies, describe changes of tenure during vacancy and consider in detail the circumstances and fate of properties which had formerly been privately rented.

Reference
Empty housing in England (SS1109) (HMSO 1980) (price to be announced)

General Household Survey 1978

The latest edition of the *General Household Survey* is published this month. This edition features a chapter on housing satisfaction, which was a new topic on the survey in 1978. New data on drinking behaviour are included in the chapter on smoking, drinking, and health, which also gives an account of changes in patterns of smoking that have emerged over recent years, and relates both smoking and drinking to health.

In addition, the report contains tables showing some of the changes that have taken place in Great Britain between 1971 and 1978 in patterns of household composition, employment, and housing. The report also updates earlier editions by presenting 1978 data on all the topic areas (including family size and education) which are regular features of the survey.

The GHS is a continuous survey based on a voluntary random sample of some 15,000 private households throughout Great Britain. It is carried out by the Social Survey Division of the Office of Population Censuses and Surveys and is sponsored by the Central Statistical Office. The sample used since 1975 involves a two-stage stratified rotating design, described in Chapter 1 of the 1975 Report. A detailed account of the survey's origins, aims, and methods was given in the Introductory Report.

Eight annual volumes have been published to date. In addition to the tables included in the reports, tabulations for the years 1971 to 1978 are held by Social Survey Division and are available on request, subject to resources and reliability, provided that (a) the confidentiality of informants is preserved, (b) any work based on analysis of GHS data is the responsibility of the researcher only, and (c) any report or paper using additional data, whether prepared for publication or for a lecture, conference or seminar, is first submitted to OPCS for clearance. Copies of data tapes can be made available for specific research projects, subject to certain conditions: copies of the tapes are also now being deposited with the SSRC Survey Archive at the University of Essex. Copies of blank questionnaires can be obtained by writing to Social Survey Division.

Enquiries to:

Mrs Mary Durant
Principal Social Survey Officer
Room 404
Office of Population Censuses and Surveys
St Catherines House
10 Kingsway
London WC2B 6JP

References

The General Household Survey: Introductory Report (HMSO 1973) (Price £1.80 net)
The General Household Survey 1972 (HMSO 1975) (Price £5.00 net)
The General Household Survey 1973 (HMSO 1976) (Price £4.00 net)
The General Household Survey 1974 (HMSO 1977) (Price £7.00 net)
The General Household Survey 1975 (HMSO 1978) (Price £7.50 net)
The General Household Survey 1976 (HMSO 1978 (Price £10.00 net)
The General Household Survey 1977 (HMSO 1979) (Price £7.25 net)
The General Household Survey 1978 (HMSO 1980) (Price £7.00 net)

HEALTH AND SOCIAL SERVICES

Cancer statistics: survival

Statistics of survival up to 1978 of diagnosed cancer registered in England and Wales in 1971–73, with additional data for some previous years were published in March. The report describes in more detail than hitherto some historical and more recent survival tables compiled by the Office of Population Censuses and Surveys using data collected from the National Cancer Registration Scheme. When more recent data becomes available to OPCS further survival reports in this series will be published.

In 1970 the Advisory Committee on Cancer Registration recommended a change in the method of survival follow-up by OPCS. This change was adopted for cancer registrations made after 1970 and tables in this report represent both methods.

Reference

Cancer statistics: survival, 1971–73 registrations Series MB1 no3 (HMSO 1980) (Price £3.00 net)

Statistics of infectious diseases in 1978

A report containing information on the notification of deaths from infectious diseases analysed by sex and age for 1978 for England and Wales, regions counties and districts has been produced by the Office of Population Censuses and Surveys and was published in March. The volume also contains data supplied by the Communicable Disease Surveillance Centre and the Meteorological Office.

Reference

Statistics of infectious diseases 1978 Series MB2 no 5 (HMSO 1980) (Price £4.00 net)

MANPOWER AND EARNINGS

Survey of the earnings of manual workers in certain industries

In previous years the Department of Employment has conducted a survey of the earnings in April of manual workers in certain industries (MLHs 213, 261, 272, 362, 383, 395, 415, 429, 431, 893 and 895). As part of the Department's contribution to reducing public expenditure it was decided to carry out the April 1980 survey only in the aerospace industry (MLH 383). However, all the industries will continue to be covered by the corresponding survey in October, and for several of them results in respect of April will be available from the 1980 New Earnings Survey.

Manpower planning

Recent issues of *Employment Gazette* have included further articles on manpower planning and related subjects. The December 1979 issue contained 'Moving around in the room at the top', the first in a series of intended articles on the results of a national survey of the early careers of graduates. In January 1980 two articles appeared, one looking at the career attitudes of final year undergraduates in a survey conducted by Market and Opinion Research International (MORI) in March 1979, and the other looking at some detailed results of the quarterly survey of skill shortages. The February

1980 issue contained several articles: the Micro-Electronics Study Group looked at how real the threat is of technological unemployment; Neil Scott of the Careers Advisory Service, University of Nottingham summarised the main conclusions of the 1980 graduate supply and demand forecasts made by AGCAS, CSU and SCOEG*; and finally an article appeared looking at manpower in local authorities.

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* AGCAS – Association of Graduate Careers Advisory Services
CSU – Central Services Unit for Careers and Appointments Services
SCOEG – Standing Conference of Employers of Graduates

Reference
Employment Gazette December 1979, January and February 1980 issues (HMSO) (Price £1.35 net December and January, £1.65 net February)

Monthly and quarterly series of employees in employment
The census of employment provides the accurate 'benchmark' figures with which the Department of Employment re-aligns the up-to-date industrial and regional employment estimates obtained from the monthly and quarterly sample enquiries. The June 1977 census results, now available (see this page) have, replaced the earlier estimates for that date in the monthly and quarterly series and revisions have been made to the estimates for other dates subsequent to June 1976. An article giving the detailed revised figures was published in the April issue of the Department of Employment's *Gazette*.

When publishing the quarterly estimates of regional employment, results for the South East and East Anglia have previously been combined. Analyses have shown however that the separate estimates for each of the two regions are of acceptable reliability. As a result, separate figures were published in the April *Gazette* article and will continue to be published when future results are given.

Reference
Employment Gazette, April 1980 (HMSO) (Price £1.65 net)

Census of Employment
The results of the June 1977 census of employment for Great Britain as a whole were published in the *Employment Gazette* for February 1980. For the standard regions and the United Kingdom detailed analyses were published in the March issue.

Compilation of the June 1978 census is proceeding and it is hoped that the results for Great Britain will be published by the end of 1980. The next census has been scheduled for June 1981.

Serious delays in the census results have built up since 1976 through attempting to computerise the operation too rapidly. To conduct a census in 1980 in addition to producing results for 1978 would have required excessive staff resources and would not have produced results much sooner than the time now planned for those for 1981. The absence of a census for 1980, together with the cancellation last year of that for 1979, will lead to substantial savings in costs for both Government and employers.

Reference
Employment Gazette, February and March 1980 (HMSO) (Price £1.65 net each)

AGRICULTURE AND FOOD

Agricultural censuses and surveys
The Hardy Nursery Stock Survey
The results of this survey for England and Wales were published in Statistical Information Notice STATS 55/80 on 18 February 1980.

The December 1978 Glasshouse Census
The County/Regional results (PSM) for England and Wales were published in February 1980.

The June 1979 Agricultural Census
The Final Results of this Census for England were published in Statistical Information Notice STATS 60/80 on 22 February 1980.

The Final Results for the United Kingdom were published in Statistical Information Notice STATS 84/80 on 19 March 1980. The County/Regional results (PSM) of the census for England and Wales were published in March 1980.

The October 1979 Vegetables and Flowers Census
Results of the October 1979 census in England and Wales were published in Statistical Information Notice STATS 65/80 on 27 February 1980. The County/Regional results (PSM) for England and Wales were published in March 1980.

The December 1979 Agricultural Census
The main results of this census for England were published in Press Notice 111 on 13 March 1980. The United Kingdom results will be published shortly.

Farm Classification in England and Wales 1976–1977
This recently published volume, the twelfth in the series, contains distributions of agricultural holdings, crop

areas, livestock numbers etc. by farming type and by size of business for England and Wales in the years 1976 and 1977.

Reference
Farm Classification in England and Wales 1976-77 HMSO 1980) (Price £6.75 net).

Notes
The press notices mentioned above may be obtained from:

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

Provisional Results of the December 1979 Scottish Agricultural Census
The provisional results of the Scottish Agricultural Census held in December 1979 were published as a Scottish Office Press Notice on 28 January 1980 (Press Notice 76/80).

INDUSTRIAL STATISTICS

A slimmer statistical service
All statistics collected and compiled by the statistical service of the Departments of Industry and Trade are being reviewed with a view to cutting public expenditure and reducing further the form-filling burden, especially on small firms. In some cases information now collected monthly will in future be collected quarterly, some surveys will be slimmed down and others stopped altogether. Already the proposed shops inquiry for 1981 has been abandoned. The small quarterly export prospects survey and the annual inquiry into film distributors have been stopped. The short period inquiry into manufacturers' stocks, which was partly monthly and quarterly, has now been put onto a quarterly basis. Possibilities of making further savings are being investigated urgently and other statistical surveys are likely to be reduced in scope or dropped.

A major saving in resources will come from restructuring the system of quarterly inquiries into manufacturers' sales conducted by the Business Statistics Office. The proposal is to reduce the number of firms covered in the inquiries. By varying the exemption levels for the different manufacturing industries, the accuracy and usefulness of the statistics will be protected as far as possible. However, a reduction in the number of firms covered will inevitably lead to some loss of quality and product detail in published statistics.

The Department of Industry is aiming to introduce the new style inquiries from the first quarter of 1981, and it is important that industry as well as the government should get the best value out of them. With this in mind the Department is discussing with a wide range of trade associations the detailed implications for their industries. Those who have not been approached, but who are concerned about how the changes will affect them, are invited to write to the Department of Industry at:

Economics and Statistics Division 3b,
Nineteenth Floor,
Millbank Tower,
Millbank
London SW1P 4QU

Business Monitors – Annual Census of Production, 1977
Readers of *Statistical News* are made aware of the results of the 1977 Census of Production as the Business Monitors become available. The following table lists the monitors published since that which appeared in the last number of *Statistical News*.

Business Monitor Number PA Series	*Description*	*Standard Industrial Classification Minimum List Heading*
104	Petroleum and natural gas	104
109	Miscellaneous mining and quarrying	109/1/2/3 and 4
219	Animal and poultry foods	219
221	Vegetable and animal oils and fats	221
239.1	Spirit distilling and compounding	239/1
261	Coke ovens and manufactured fuel	261
263	Lubricating oils and greases	263
271.1	Inorganic chemicals	271/1
271.2	Organic chemicals	271/2
271.3	Miscellaneous chemicals	271/3
275	Soap and detergents	275
276	Synthetic resins and plastics materials and synthetic rubber	276
278	Fertilizers	278
279.7	Photographic chemical materials	279/7
312	Steel tubes	312
313	Iron castings, etc	313
321	Aluminium and aluminium alloys	321
322	Copper, brass and other copper alloys	322
333.1	Pumps	333/1
333.2	Valves	333/2
333.3	Compressors and fluid power equipment	333/3 and 4
335	Textile machinery and accessories	335
339.2	Printing, bookbinding and paper goods machinery	339/2
339.3	Refrigerating machinery, space-heating, ventilating and air-conditioning equipment	339/3 and 4
339.5	Scales and weighing machinery and portable power tools	339/5 and 6
339.9	Miscellaneous (non-electrical) machinery	339/9
341	Industrial (including process) plant and steelwork	341
349.2	Precision chains and other mechanical engineering	349/2 and 3
352	Watches and clocks	352
354	Scientific and industrial instruments and systems	354
361	Electrical machinery	361
362	Insulated wires and cables	362
365.1	Gramophone records and tape recordings	365/1
366	Electronic computers	366

369.1	Electrical equipment for motor vehicles, cycles and aircraft	369/1
369.2	Primary and secondary batteries	369/2 and 3
370	Shipbuilding and marine engineering	370
380	Wheeled tractor manufacturing	380
382	Motor cycle, tricycle and pedal cycle manufacturing	382
383	Aerospace equipment manufacturing and repairing	383
390	Engineers' small tools and gauges	390
392	Cutlery, spoons, forks and plated tableware, etc	392
394	Wire and wire manufacturers	394
395	Cans and metal boxes	395
396	Jewellery and precious metals	396
399.1	Metal furniture	399/1
399.8	Miscellaneous metal manufacture	399/2/3/4 and 399/8/9/10/11 and 12
413	Weaving of cotton, linen and man-made fibres	413
414	Woollen and worsted	414
417.1	Hosiery and other knitted goods	417/1
417.2	Warp knitting	417/2
418	Lace	418
419	Carpets	419
422.1	Household textiles and handkerchiefs	422/1
422.2	Canvas goods and sacks and other made-up textiles	422/2
423	Textile finishing	423
429.1	Asbestos	429/1
441	Weatherproof outerwear	441
443	Women's and girls' tailored outerwear	443
444	Overalls and men's shirts, underwear, etc.	444
445	Dresses, lingerie, infants' wear, etc.	445
446	Hats, caps and millinery	446
449.1	Corsets and miscellaneous dress industries	449/1/3 and 4
450	Footwear	450
462	Pottery	462
469.1	Abrasives	469/1
473	Bedding, etc	473
474	Shop and office fitting	474
475	Wooden containers and baskets	475
485	Printing, publishing of newspapers and periodicals	485/486
494.1	Toys, games and children's carriages	494/1 and 2
496	Plastics Products	496
601	Gas	601
602	Electricity	602
603	Water supply	603

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

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

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

Construction industry statistics collected by the Ministry of Works 1941–56

The two-volume set described in the previous edition of *Statistical News* (page 48.31) has now been published and is available from the Department of the Environment price £50 net ($113-50).

Housing and construction statistics: new publications

New publications are to be introduced shortly to replace the existing *Housing and Construction Statistics,* the last edition of which will be No 32, 4th quarter 1979 published in May.

Two new publications will be introduced; a quarterly publication designed to get the latest figures to customers quickly and an annual reference volume which will contain, for a wide range of tables, time series for the last year and the ten years preceding it.

The quarterly publication

In the interests of timeliness the quarterly publication will be produced in two parts. Part I will contain data series for which the latest figures are normally available within seven weeks of the quarter end: these will include building materials and components, housebuilding performance, dwelling starts and completions, housing finance and rent registrations. Part 2 will go to press four to five weeks after Part 1 and include costs and prices, construction output and new orders, employment, slum clearance, local authority housing and renovations.

Most of the *regular* series in HCS will continue to be published in one or other of the quarterly editions but a small number will in future only appear in the annual publication. The majority of the *supplementary* tables will be published in the annual volume although a handful of the most topical supplementary tables will continue to be included in Part 2 of the quarterly publication. Two new tables will also be published quarterly. The quarterly volumes will contain shorter runs for earlier periods than previously although figures for the latest nine quarters will be shown.

Significant improvements in the timeliness of the housing and construction figures published quarterly will be obtained. Parts 1 and 2 of the new quarterly publication will be available up to 8 and 4 weeks earlier than the present publication.

Annual publication

The quarterly volumes will be complemented by a new annual publication, the first issue of which will be available in September 1980. It will give annual figures for the last 11 years for most of the regular and supplementary tables published at the moment but will also include some new tables and charts. Many of the results of the Private Contractors' Construction Census will be included in this volume.

A subject index and extensive notes and definitions covering the tables in the annual and quarterly publications will be included in the annual volume. The current publications *Private Contractors' Construction Census* and the *Notes and definitions supplement* to HCS will be discontinued.

The titles of the first editions of the new publications are: *Housing and Construction Statistics March quarter 1980* (Parts 1 and 2) (Price £1.15 net per Part) *Housing and Construction Statistics 1969–1979*.
Both the annual and quarterly publications will be available from HMSO and other leading bookshops.

Commercial and industrial floorspace

The Department of the Environment will shortly be publishing the eighth issue of its series of commercial and industrial floorspace statistics giving the estimated stock at 1 April 1979 and the changes in floorspace since 1976. The publication updates the results the 1974 Floorspace Census carried out by the Inland Revenue which was reported in *Statistics for Town and Country Planning Series II Floorspace No. 4;* and the subsequent annual changes in floorspace which were reported in *Commercial and Industrial Floorspace Statistics England and Wales 1974–77* and its sequel covering 1975–78.

Commercial and Industrial Floorspace Statistics, England, Wales 1976–79 gives the estimated floorspace stock in seven non-domestic use categories (Industry, Warehouses (covered), Warehouses (open land storage), Shops with living accommodation, Shops and restaurants, Commercial offices and Central Government offices) for regions, counties and local authority areas. Apart from Warehouses (open land storage) and Central Government offices for which no size grouping is available each of the use categories is analysed by three or four size groups in the regional tables. The publication shows for the same five use categories net and gross changes in floorspace area during 1976 and 1979. Increases in floorspace are shown separately for extensions, new and changes of use, while decreases distinguish between demolition and other reductions. Finally, the booklet includes detailed notes about these statistics and a short commentary on the figures. Unlike previous issues, no totals for 'England and Wales' are given; instead, totals for England and for Wales are listed separately. This change is reflected in the slightly altered wording in the title.

Floorspace data for Central Government offices, will be omitted from future issues in the series.

Further details about the availability of floorspace figures can be obtained from:

S7/25,
Department of the Environment,
2 Marsham Street,
London SW1.
Telephone: 01-212-8473.

Reference

Commercial and industrial floorspace statistics, England, Wales 1976–79 (HMSO 1980) (forthcoming)

The extent of the closed shop arrangements in British industry

As part of a wider study of the closed shop in Britain being carried out by a research team at the London School of Economics and financed by the Department of Employment, an article in the November issue of the Department's *Gazette* gave results from an analysis of the content and form of a sample of written closed shop agreements in British industry – commonly known as union membership agreements (UMAS). A further article based on the results of this main study has now been published in the January edition. It presents detailed figures on the industrial and occupational coverage of closed shops.

Closed shop practices now cover at least 5.2 million employees compared to 3.75 million found by the last comprehensive survey carried out in the early 1960's. The most pronounced growth has occurred in the food, drink and tobacco, clothing and footwear, gas, water and electricity and transport and communication sectors. Also significant in its spread has been the penetration of the closed shop onto white collar areas of employment. Today, at least 1.1 million non-manual employees (22 per cent of the closed shop population) are covered by such arrangements compared to 300,000 (8 per cent of the closed shop population) in the early 1960's.

Reference

'The extent of closed shop arrangements in British industry', John Gennard, Stephen Dunn and Michael Wright. Department of *Employment Gazette*, January 1980 (HMSO) (Price £1.35 net).

International comparisons of industrial disputes (1969–1978)

The latest statistics showing international comparisons of the incidence of working days lost from industrial stoppages for the years 1969 to 1978 are given in the February issue of *Employment Gazette*. The two sets of statistics given, compiled by the International Labour Office and the Statistical Office of the European Communities respectively, have different industry coverages. The former statistics embrace a wide coverage of countries and a limited band of industries. The

SOEC statistics, however, cover only the EEC member countries but relate to all industries and services.

Reference
Employment Gazette February 1980, Pages 161–162 (HMSO) (Price £1.65 net)

Job seekers and the employment service

A national sample survey of submissions and placings of the unemployed was commissioned as part of a recent internal review of the aims and objectives of the public employment service conducted by the Manpower Services Commission. The purpose was to identify the main direction and priorities for the development of the employment service over the next five years, and its findings were published under the title 'The Employment Service in the 1980s' in the November 1979 issue of *Employment Gazette*. The article in the February 1980 issue of the *Gazette* describes the results of the survey.

The purpose of the survey was to find the age of unemployed jobseekers submitted and placed by jobcentres and employment offices and the duration of their unemployment.

Reference
Employment Gazette February 1980, Pages 124–132 (HMSO) (Price £1.65 net)

DEFENCE STATISTICS

Statement on the Defence Estimates (1980)

The Defence White Paper *(Defence in the 1980's: Statement on the Defence Estimates 1980)* published on 2 April included, for the first time, a separate statistical volume (Volume II). In addition to the analyses of the Defence budget and of Service manpower previously given in Annexes to the annual White Paper, much entirely new material is presented. Figures are given on the values of exports and imports of defence equipment, on Defence research and development expenditure and on the activities of the Royal Dockyards and Ordnance Factories. In addition to the information on total strengths of Service personnel there is an analysis of trained strength, together with information on categories of outflow of personnel. On civilian manpower the tables include analyses of staff by function and by location, and there are details of the employment of apprentices. Statistics on the health of Service personnel, on schools for Service children, on types of use of Defence land holdings and on Service married accommodation are also presented for the first time.

A section of the statistical volume covers aspects of the relationship between the Defence services and the civilian community and includes tables detailing the work of the Meteorological Office, the Hydrographic services and the Search and Rescue services. There is also a table giving details of selected qualifications obtained under Service sponsorship. In general the tables give figures for the latest five years while financial and manpower forecasts are presented as appropriate for the forthcoming financial year, 1980–81.

Reference
Defence in the 1980's: Statement on the Defence Estimates 1980 Volume II (Cmnd 7826-11) (HMSO 1980) (Price £4.00 net).

PRICES

Retail prices index

A paper presented by Department of Employment statisticians to the Institute of Statisticians annual conference appeared in the March 1980 issue of *The Statistician*. It describes two aspects of the RPI that are of recent interest.

The first concerned the extent to which the RPI is representative of the experience of a wide range of household types, especially low income households, bearing in mind the rapid inflation in recent years. It concluded that the RPI is representative of price changes experienced by the vast majority of households.

The second aspect concerned a technical feature about the way the RPI is constructed at the item level of the index. For items such as sugar, a brand of petrol or a loaf of bread, about 500 to 800 quotations are collected each month. The article considers the method of stratifying the quotations and the choice of formula for combining them within each stratum where weighting information is not available, and in doing so treads new ground in index number methodology.

As a result of the work on which the article is based, technical improvements were made to the RPI in 1978.

Articles on the movements of retail prices in 1979 and on the annual revision of the RPI weights appeared in the March issue of *Employment Gazette*.

References
'Recent developments in the retail prices index' by A. G. Carruthers, D. J. Sellwood, P. W. Ward, *The Statistician*, Volume 29, Number 1 (Journal of the Institute of Statisticians) March 1980 *Employment Gazette*, March 1980 (HMSO) (Price £1.65 net)

Export price indices

In addition to collecting price quotations of goods sold on the home market by United Kingdom manufacturers for the compilation of the wholesale price index (WPI), the Department of Industry over the past few years has collected monthly data on export prices from a sample of firms within the Engineering and Vehicles sector (Orders VII to IX and XI of the Standard Industrial Classification). These data have been used to calculate export price indices for the period between either June 1975 or January 1976 and December 1979 and the indices were published in an article in *British business* on 9 May 1980.

The methodology adopted in compiling these indices was similar to that used for the WPI. Although the inquiry was initially confined to a small number of industrial sectors, the intention was to extend it to cover the major exporting industries so that a set of price indices relating to exported goods could be set alongside the wholesale price indices for home sales. The continuation of the inquiry could be justified only if coverage were extended in accordance with the original intention and that is no longer feasible. The need to reduce public expenditure and the burden of form-filling on companies means that the required resources for expansion will not become available, and therefore the work on export price indices has been discontinued.

Reference:
British business, 9 May 1980 (HMSO) (Price 50p net)

DISTRIBUTION AND SERVICES

Retail sales index

The retail sales index has been rebased on 1976=100. The index has been improved and brought up-to-date; it has been restructured so that it will project forward the results of the 1976 Retailing Inquiry using as a base the information collected in the inquiry and adopting the new kind of business categories. The main change in the kind of business categories, which have been brought more in line with the current pattern of retailing, is the introduction of a category of mixed retail businesses which includes all retailers who are not sufficiently specialised to be assigned to a specialist kind of business.

The rebased indices have been published in a new monthly Business Monitor SDM 28 – *Retail sales,* replacing the four separate monitors SDM1–4. Detailed indices also appear in the *Monthly Digest of Statistics.* A full description of the rebasing and changes to the index was given in *British business* on 29 February 1980.

Owing to the volume of work involved in rebasing the retail sales and retail credit series, the retailers' credit statistics will have to continue to be based on the results of the 1971 Census of Distribution for some further months.

Enquiries and any requests for data for earlier periods should be addressed to:

Mr. R. C. Keyse,
Department of Trade,
Room 351,
Sanctuary Buildings,
Great Smith Street,
London SW1P 3DB
Telephone: 01-215 3705

References
British business 29 February 1980 (HMSO, weekly, Price 50p net)
Monthly Digest of Statistics (HMSO, Price £3.55 net).

PUBLIC EXPENDITURE

The Government's expenditure plans 1980–81 to 1983–84

The annual White Paper on the Government's expenditure plans (Cmnd 7841) was published on Budget day, 26 March 1980. It set out the Government's plans for public expenditure for the years 1980–81 to 1983–84 expressed at 1979 survey prices and modified the plans for 1980–81 given in the interim public expenditure White Paper (Cmnd 7746) see *Statistical News* 48.39 and 49.32.

Part 1 of Cmnd 7841 explains how, by 1983–84, public expenditure is planned to be about 4 per cent lower than 1979–80 during which year the Government took office. In broad terms, expenditure on defence, law and order, and on health is planned to increase while spending on the industry, energy, trade and employment programme, housing and education and nationalised industries' borrowing are being substantially reduced over the period. By 1982–83 expenditure is planned to be 11½ per cent below the plans of the previous Government (Cmnd 7439). Part 5 gives tables comparing the plans in this White Paper with both Cmnd 7746 and Cmnd 7439. Part 2 of the White Paper shows details for each functional programme in chapters which explain the specific policy decisions behind the figures.

Part 3 of the White Paper sets out the new plans for the nationalised industries' capital requirements and financing and describes the plans for and recent experience of each industry. The territorial distribution of expenditure is described in Part 4: separate programmes covering the expenditure within the responsibility of the Secretary of State for Scotland and the Secretary of State for Wales will be introduced in the next public expenditure survey. In addition to comparisons with previous white papers, Part 5 includes analyses of debt interest, capital expenditure on construction work and capital expenditure in cost terms. A technical description of the concepts underlying the measurement of public expenditure is given in Part 6.

Reference
The Government's Expenditure Plans 1980–81 to 1983–84 (Cmnd 7841) (HMSO March 1980) (Price £6.25 net)

INCOME AND WEALTH

Trends in sales of land and buildings, 1973–79

An article on this subject was published in the March issue of *Economic Trends*. It is the fifth in a series published in *Economic Trends* and provides estimates of the value of sales of land and buildings in England and Wales from 1973 to 1979 and detailed estimates of sales in a particular month for each of the years 1973 to 1978.

The article is divided into five sections. The first gives broad trends of the value of sales in England and Wales, Scotland and Northern Ireland. The second provides a detailed analysis of sales in England and Wales for two survey months, one in each of the years 1977 and 1978. For each survey month data are analysed by type of property, price range, standard region and sector of seller and purchaser. These surveys are felt to provide reasonably accurate indications of trends in sales of residential property in the lower price ranges but are not expected to adequately cover the more variable field of non-residential property nor the highest price ranges. A comprehensive coverage of large property sales is therefore conducted and the third section provides details of these sales. All sales over £500,000 are included from the second quarter of 1974 and this was extended to all sales over £100,000 from the fourth quarter of 1976. The fourth section gives a summary of sales of leasehold properties. It analyses for residential and non-residential property the range of rent; the number of years to run on the lease and whether the lease was new or already existed for leasehold sales in November 1977 and November 1978. The fifth and final section provides estimates of the incidence of stamp duty by price range and by type of property.

Reference

Economic Trends No 317, March 1980 (HMSO) (Price £5.40 net)

The distribution of income in the United Kingdom, 1977/78

The February issue of *Economic Trends* gives the latest, 1977/78, estimates of the distribution of income for the United Kingdom. It also gives an analysis of pre-tax incomes by source (e.g. employment, self-employment investment, pensions, etc.) for 1968/69, 1971/72, 1974/75, 1976/77 and 1977/78 at different income levels. The income-receiving unit is the tax-unit, which is either a married couple or an unmarried individual who has left school.

The 1977/78 estimates show that the top 1 per cent of tax-units received 5.5 per cent of total pre-tax income, the top 10 per cent received 26.2 per cent and the bottom 10 per cent received 2.5 per cent; these percentage shares were the same as those for 1976/77. After tax, the income shares of the top 1 per cent and the top 10 per cent were reduced to 3.9 per cent and 23.3 per cent respectively, whilst the share of the bottom decile group rose to 3.0 per cent.

The top 1 per cent of tax-units paid on *average* 43 per cent of their pre-tax income in income tax. The next 9 per cent paid on average a 23 per cent, and the bottom 20 per cent paid 1 per cent.

Although the overall composition of personal income was quite stable over the ten years to 1977/78, the analysis by level of income revealed some marked changes, especially at the extremes of the distribution. The contribution of wages and salaries to the pre-tax income of the bottom quarter of income recipients fell over the period from 33.8 per cent to 22.0 per cent, while for the same group, state pensions and non-taxable benefits (such as supplementary benefit and unemployment benefit) rose from 54.6 per cent to 66.1 per cent. For those with very high incomes (the top 1 per cent), the contribution of income from investments was much reduced, falling from 32.8 per cent of total pre-tax income to 20.6 per cent over the ten-year period.

Reference

Economic Trends, No 316, February 1980 (HMSO) (Price £5.40 net).

The Survey of Personal Incomes 1977/78

The Survey of Personal Income 1977/78 giving the results of this survey, was published in April. Its coverage is very similar to that of the earlier *Survey* of *1975/76 and 1976/77*. It contains distributions of personal income before and after tax and distributions by marital status, size of family and type of income. There are analyses of income tax by range of tax and by type of tax (higher rates etc.) and a number of tables show derived data such as quantile shares of income and tax. Most of the data relate to the United Kingdom as a whole but income distributions are given for England, Scotland, Wales and Northern Ireland, and for the English regions and metropolitan counties while less detailed statistics are provided for the other counties of England and Wales and for the Scottish regions.

Several tables are included for the first time. One such table is a cross-classification of employment income of husbands and wives, and there are also new tables showing the main items of income and deductions for persons aged over 65. Tables showing the numbers, analysed by sex and marital status, of income tax payers liable at each marginal rate of tax are also included.

References

The Survey of Personal Incomes 1977/78 (HMSO 1980) (Price £5.25 net)

The Survey of Personal Incomes 1975/76 and 1976/77 (HMSO 1979) (Price £5.00 net)

A glimpse of the hidden economy in the national accounts

An article by K. M. Macafee of the Central Statistical Office describing the hidden economy and the difficulties surrounding the estimation of its size and growth appeared in the February issue of *Economic Trends*. The article explains that the widening gap between the unadjusted, preliminary estimates of the income and expenditure measures of gross domestic product can be a guide to the likely minimum size of the hidden economy and its growth. The article expresses doubts over the supposed correlation between note circulation and the size of the hidden economy and suggests that further work on measuring its size was likely to be too costly to be considered feasible at the present time.

Reference

Economic Trends No. 316 February 1980 (HMSO) (Price £5.40 net)

Dividend payments: some recent trends

An article in the Bank of England's March 1980 *Bulletin* examines some of the legal, fiscal and economic factors bearing on corporate decisions on the size of dividends, and investigates the path of dividends and dividend payout ratios over the period 1961–79. Controls on dividend payments by companies were lifted at the end of July 1979 after nearly six years of continuous operation. However, judged by the performance of real payout ratios, dividend controls do not seem to have had a powerful impact. It is noted that in an inflationary environment it is possible for companies to distribute to their shareholders 'real' capital as measured on a replacement cost basis. Another section sketches some of the competing hypotheses relating to the determination of the dividend policy and concludes that although a good deal of recent economic analysis suggests that shareholders should be indifferent between dividends and retentions, the factors of information and greater uncertainty probably generally predispose shareholders to favour dividends. It is argued that, although the historic cost payout ratio may be the usual benchmark used by management and shareholders, the real payout ratio deserves more prominence.

Copies of the Bank's *Bulletin* and off-prints of the article may be obtained from:

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

Note

Bank of England Quarterly Bulletin

With effect from the June edition a charge will be made for the *Bank of England Quarterly Bulletin* which has hitherto been free. The cost in the United Kingdom, by first class mail, will be £4.00 per copy. A charge will also be made for off-prints of articles.

Insurance Business Statistics

A new Business Monitor containing brief details of the net premium income and total assets of every company authorised to carry on insurance business in the UK is now available from HMSO. This publication, entitled *Insurance Business Statistics*, is numbered MA16 in the Business Monitor series. The current issue contains data from returns for accounting periods ending during 1976 and further issues containing data for later years will be published as soon as possible.

This Business Monitor supercedes the publication of the same name referred to in *Statistical News* No 42. Aggregate statistics of assets and liabilities, income and expenditure, and profit and loss of UK insurance companies for years up to 1977 are published in the *Annual Abstract of Statistics*. Owing to reductions in resources within the Economics and Statistics Division (Common Services) of the Departments of Industry and Trade, aggregate statistics for the years 1978 to 1981 will not be produced. It is expected that statistics for later accounting years will be produced from the computer analysis of returns received under the Insurance Companies (Accounts and Statements) Regulations 1980.

Further information about this Business Monitor is available from:

Economics and Statistics Division 6A,
Departments of Industry and Trade,
Room 349,
Sanctuary Buildings,
16–20 Great Smith Street,
London SW1P 3DB
Telephone 01-215 3162

Public Expenditure 1978–79: Outturn compared with plan: Treasury working paper No. 13

This new Treasury Working Paper (No 13 in the series) contains an examination of the difference between planned public expenditure and estimated outturn for 1978–79.

The paper analyses shortfall by programme, economic category, and spending authority, using tables to show where shortfall or excess expenditure occurred. Each programme is considered in terms of its major items. Tables at the end of the paper show, among other information, percentage shortfall by main programme and by spending authority and economic category for each of the years, 1972 –73 to 1978–79.

Planned volume in the paper is defined as that published in the White Paper just before the year began – for 1978–79 *The Government's Expenditure Plans 1979–80 to 1981–82* (Cmnd 7049) published in January 1978. It includes the contingency reserve which by the end of the year had been allocated to programmes. The planned programme figures take account of subsequent government decisions and changes in the classification of public expenditure. They also have been revalued to 1979 survey prices. The figures for outturn are those used in Cmnd 7746 *The Government's Expenditure Plans 1980–81* published in November 1979.

Copies can be obtained, at a handling charge of 50p a copy, from:

Committee Section,
HM Treasury,
Parliament Street,
London SW1P 3AG

References
The Government's Expenditure Plans 1980–81 (Cmnd 7746) (HMSO, November 1979) (Price 70p net)
The Government's Expenditure Plans 1979–80 to 1981–82 (Cmnd 7049) (HMSO January 1978)

Business Monitor MM17 – Price index numbers for Current Cost Accounting (monthly supplement)
The first issue of a Monthly Business Monitor, MM17 – *Price index numbers for Current Cost Accounting (monthly supplement)* was published in April by Her Majesty's Stationery Office. This Business Monitor provides the latest monthly data for series published in *Price index numbers for Current Cost Accounting,* a former Central Statistical Office publication now produced by the Department of Industry beginning with issue No 13. Full details of the purpose, content and methodology concerning the compilation of these price index numbers (on a 1975=100 base), together with historical series, are given in this main publication.

Reference
Business Monitor MM17 – *Price index numbers for Current Cost Accounting (monthly supplement)* (HMSO, Annual subscription £7.75).
Price index numbers for Current Cost Accounting No 13 (HMSO) (Price £6.00 net).

Regional accounts
The timing of publication of the regional accounts in *Economic Trends* is to be changed. Last year the preliminary estimates for 1977 were published in June in summary form, and revised figures in greater detail were given in November. This year it is intended to publish the regional accounts for 1978 and preliminary accounts for 1979 in an article in the November issue of *Economic Trends.* No summary figures will be given in June. The overall effect will be to improve the timeliness of the estimates of regional GDP and personal disposable income. Under the previous schedule preliminary estimates for 1979 would not have appeared until June 1981.

Certain other changes to the regional accounts are expected, resulting from cuts in the resources available. The tables on consumers' expenditure and indirect taxes and subsidies will not be updated, and the coverage of industries in the fixed investment table will be reduced.

Reference
Economic Trends (HMSO), monthly (Price £6.45 net).

Financial Statistics
In the January issue of *Financial Statistics* the table showing the public sector borrowing and contributions to the public sector borrowing requirement included a column for borrowing by central government on own account.

In the February issue the tables giving analyses by sector of British government securities and Treasury bills was changed to show life assurance and superannuation funds separately and to include insurance companies' general funds with 'other' financial institutions.

The March issue introduced seasonally adjusted figures for total consumer credit. The tables on unit trusts and investment trusts were changed to show extra information from a revised enquiry. This edition also contained fourth quarter 1979 figures used in the pre-budget press releases published rather earlier than is usual.

Reference
Financial Statistics January, February and March 1980 (HMSO) (Price £4.10 net, each).

Financial Statistics Explanatory handbook
The 1980 edition of *Financial Statistics Explanatory Handbook* was issued in April. This is the third edition and updates the previous issues and contains some additional material, notably two further illustrations depicting the main financial flows in a recent year and a new Annex which provides brief explanatory notes on the regular supplementary tables which appear in the monthly publication.

Reference
Financial Statistics Explanatory handbook, 1980 Edition (HMSO) (Price £4.10 net).

Financial Statement and Budget Report 1980–81
The *Financial Statement and Budget Report 1980–81* (FSBR) was published on 26 March.

Part I of the publication deals with the tax proposals and the public expenditure measures in the Budget and includes a table showing their estimated direct effects on the transactions of the public sector and its borrowing requirement (PSBR) in 1980–81.

Part II presents the Government's medium term financial strategy. It gives projections of general government expenditure, receipts and the PSBR in 1978–79 prices up to 1983–84 as well as ranges for the growth of the money stock (£M3) over this period. It is the Government's objective to reduce the annual growth of money supply to 6 per cent by 1983–84.

Part III explains the general economic background to the Budget including recent developments in the economy and the prospects to mid–1981. Forecasts are given of the main economic indicators, including the PSBR and changes in real gross domestic product, consumers' expenditure and the retail price index over the period.

Part IV presents the estimated outturns of the transactions of the public sector in 1979–80, and the forecasts after Budget changes for 1980–81, on a national income accounting basis, leading to estimates of the financial deficit and the PSBR. The latter is estimated to have been just over £9 billion in 1979–80 and is forecast to be £8½ billion in 1980–81 after taking account of the Budget measures. The forecasts included in Tables 14 and 16 of Part IV of the FSBR can be monitored on a quarterly basis by reference to Tables 2.7 and 2.4 respectively in *Financial Statistics*. Tables showing the financing of the capital requirements of each nationalised industry in both years are also included in Part IV of the FSBR.

Part V deals with central government transactions in 1979–80 and 1980–81 presenting them on both the conventional cash basis of the Exchequer Accounts and on a national income accounting basis. The outturns of the forecasts in Tables 18–22 of Part V are published monthly in a Treasury press notice issued seven working days after the end of the month and subsequently included in Tables 3.1–3.5 of *Financial Statistics*. Quarterly figures of central government transactions on a national income accounting basis are included in Tables 3.6 and 3.7 of the same publication.

References
Financial Statement and Budget Report 1980–81 (HMSO 1980) (Price £3.25 net).
Financial Statistics (HMSO) monthly (Price £4.10 net).

OVERSEAS FINANCE

Uk manufacturing industry: international integration and trade performance

In the light of the United Kingdom's deteriorating trade performance in manufactured goods, an article in the Bank of England's March 1980 *Bulletin* examines the possibility that there may have been an important relationship between the extent of an industry's international integration and developments in its trade performance during the 1970s. The real significance of multi-national firms is that, as they operate internationally, they are likely to be more sensitive than national firms to changes in the world economic environment, and consequently to relative changes in the economic performance of countries in which they operate. Using certain data which have become available during the last few years, the analysis suggests that although those sectors of UK industry in which foreign participation is high still tend to have relatively more favourable trade balances than the rest of the industry, it is in these sectors that the biggest deterioration in UK trade performance appears to have occurred during the 1970s. It is thought that this resulted from firms which operate in more than one country tending to concentrate their output elsewhere because of weaknesses in UK industry with regard to productivity, profitability and uncertainties caused by high inflation.

Revised Arrangements for medium and long-term sterling export and home shipbuilding credits

A technical note in the Bank of England's March 1980 *Bulletin* describes the changes, announced on 13 February 1980 by the Minister for Trade, in the arrangements for the fixed-rate sterling financing of medium and long-term export and home shipbuilding credits. These modifications are designed to reduce the public expenditure cost of the schemes by withdrawing refinance facilities on new business while ensuring the continued availability of an adequate supply of fixed-rate sterling finance. Provision has been made for the participation of a wider range of lending institutions.

Copies of the Bank's *Bulletin* and off-prints of the articles may be obtained from:

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

(See **Note** on page 32)

Notes on budgetry structure in developing countries

This paper, by a Treasury official lately Financial Adviser to a developing country, examines the proposition that developing countries, who tend to have objectives for economic management differing from those of industrialised countries, should have a different type of budgetry structure, The budgets of twelve developing countries (all formerly in the British sphere of influence) are analysed, and two general questions – the link of budgetry accounting with national accounting and the use of programme, or output budgeting – are also considered. The conclusions are that a different structure is desirable, laying emphasis on capital spending, a close link between longer term budgeting and a national plan, an accounting system reconcilable with national accounts, and perhaps a simple form of output budgeting. A model budgetry structure on these lines is set out.

Copies are obtainable from:

D. M. Thompson,
HM Treasury
Parliament Street,
London SW1P 3AG

Monthly review of external trade statistics

The *Monthly Review of External Trade Statistics* contains mainly statistical information on UK overseas trade, as well as certain international and miscellanous data. Although the *Monthly Review* is prepared mainly as an internal working document, it is published by the Departments of Industry and Trade on a regular basis.

The format of the *Monthly Review* has recently been revised. A slightly slimmer, more timely, monthly issue is now being produced, together with an annual supplement. The monthly publication contains a commentary section and charts as well as tables covering principally the current account of the UK balance of payments, an analysis of UK exports and imports of goods by commodity and area, and certain international comparisons. The annual supplement provides longer historic runs of data for the series shown in the monthly edition, and additional international data. (The latter information was previously included in the monthly edition, but cannot readily be updated regularly).

Enquiries about the *Monthly Review* should be addressed to:

Miss E. Smallpage,
Departments of Industry and Trade,
Room 243B
1 Victoria Street,
London SW1H 0ET
Telephone: 01-215 3211

Overseas travel and tourism

A new monthly series of overseas travel and tourism was introduced in *British business* in April. This series will provide an early indication of the quarterly results of the International Passenger Survey (IPS), which were last published in *British business* 28 March 1980 and Business Monitor MQ6, Fourth Quarter 1979.

The series, to be published monthly, consist of the number of tourist visits to the UK by overseas residents with a breakdown by visitors from the European Community, the rest of Western Europe, North America, and other countries; the number of visits abroad by UK residents, also broken down by the four areas, and the total spending in each direction, which forms the travel account of the balance of payments. These monthly figures will be early estimates, liable to revision when the full quarter's information is received. The quarterly figures will remain the definitive series, and are also presented in more detail as regards geographical breakdown, mode of travel, and purpose of visit.

Enquiries to:

Tourism Statistics,
EcS5B3
Room 656 Sanctuary Buildings,
19/20 Great Smith Street,
London, SW1P 3DB
Telephone 01-215 3491

References

British business, 28 March, 25 April 1980 (HMSO) (Price 50p net each issue)

Business Monitor MQ6 – *Overseas Travel Tourism* (HMSO, quarterly)

CONFERENCES AND MEETINGS

COMPSTAT 1980

The organisers of COMPSTAT 1980 have reported a very large response to their Call for Papers, the closing date for which was 15 January. More than 22 abstracts were received of which the Programme Committee have now selected 72 for presentation at COMPSTAT 1980. The Symposium is to be held at the University of Edinburgh from 18 to 22 August.

Over 300 people have registered already for the Symposium, which is fourth in a series of biennial European meetings, the previous three being held in Vienna in 1974, Berlin in 1976, and Leiden in 1978.

The COMPSTAT 1980 programme will include papers from many distinguished contributors to the field of computational statistics. The opening session is to be chaired by Professor D. J. Finney of the University of Edinburgh, and invited speakers will include Professor E. M. L. Beale of Imperial College, London and SCICON; Professor I. Francis of Cornell University; Professor R. Tomassone, Laboratoire Biometre, Institut National de la Recherche Agronomique; and Professor J. Tukey of Princeton University.

COMPSTAT 1980 will be of interest to anyone involved in computing or statistics. Papers will include reviews of current methodology and discussions of the most commonly used statistical packages (whose authors will be present) as well as descriptions of recent research on new techniques and software. An exhibition featuring the main statistical packages, computational aids and micro-processors is also planned, and participants will have the chance to test packages (old and new) in a series of software demonstrations.

Everyone interested in attending COMPSTAT 1980 is advised to register early. Further information and registration forms can be obtained from the Conference address:

COMPSTAT 1980,
c/o Director,
Program Library Unit,
University of Edinburgh,
18 Buccleuch Place,
Edinburgh EH8 9LN

Annual Conference of the Institute of Statisticians

'Censuses and Sample Surveys' is the theme of this year's annual conference of the Institute of Statisticians, to be held at Trinity College, Cambridge from 2nd to 5th July. It is a particularly appropriate subject for discussion at a time when many countries, including the UK, are planning censuses of population in 1981 and investigating the use of sampling to reduce the burdens both of collection and analysis. An internationally distinguished panel of speakers has agreed to contribute papers on such topics as 'improving the quality of reporting of behaviour in sample surveys', 'censuses in developing countries' and 'advantages and disadvantages of panel surveys'. Further papers and poster displays will also be presented. Details may be obtained from:–

Mrs T. J. Konrath,
Institute of Statisticians,
36 Churchgate Street,
Bury St. Edmunds,
Suffolk IP33 1RD
Telephone: 0284 63660

or J. C. Imber,
Department of Industry,
1922 Millbank Tower,
London SW1P 4QX
Telephone: 01-211 4380

INTERNATIONAL

World Fertility Survey

A publication of possible interest to readers of *Statistical News* has been produced under the World Fertility Survey programme under the title of *Illustrative Analysis: Socio-Economic Determinants of Contraceptive Use in Thailand.* Using data from the 1977 Survey of Fertility in Thailand, the report analyses socio-economic determinants of contraceptive use in Thailand.

Its starting point is the preliminary findings contained in Volumes I and II of the *Survey of Fertility in Thailand: Country Report,* published in 1977 jointly by the Institute of Population Studies, Chulalongkorn University, and the Population Survey Division, National Statistical Office. The objective is to ascertain, and to try to quantify, the relationship between various socio-economic characteristics of Thai couples and their contraceptive behaviour in a manner that illustrates the application of certain analytical techniques and their associated problems. The focus is exclusively on differentials in use and no attempt is made to explain the overall level of contraceptive practice in Thailand. To place this study in its broad context, the history of family planning in Thailand and a description of the methodology and relevant preliminary findings of the fertility survey are reviewed briefly before the details of the present analysis are discussed.

Further information and copies of the publication may be obtained from:

Publications Office,
International Statistical Institute,
428 Prises Beatrixlaan,
2270 AZ Voorburg,
Netherlands

PUBLICATIONS

Monthly Digest of Statistics

The *Monthly Digest of Statistics* underwent a major change in style, arising from the new method of production, with effect from the March issue. This makes the publication more pleasing to the eye and easier to read. It must be pointed out, though, that the *Digest* will continue to provide the same useful series of varied data it always has.

One major 'internal' improvement within the contents of the *Digest* has been the streamlining of the section on Home finance, which has been reduced to avoid the duplication with *Financial Statistics*. As a result the *Digest* now shows only 5 tables for this series. These are: Central government financial transactions; Public sector borrowing requirement; Selected financial transactions; Money stock and domestic credit expansion; Selected interest rates, exchange rates and security prices.

Reference

Monthly Digest of Statistics (HMSO) (Price £3.55 net).

Facts in Focus – fifth edition

The latest edition of *Facts in Focus,* published in paperback by Penguin, contains facts for the amateur, as well as the professional. It is a reference book for the home as well as the student. It offers inexpensive access to a vast range of statistics and is compiled by the Central Statistical Office.

Over 200 tables give figures for three different years covering the last decade or so. Long term trends e.g. from 1901 for Population changes, are shown in the 40 charts.

Facts in Focus includes data on health, population, housing, law and order, education, social services, production, agriculture, science and technology, energy, transport, trade, national income and expenditure, wealth, and leisure. A separate section gives some comparisons with other EEC countries, Japan, the United States of America and the USSR.

This edition has been substantially revised and updated, incorporating a number of entirely new tables and the most recent developments.

Reference
Facts in Focus, 5th edition, (Penguin, in association with HMSO, 1980) (Price £2.50 net) ISBN 0 14 051.053 2

Guide to official statistics

The third edition of the post-war *Guide to Official Statistics* is now available. This edition builds on the success of its two predecessors, the first of which was awarded the Library Association's Besterman Medal for the outstanding bibliography or guide to the literature.

The main part of the *Guide* (the Subject List) provides detailed information on some 2,500 statistical sources published during the last ten years and covers over 1,000 topics. The *Guide* is therefore of prime importance both for existing and potential users of these statistics.

New to this edition are three annexes which list articles published in *Economic Trends, Social Trends* and *Statistical News* and a fourth annex which lists the sources of data incorporated in the Index of Industrial Production. Sources of statistics of the Channel Islands have also been included for the first time.

Since publication of the first edition in 1976 a network of contributors has enabled the file of information held on computer to be continually updated. Well over 2,500 amendments and additions have been made to the Subject List alone. In addition, the Keyword Index has been improved and expanded under the guidance of Susan Foreman, MA, ALA, a professional librarian, and now gives the location of about 5,000 keywords throughout the main part of the *Guide.* Details of statistical publications are listed in a separate bibliography for each source identified and a list of contact points in central government departments for those requiring further information is also included.

Reference
Guide to Official Statistics No 3, 1980 (HMSO) (Price £18.50 net).

Annual Abstract of Statistics, 1980 Edition

Further amendments

The following further amendments should be made to this edition:

Table 8.2 Index of industrial production

General chemicals, MLH 271

1969 **delete** 160.0 **insert** 91.9
1970 **delete** 164.0 **insert** 94.7
1971 **delete** 166.1 **insert** 95.3
1972 **delete** 172.3 **insert** 98.9

Reference
Annual Abstract of Statistics No 116–1980 Edition (HMSO) (Price £11.90 net)

Corrections to entry in Statistical News No. 48, February 1980

Page 48.42
line 12 **delete** 'These' **insert** 'Three'
line 15 after indices **insert** 'of agricultural prices for the United Kingdom based on 1975 have been introduced. These new indices'

SSRC Survey Archive Data Catalogue

The Survey Archive, Britain's largest national repository of machine-readable data in the social sciences, has now published its up-to-date comprehensive catalogue. The guide contains standardised entries far all surveys, fully describing the variables included and giving full fieldwork and bibliographic information.

Reference
SSRC Survey Archive Data Catalogue,
available from the SSRC Survey Archive, University of Essex, Wivenhoe Park, Colchester, Essex CO4 3SQ. (Price £19.50 net) ISBN 0 906805 00 7

Privacy and Access to Government Data for Research

The concern of this bibliography is the challenge made to individual privacy by the collection, storage and dissemination of personal data by government agencies. In recent years, growing public awareness of the increasing amount of personal data stored by governments and the availability for research purposes of such information, has resulted in a large number of publications on the subject. The bibliography, compiled during the now famous 'privacy project' supported by the Ford Foundation, provides a selective guide to both published and unpublished material.

The volume is organised in six broad subject sections:

- Privacy; Computers and data banks; general issues and public concern;
- Government statistical data banks;
- Uses of Government microdata for research and statistical purposes;
- Legal Aspects of privacy and data protection;
- Data security measures in computer systems;
- Selected bibliographic materials.

Topics are usually divided by the five countries included in the scope of the research project: the United Kingdom, Sweden, the Federal Republic of Germany, Canada and the United States. A further category lists items which are international in scope.

Reference

Privacy and Access to Government Data for Research, compiled by David H. Flaherty and others. (Mansell 1979) (Price £15 net) ISBN 0 7201 0920 5

Statistical Reference Index

After nearly two years of planning and development, Congressional Information Service, Inc., has published the first monthly issue of its *Statistical Reference Index* (SRI). The new indexing and abstracting service provides current access to the statistical publications of more than 1,000 American organisations, including: trade, professional, and other non-profit associations and institutes; commercial organisations and publishers; university and independent research centres; state government agencies; and other significant sources. A great majority of the indexed publications are available through the companion *SRI Microfiche Library.*

The monthly service complements the coverage of CIS's *American Statistics Index* and *ASI Microfiche Library,* a comprehensive system of access to federal statistical publications.

SRI covers a balanced cross-section of high-quality, current statistical data on a wide-range of topics, including; industrial production, business and finance, government and politics, health, socioeconomic trends, the environment, demography, and many others. CIS anticipates that in 1980 the service will cover approximately 3,000 titles, representing some 7,000 individual issuances.

The monthly SRI index and abstracts issues are designed for both general and specialised information searches. Publications are indexed by subject and name, by category of data breakdown (e.g. by state, by sex, or by specific industry), by title, and by issuing organisation. The companion abstracts summarise the subject matter of each publication and describe the content, level of detail, time period, and major breakdowns of the statistical material. They also provide complete information on periodicity, publication date, ordering address, price, and SRI micro-fiche availability. SRI indexes are cumulated monthly and quarterly, with annual cumulations of both indexes and abstracts.

The *Statistical Reference Index* and *SRI Microfiche Library* are available on subscription from CIS. For further information, contact:

Congressional Information Service, Inc.,
7101 Wisconsin Avenue,
Suite 900–SRI
Washington D C 20014
Telephone: (301) 654–1550

Engineering Industry Training Board

The Engineering Industry Training Board (EITB) have recently produced two publications. The first is a Working Paper on *The cost to firms of training professional engineers in 1976/77.* It is the latest in a series of surveys carried out by the Board into the cost of training in the Engineering Industry. The survey took place between May and September 1977 and investigated the costs of training professional engineers in the 1976/77 training years.

The second publication is a Reference Paper, *A guide to sources of local labour market information.* The Research Division of the EITB was involved in a study of the Gloucestershire local labour market and this guide was produced last year to fulfil a need not met at that time by any other publication. After a discussion of the main sources, the information is listed under certain broad topic headings. The appendices contain general information and useful addresses.

References

The cost to firms of training professional engineers in 1976/77, EITB Working Paper WP/3/79 (EITB 1979) ISBN 0 85083 481 1

A guide to sources of local labour market information EITB Reference Paper RP/5/79 (EITB 1979) ISBN 0 85083 480 5

For further information and copies of the publications write to:

Engineering Industry Training Board,
54 Clarendon Road,
Watford WD1 1LB

GOVERNMENT STATISTICAL SERVICE

Appointments and Changes

Mr D. E. Bradbury, Chief Statistician, Transferred on 7.1.80 to Department of Education and Science from Department of Employment (MSC).

Mrs C. M. Firth, Chief Statistician, Department of Education and Science, retired on 4.1.80

LATE ITEMS

People and their Families

People and their Families which has been prepared jointly by the Central Policy Review Staff and the Central Statistical Office was published in May as a contribution to public discussion about the family and related policies.

People and their Families brings together available information about families generally, and three different age groups – children, young people and the elderly. Its main purpose is to draw attention to existing patterns of family life and to illustrate the more important trends and developments. It also tries to identify some of the general issues which arise in the development of social policies. Its contents are primarily factual and are based on a range of statistics from within government and outside; many of the trends and changes are illustrated by the use of coloured charts in the style of *Social Trends*. Each chapter has a short introduction prepared by the Central Policy Review Staff to draw together some of the main issues which arise. Publication does not imply that the Government is committed to any views expressed in the book.

People and their Families consists of 5 main chapters – Children under 16; The 16–24s; The Elderly; The Family (Structure and Changing Trends); and The Family (Financial).

Reference

People and their Families (HMSO) May 1980 (Price £6.30 net).

Scottish economic bulletin

The latest issue of the *Scottish Economic Bulletin* contains two articles which may be of interest to readers. The first, entitled 'Overseas investment in Scottish manufacturing industry' outlines the current employment position in the overseas-owned manufacturing sector in Scotland, including its regional and industrial distribution. The article goes on to consider the employment performance of overseas-owned plants and discusses recent developments and, finally, compares the Scottish record with experience in the rest of the United Kingdom.

The second article, 'Small units in Scottish manufacturing', examines the role of small manufacturing units – as distinct from small firms – in employment change over a period of 2 decades. The first section provides a description of the role of small units in Scottish employment in the mid 1970s. This is followed by analyses of components of employment change over the 5-year periods between 1954 and 1974, and a similar analysis for the 20-year period taken as a whole. The final section analyses some characteristics of originally small units whose employment had risen to over 200 by 1974.

Reference

Scottish Economic Bulletin, Number 20/Spring 1980 (HMSO) (Price £3.50 net).

National Institute of Economic and Social Research

Readers may wish to note recent articles published in the two latest editions of the quarterly *National Institute Economic Review*. Two special articles were published in the November 1979 edition.

The first, by R. W. R. Price, entitled 'Public Expenditure: Policy and Control' explains that a major factor in the 1979 public expenditure cuts is the long run tendency for public expenditure to increase in relative cost. It traces the origins of this to the inadequate measurement of public service, output and describes the historical trends in the 'relative price effect'. The article argues for a better measure of output and cost in the government sector so that the development of services can be planned more coherently without recourse to programme cuts. It shows that cash limits do not fully solve the problem, and that the recent cuts will have no immediate effect on the share of government spending in GDP.

The second article is by R. L. Major and called 'Britain's Trade and Exchange-Rate Policy'. The National Institute has launched a series of conferences on important issues of economic policy. The conference papers and accounts of the conference discussions are being published by Heinemann Educational Books. The first two books in the series, entitled *Demand Management* and *De-industrialisation*, were the outcome of conferences held in December 1977 and June 1978 respectively. The third book, of which this article gives a brief summary under the same title, appeared this month, following a conference in June 1979. The purpose of the conference was to provide a forum for discussion of the trade and exchange-rate policies which the United Kingdom should pursue domestically and advocate in the international arena, and the choice of topics reflects the attention recently devoted there to non-tariff barriers to trade, general economic relations between North and South, the European Monetary System, and its differing implications for debtor and creditor countries. Future studies will be conducted under the joint sponsorship of the National Institute, the Policy Studies Institute and the Royal Institute of International Affairs. The first under the new arrangement will take place in June, with 'Britain in Europe' as its theme. The series has been started with financial support from the Nuffield Foundation.

The February, 1980 issue of the *Review* contained two articles, the first of which is by David Savage. Entitled 'Some Issues of Monetary Policy' it discusses the two main issues of monetary policy making: first, which variable, or set of variables, should be controlled and, secondly, how should this control be achieved.

The second article, by Christopher Allsopp and Vijay Joshi, under the title 'Alternative Strategies for the UK', surveys and evaluates the major controversies over alternative strategies for the UK economy in a non-technical manner, concentrating on the positions of three groups prominent in economic forecasting and policy analysis – the National Institute, the London Business School Centre for Economic Forecasting and the Cambridge Economic Policy Group.

Reference

National Institute Economic Review, No 90, November 1979 and No 91, February 1980 (NIESR) (Price £4.00 each net).

Alphabetical Index

The index to *Statistical News* covers the last nine issues. Page numbers are prefixed by the issue number, e.g. 41.30 signifies number 41, page 30.

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

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.

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