PA396

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1977

**Business Statistics Office** 

**Business Monitor** 

Report on the Census of Production

Jewellery and precious metals





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Commencing with the 1971 Census, the Census of Production reports are being numbered in a uniform series embracing all industrial inquiries in the Business Monitor series. These Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) or Q (quarterly) or M (monthly): and then by a number indicating the minimum list heading, or sub-division of a minimum list heading, of the Standard Industrial Classification (revised 1968).

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# PA396

# **Business Monitor**

A publication of the Government Statistical Service

Report on the Census of Production 1977

# Jewellery and precious metals

Presented by the Secretary of State for Industry to Parliament in pursuance of the Statistics of Trade Act 1947 (10 & 11 Geo.6 Cha.39 sec 7)

Department of Industry
Business Statistics Office

London: Her Majesty's Stationery Office

Introductory notes

Stone and slate quarrying and mining

Chalk, clay, sand and gravel extraction

Miscellaneous mining and quarrying

Bacon curing, meat and fish products

Cocoa, chocolate and sugar confectionery

Petroleum and natural gas

Milk and milk products

Bread and flour confectionery

Fruit and vegetable products

Vegetable and animal oils and fats

Spirit distilling and compounding

Coke ovens and manufactured fuel

Pharmaceutical chemicals and preparations

Synthetic resins and plastics materials and

Animal and poultry foods

PA229.2 Starch and miscellaneous foods

Brewing and malting

PA239.2 British wines, cider and perry

Mineral oil refining

Inorganic chemicals

Toilet preparations

Soap and detergents

Dvestuffs and pigments

PA279.2 Formulated adhesives, gelatine, etc.

PA279.7 Photographic chemical materials

Iron and steel (general)

Miscellaneous base metals

Metal-working machine tools

PA333.3 Compressors and fluid power equipment

Textile machinery and accessories

Mechanical handling equipment

PA339.3 Refrigerating machinery, space-heating, ventilating and air-conditioning equipment

Aluminium and aluminium alloys

Copper, brass and other copper alloys

Agricultural machinery (except tractors)

Construction and earth-moving equipment

PA339.2 Printing, bookbinding and paper goods machinery

Scales and weighing machinery and portable

Food and drink processing machinery and

synthetic rubber

PA279.3 Explosives and fireworks

PA279.4 Formulated pesticides, etc.

Fertilizers

PA279.6 Surgical bandages, etc.

Steel tubes

Pumps

Iron castings etc.

Industrial engines

Office machinery

Mining machinery

power tools

Lubricating oils and greases

Coal mining

Grain milling

Biscuits

Margarine

Soft drinks

Tobacco

PA271.2 Organic chemicals

Paint

PA279.1 Polishes

PA279.5 Printing ink

PA271.3 Miscellaneous chemicals

Sugar

PA1001

PA101 PA102

PA103

PA 109

PA211

PA212

PA213

PA214 PA215

PA216

PA217

PA218

PA219

PA221

PA229.1

PA231

PA232

PA261

PA262

PA263

PA271.

PA273

PA274

PA275

PA277

PA311

PA312

PA313

PA322

PA323

PA331

PA332

PA334

PA335

PA336

PA338

PA339 1

PA339 5

PA339.7

PA333 1

PA333.2 Valves

PA239.1

DA260 1	Electrical anning to the second
FA309.1	Electrical equipment for motor vehicles, cycles and aircraft
	and ancial t

PA369.2 Primary and secondary batteries
PA369.4 Electric lamps, electric light fittings, wiring accessories, etc.

Shipbuilding and marine engineering Wheeled tractor manufacturing Motor vehicle manufacturing PA381 PA381.2 Trailers, caravans and freight containers

PA382 Motor cycle, tricycle and pedal cycle manufacturing Aerospace equipment manufacturing and repairing Locomotives, railway track equipment, railway carriages, PA384

wagons and trams PA390 Engineers' small tools and gauges PA391 Hand tools and implements

PA392 Cutlery, spoons, forks and plated tableware, etc.

PA393 Bolts, nuts, screws, rivets, etc. PA394 Wire and wire manufactures PA395 Cans and metal boxes

Jewellery and precious metals
Metal furniture PAROS PA399.1 Drop forgings, etc.

PA399 6 Metal hollow-ware PA399.8 Miscellaneous metal manufacture Production of man-made fibres

PA412 Spinning and doubling on the cotton and flax systems PA413 Weaving of cotton, linen and man-made fibres PA414 Woollen and worsted

PA415 PA416 Rope, twine and net

PA417.1 Hosiery and other knitted goods

PA417.2 Warp knitting PA418 PA419 Carpets

PA421 Narrow fabrics PA422.1 Household textiles and handkerchiefs Canvas goods and sacks and other made-up textiles

PA422.2 PA423 Textile finishing PA429.1 Asbestos

PA429.2 Miscellaneous textile industries PA431 Leather (tanning and dressing) and fellmongery

PA432 Leather goods PA433

PA441 Weatherproof outerwear PA442 Men's and boys' tailored outerwear PA443 Women's and girls' tailored outerwear PAAAA Overalls and men's shirts, underwear, etc.

PA445 Dresses, lingerie, infants' wear, etc. PA446 Hats, caps and millinery

PA449.1 Corsets and miscellaneous dress industries PA449.2 Gloves PA450

Footwear PA461.1 Refractory goods PA461.2 Building bricks and non-refractory goods

PA462 Pottery PA463

Glass PA464 Cement PA469.1 Abrasives

PA469.2 Miscellaneous building materials and mineral products PA471 Timber

PA472 Furniture and upholstery Bedding, etc. PA474 Shop and office fitting

PA475 Wooden containers and baskets Miscellaneous wood and cork manufactures

PA481 Paper and board PA482 1 Cardboard boxes, cartons and fibre-board packing cases PA482.2 Packaging products of paper and associated materials

packaging and bottling machinery PA339 9 Miscellaneous (non-electrical) machinery Manufactured stationery Industrial (including process) plant and steelwork PA484 1 Wallcoverings

PA342 Ordnance and small arms PA484.2 Miscellaneous manufactures of paper and board PA349 1 Ball, roller, plain and other bearings PA485 Printing, publishing of newspapers and periodicals General printing and publishing PA349.2 Precision chains and other mechanical engineering PA351 Photographic and document copying equipment PA491 Rubber

PA352 Watches and clocks PA492 Linoleum, plastics floor-covering, leathercloth, etc. PA353 Surgical instruments and appliances PA493 Brushes and brooms PA354 Scientific and industrial instruments and systems PA494 1 Toys, games and children's carriages PA361

Electrical machinery PA494.3 Sports equipment PA362 Insulated wires and cables PA495 Miscellaneous stationers' goods PA363 Telegraph and telephone apparatus and Plastics products equipment PA499 Musical instruments PA364

Radio and electronic components PA499.2 Miscellaneous manufacturing industries PA365.1 Gramophone records and tape recordings PA500 Construction

PA365.2 Broadcast receiving and sound reproducing Gas equipment PA602 Electricity PA366 Electronic computers PA603 Water supply PA367 Radio, radar and electronic capital goods PA1002 Summary tables PA368 Electrical appliances primarily for domestic use

# PA396 JEWELLERY AND PRECIOUS METALS

PA396

The information in this report relates to establishments classified to the Jewellery and precious metals industry, minimum list heading 396 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

Smelting, refining etc., gold, silver and platinum, etc.; cutting and polishing precious stones; manufacturing ornaments of gold, silver, pewter, or plated with gold, silver, etc.; and manufacturing jewellery, coins and medals. The Royal Mint is included.

> In interpreting the data in the tables it is essential to bear in mind the notes and definitions which commence on page (iii).

#### LIST OF CONTENTS

Table No	Title	Page
1	Output and costs, 1973–1977	2
2	Capital expenditure, 1973—1977	3
3	Stocks and work in progress, 1973—1977	3
4	Analysis of establishments by size, 1977	4–5
5	Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1977	6
6	Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 20 or more persons, 1977	7
7	Percentage analysis of employees, by full and part-time employment and sex, 1977	7
8	Operating ratios, 1977	8

PA396

Output and costs, 1973–1977
All United Kingdom establishments classified to the industry (a)

	Unit	1973	1974	1975	1976	1977
Enterprises (b)	Number	789	884	922	990	1,010
Establishments (b)	Toyal Asia; is on	804	898	939	1,013	1,038
Sales of goods produced	£ thousand	236,933	335,421	360,202	510,301	593,244
Receipts for work done and industrial services rendered	(iii) seed no es	(c)	(c)	(c)	2,237	3,048
Capital goods produced for establishments' own use	"	98	150	948	267	1,039
Non-industrial services rendered	***	101	204	204	168	216
Goods merchanted or factored		9,402	13,272	16,879	30,329	36,838
Total sales and work done (d)	"	246,535	349,048	378,233	543,302	634,385
ncrease during the year, work in progress and goods on hand for sale	"	8,499	9,663	10,297	13,163	41,517
Gross output	,,	255,035	358,711	388,530	556,465	675,902
Purchases of materials for use in pro- luction, and packaging and fuel	"	185,247	260,132	266,639	416,620	453,774
urchases of goods for merchanting or actoring	"	7,447	11,326	13,626	22,699	26,618
ncrease during the year, stocks of naterials, stores and fuel	"	8,609	7,277	9,661	32,607	-10,322
Cost of industrial services received	"	2,745	3,650	3,807	5,238	6,470
Net output	"	68,204	90,880	114,120	144,515	178,719
otal employment (e)	Thousands	17.3	19.4	18.3	19.1	19.4
Net output per head	£	3,950	4,681	6,247	7,558	9,189
ayments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	635	696	832	740	586
Rents of industrial and commercial buildings		(f)	(f)	(f)	2,295	1,908
Commercial insurance premiums	,,	748	1,096	1,422	2,072	2,424
Bank charges	,,	55	297	146	81	372
Other non-industrial services		3,318	4,309	4,800	9,168	29,871
icensing of motor vehicles	<b>"</b>	26	33	52	49	61
ates, excluding water rates		723	1,061	1,418	1,706	1,999
Gross value added at factor cost		62,700	83,388	105,450	128,403	141,498
Gross value added at factor cost per head	£	3,631	4,295	5,772	6,715	7,275

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons. Satisfactory returns accounted for 58 per cent of employment within the industry.

TABLE 2

Capital expenditure, 1973–1977 All United Kingdom establishments classified to the industry (a)(b)

	H							£ thousand
To access on the Character of Alberta	1973	1974		1975	1976		1977	16 (8)8
Land and buildings			200	1981	(3)	ri caract		(2)
New building work	1,668	2,015		1,364	760		2,241	
Land and existing buildings								,
Acquisitions	43	1,365		150	1,658		710	
Disposals	57	38		303	24		64	
vehicles								
Acquisitions	667	1,068		1,209	1,340		2,099	
Disposals	285	340		441	497		949	
Plant and machinery								
Acquisitions	3,292	4,820		4,549	5,421		7,323	
Disposals	59	850		119	298		515	
Total net capital expenditure	5,270	8,041		6,408	8,359		10,844	

Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons.

TABLE 3

Stocks and work in progress, 1973—1977

All United Kingdom establishments classified to the industry (a)

	1973	1974	1975	1976		1977
	1.4.7 (0) (0.00)	13.9355	Increase	bs 7,277 Gro.	r scara r	Value at end of year
Materials, stores and fuel	8,609	7,277	9,661	32,607	-10,322	79,749
Work in progress	4,084	7,951	5,496	8,515	2,622	40,900
Goods on hand for sale	4,415	1,712	4,801	4,648	38,895	71,706
Total	17,108	16,940	19,958	45,770	31,195	192,354

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons.

<sup>(</sup>b) Increase from 1973—1974 is largely attributable to improved estimates of the number of establishments with fewer than 20 employees — see notes on page (iii).

<sup>(</sup>c) Included in sales of goods produced.

<sup>(</sup>d) Details of manufacturers' quarterly sales of principal products are available only for MLH 396.2 published as Business Monitor PQ396.2.

<sup>(</sup>e) Average number employed, including full and part-time employees (see table 7) and working proprietors.

<sup>(</sup>f) For 1973—1975 rents of industrial and commercial buildings were not recorded separately, but included in hire of vehicles, plant and machinery.

<sup>(</sup>b) Capital expenditure in respect of manufacturing establishments where production had not commenced before the end of the year, is included.

Analysis of establishments by size, 1977 All United Kingdom establishments classified to the industry (a)

Size group (b)	Estab- lish- ments	Enter- prises (c)	Employme	nt		Wages and sa	laries (f)		tine 14
			Total (d)	Opera- tives	Others (e)	Operatives		Others (e)	
			(4)	11703	(0)	Total	per head	Total	per head
	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£
1-10	757	751	3,315)						
11-19	107	107	1,542)	6,850	2,949	18,005	2,628	10,335	3,505
20–49	118	117	3,537)	0,000	2,040	10,000	2,020	10,000	0,000
50-99	37	36	2,348)						
100-199	9	9	1,172	830	340	2,437	2,937	1,380	4,060
200–399	5	5	1,201	730	471	2,129	2,916	1,597	3,391
400 and over	5	4	6,334	3,933	2,401	14,233	3,619	9,322	3,883

Total	1,038	1,010	19,449	12,343	6,161	36,804	2,982	22,635	3,674

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons.

Total sales and work done (g)	Gross output	Net output	age of (contract)	Gross,value added at factor cost	Parce vege - (d) deva con most	Net capital expenditure (h)	Total stocks and work in progress at end of year
he testale Striev	Sing Sing ofast	Total	per head	Total	per head		
£ thousand	£ thousand	£ thousand	£ Sections	£ thousand	f (1000 km) (100	£ thousand	£ thousand
234,584	243,717	86,667	8,068	(j)	(j)	4,866	63,632
51,990	54,115	11,415	9,740	71,013(j)	5,961(j)	1,153	12,674
24,548	25,450	13,223	11,010	9,996	8,323	376	6,611
323,263	352,621	67,413	10,643	60,489	9,550	4,448	109,437

634,385	675,902	178,719	9,189	141,498	7,275	10,844	192,354

<sup>(</sup>f) The cost of employers' contributions to national insurance, pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £11,823 thousand. The remuneration of outworkers on returns received was £911 thousand.

b) Average number employed, including full and part-time employees (see table 7) and working proprietors.

<sup>(</sup>c) The sum of the figures for the size groups may exceed the total for the industry because some enterprises control establishments in more than one size group.

<sup>(</sup>d) Including working proprietors.

<sup>(</sup>e) Administrative, technical and clerical employees.

<sup>(</sup>g) Sales of goods produced, capital goods manufactured, buildings constructed by establishments for their own use, work done, industrial and non-industrial services rendered and merchanted goods.

<sup>(</sup>h) New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.

<sup>(</sup>j) Gross value added data relate to establishments employing 1–199.

Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1977 All United Kingdom establishments classified to the industry (a)

Area	Total employment (b)		Net capital expenditure (	Net capital expenditure (c)		Gross value added at factor cost (d)	factor cos by establis 80 per cer	Gross value added at factor cost returned by establishments with 80 per cent or more	
							of their er in the regi proportio gross valu- factor cos	n of total e added at	
							region	A	
And Constitution in	Thousands	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	£ thousand	d percentag	e	
Standard regions of									
England									
North	0.1	0.4	21	0.2	615	423	-		
Yorkshire and Humberside	1.7	9.0	1,124	10.4	18,056	15,831	75.7		
East Midlands	881.1_	30199 <u>8</u> 1,375	PRESENTATION OF THE PROPERTY O	<u>O</u> BARAT	10,423	_ *	64,88 <u>1</u> 8		
East Anglia	0.1	0.3	10	0.1	366	231	47.7		
South East	8.0	41.3	5,351	49.4	77,883	61,945	50.1		
South West	0.6	3.3	813	7.5	7,782	6,894	3.7		
West Midlands	6.6	33.8	2,663	24.6	51,046	38,587	32.8		
North West	0.4	1.9	439	4.0	4,550	3,855	38.0		
England	17.5	90.1	10,429	96.2	160,523	127,921			
Wales	*	*	*	*	*	*	*		
Scotland	0.4	1,8	110	1.0	2,768	1,893	0.6		
Great Britain	*	*	*	*	*	*			
Northern Ireland	*	*	*	*	*	*	*		
United Kingdom	19.4	100.0	10,844	100.0	178,719	141,498			

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons.

(b) Average number employed, including full and part-time employees (see table 7) and working proprietors.

(c) New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.

Where a census return covered addresses in two or more regions, an estimate of the net output attributable to each address was made by assuming that net output was proportionate to employment. An estimate for each region was obtained by aggregating estimates of net output for addresses located in that region. Gross value added at factor cost is treated similarly.

TABLE 6

Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 20 or more persons, 1977

Accour	nting year ended	Percentage of total	I returns received	Percentage of	Percentage of total number employed		
	SALES SALES	per cent	Terror acceptable	per cent	strature to and toget space to a		
1977	April (a)	7.1		5.1			
	May	2.0		0.5			
	June	4.1		1.2			
	July	1.0		0.3			
	August	0.0		0.0			
	September	6.1		4.9			
	October	0.0		0.0			
	November	1.0		0.5			
	December	43.9		37.6			
1978	January	6.1		3.2			
	February	7.1		1.9			
	March (b)	21.4		44.9			

(a) From 6th April.

(b) Including returns made for twelve-month period ended 1st to 5th April 1978.

# TABLE 7

Percentage analysis of employees, by full and part-time employment and sex, 1977(a)

Sex	Full-time	Part-time	All employees
	per cent	per cent	per cent +
Male	62	2	64
Female	27	9	36

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at mid-June, 1976 because 1977 information is not yet available.

PA396

Operating ratios, 1977 All United Kingdom establishments classified to the industry (a)

Augustine promise to so		Unit			1977	
Gross output per head				Anno 10 £	34,753	
Net output per head				£		9,189
Gross value added per head				£		7,275
Gross value added as a percentage of g	ross output			%		21
Ratio of gross output to stocks						3.5
Magazia						
Wages and salaries as a percentage of g	ross value added			%		42
Reproduced						
Ratio of operatives to administrative, 1	technical and clerica	al				
employees						2.0
				4.8		visund
Wages and salaries per operative				£		2,982
Wages and salaries per administrative, employee	technical and clerica	al		£		3,674
Net capital expenditure per head				£		558
Net capital expenditure as a percentage of gross value added				%		8

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments employing fewer than 20 persons.

Notes

These notes give the main information needed for interpreting the figures in the industry Business Monitors: more detailed information about the census is given in a separate Business Monitor - PA 1001 (Introductory Notes) of the Report on the Census of Production, 1977.

## GENERAL INFORMATION

# Changes made for 1977

The Census for 1977 is in line with similar inquiries being conducted in other member countries of the European Economic Communities. There was a small number of changes in the scope of the industry reports compared with 1976.

For the first time in the industry monitors a table has been included on operating ratios, calculated from census measures of output, investment, manpower and labour costs.

Specific changes are explained in the introductions to the industry reports or by footnotes to the tables.

Suppression of information relating to individual undertakings Section 9(5)(b) of the Statistics of Trade Act 1947 states - "The following provisions shall have effect with respect to any report, summary or other communication to the public of information obtained under the foregoing provisions of this Act -

in compiling any such report, summary or communication the competent authority shall so arrange it as to prevent any particulars published therein from being identified as being particulars relating to any individual person or undertaking except with the previous consent in writing of that person or the person carrying on that undertaking, as the case may be; but this provision shall not prevent the disclosure of the total quantity or value of any articles produced, sold or delivered; so, however, that before disclosing any such total the competent authority shall have regard to any representations made to them by any person who alleges that the disclosure thereof would enable particulars relating to him or to an undertaking carried on by him to be deduced from the total disclosed".

fa figure involved disclosure the contributor concerned was sometimes asked to give permission for its publication. In the majority of cases permission was given. When it was refused and where contributors were not approached the figure has been suppressed, either by combining it with other figures, or as in the regional tables, by omitting the figure altogether.

#### Symbols used

The following symbols are used throughout the PA series of Business Monitors:

#### .. not available

- nil or less than half the final digit shown

figures cannot be shown owing to the risk of disclosing information about individual enterprises.

R revised

#### Rounding of figures

Figures in the tables have, where necessary, been rounded to the nearest final digit. Where figures have been so rounded, the sum of the constituent items may not always agree exactly with the total shown.

#### Industrial classification

The United Kingdom Standard Industrial Classification (SIC) was first issued in 1948 and was subsequently revised in 1958 and 1968. It exists to promote uniformity and comparability in the official statistics of the United Kingdom. The general principles followed are those of the International Standard Industrial Classification of all Economic Activities of the United Nations Statistical Office but the United Kingdom SIC reflects the Organisation and structure of industry and trade as it exists in the United Kingdom. The SIC is a classification by activity and is not a commodity classification. However, an index of all commodity headings for which sales data are provided in the Quarterly Business Monitors, is published in Business Monitor PQ 1000.

### tatistical units

The statistical unit for the purpose of the Census is the establishment which is defined in the SIC as the smallest unit which can provide the information normally required for an economic census, for

example, employment, expenses, turnover, capital formation. Usually the principal activities carried on in an establishment fall within a single heading of the classification (eg steel making or sugar refining). Typically the establishment embraces all the activities carried on at a single address eg a mine or a factory, including those which are ancillary to the principal activities. Frequently distinct activities characteristic of different industries are carried on at one address, but normally these are not classified separately and the whole establishment is classified according to the main activity. If, however, the required range of data can be provided for each activity, each is taken to constitute a separate establishment. Sometimes activities which are conducted as a single business are carried on at a number of addresses. Where this is so, businesses are asked to provide the full range of separate information in respect of each address, whether or not the activities are different. Their activities may, however, be integrated to such an extent that they constitute a single establishment. In the latter case the establishment is defined to cover the combined activities at these addresses (termed local units). Separate figures are obtained of employment and net capital expenditure at each unit in order to compile regional tables. Efforts are made by the Business Statistics Office (BSO) to ensure, by negotiating with respondents, that the return from an establishment does not cover local units or addresses in more than one of the countries of the United Kingdom.

Further information about the statistical unit appeared in an article "The statistical unit in business inquiries" in Statistical News No 13 May 1971.

Establishments are asked to exclude from their returns particulars relating to any department not engaged in production eg merchanting, transport, warehousing, for which they keep a separate set of accounts. Transfers of goods produced to such departments are treated as sales and respondents are asked to value them as far as possible as if sold to an independent purchaser. Where separate accounts are not kept they are asked to include details of all these activities in their return.

Particulars relating to head offices mainly engaged in the administration of the production units within the scope of the census were included. Where more than one return was made the information in respect of the head office was apportioned among them.

For certain purposes in the annual censuses of production (especially the enterprise analyses of Business Monitor PA 1002) related establishments are combined. For these purposes an enterprise group may be defined as a business consisting of either a single establishment or two or more establishments under common ownership or control. Bringing together establishments into enterprise groups is also necessary for the purpose of ensuring that there will be no disclosure of the activities of any one enterprise group. Information about the relationship of establishments, the changing structure of groups of companies and about common ownership links is obtained from many sources, including the Stock Exchange Year Book, company reports, press reports and information supplied by individual establishments.

#### THE REGISTER

The register permits a questionnaire to be sent direct to the reporting establishment on which the latter can include information relating to all the manufacturing (or local) units which it comprises. The inquiries provide a major source of information for keeping the register continuously up-to-date and act as a check on its detail and structure. For the establishments on the register making returns to the quarterly inquiries, the industrial classification is derived from an analysis of their sales of commodities and is reviewed annually. Employment data are entered on the register from returns to the annual census of production. In cases where an establishment does not make a return to these inquiries the employment data are based on information provided by the Department of Employment from the annual censuses of employment. New additions to the register are obtained from various sources including Companies Registration Office and the Department of Employment. The 1973 Finance Act allows HM Customs and Excise to pass to the BSO lists of businesses registered for VAT. Information from all these sources is used to improve the register, and where necessary, details are sought directly from new businesses. Units which cease to trade are removed from the live register.

Increasing use of the information obtained from the Department of Employment, HM Customs and Excise and BSO inquiries has led to improvements on the register, which in turn enabled the BSO to produce better estimates, particularly of numbers of smaller establishments and enterprises.

#### Coverage

A return was required in the 1977 Census from each establishment with 20 or more employees. Each establishment is classified to an industry, as defined in the SIC, whose principal products form the major part of the establishment's sales.

#### Regions

The regions defined in Table 5 take account of the boundary changes arising out of the Local Government Act 1972 and the Local Government Act (Scotland) 1973. These changes came into effect in April 1974 in England and Wales and May 1975 in Scotland.

# TERMS USED IN THE CENSUS REPORT

#### Average number employed

Establishments were required to state the number of persons on the payroll on average during the year of return, whether full-time or part-time employees. Separate figures were required for:

(a) administrative, technical and clerical employees

(b) all other employees (operatives)

Averages could be calculated from the figures relating to the last week of each calendar month. Establishments were also required to state the number of working proprietors where appropriate and these are included in total employment figures. Outworkers (ie persons employed by establishments who worked in their own homes etc on materials supplied by the establishment) are excluded. The figures include persons engaged on merchanting or factoring and canteen workers where particulars in respect of these activities could not be excluded from the return.

#### Working proprietors

These include all persons regarded as "self-employed" for national insurance purposes and members of their families who worked in the business without receiving a wage or salary; but such persons who worked less than half the normal number of working hours are excluded. Directors working in the business but not in receipt of a definite wage, salary or commission are included under this heading: directors paid by fee only are not included.

#### Employees

Administrative, technical and clerical employees include directors in receipt of a definite wage, salary or commission, managers and works foremen; research and design employees (other than operatives); draughtsmen, editorial staff, advertising staff, travellers and all office employees.

Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They include operatives employed in power stations, transport (including roundsmen), warehouses, stores, shops and canteens, inspectors, maintenance workers and cleaners. Operatives engaged in outside work of erecting, fitting etc are also included, but outworkers are excluded.

# Capital expenditure

Capital expenditure during the year in respect of manufacturing units where production had not started before the end of the year is included. Establishments were asked not to deduct from the value of capital expenditure amounts received or expected to be received in grants or allowances from the Government or any statutory body or local authority. Establishments with 100 or more employees were asked to include a total net capital expenditure figure for each calendar year.

#### (a) New building work

This represents the cost incurred during the year of new building and other constructional work to be used in connection with the business covered by the return. The value is that charged to capital account during the year of return; it includes expenditure on new buildings and on the extension or reconstruction of old buildings, the value of works of a capital nature carried out by the establishment's own staff and the cost of any newly constructed buildings purchased. Figures shown include legal charges, stamp duties, agents' commissions, etc.

#### (b) Land and existing buildings

The items shown are the capital cost of freeholds purchased and the capital cost or premium payable for leaseholds acquired (excluding the value of assets acquired in taking over an existing business), and the amounts receivable for freeholds or leaseholds disposed of. The value is that charged to capital account during the year of return.

#### (c) Plant, machinery and vehicles

The items shown are the value of plant and machinery and of vehicles acquired, both new and second-hand, and the amount received for items disposed of during the year. The value of plant and machinery acquired includes plant, etc which firms produced for their own use in connection with the business covered by the return. The value of plant, etc acquired is the expenditure charged to capital account during the year of return less any discounts received, but including the cost of transport and installation. Deductible value added tax is excluded but non-deductible value added tax on motor cars acquired is included. No deduction is made for depreciation, amortization or obsolescence. The proceeds of items disposed of during the year exclude amounts written-off for items scrapped.

#### Cost of industrial services

This includes amounts payable to other firms for work done on materials supplied by the establishment, payments for repairs and maintenance (including those in respect of rented buildings) and amounts paid to other firms for contracts which have been sublet. Payments to outworkers are excluded.

#### Cost of non-industrial services

This includes rents of industrial and commercial buildings, hire of plant, machinery and vehicles (excluding vehicles hired with drivers), commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport (within the United Kingdom), advertising etc. Amounts payable on royalties for the right to use patents, trademarks, copyrights etc, manufacturing and quarrying rights and technical "know-how" are also included.

#### Gross output

In the calculation of gross output the value of total sales and work done is increased by the rise (or reduced by the fall) during the year in the value of work in progress and goods on hand for sale.

#### Net output

Net output, a customary census measure, is calculated by deducting from gross output the cost of purchases (reduced by the rise, or increased by the fall, during the year of stocks of materials etc) and the cost of industrial services received, and where applicable, duties etc.

#### Net output per head

The figures of net output per head are derived by dividing the net output by the average number of persons employed (full and part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical employees and working proprietors, but excluding outworkers.

# Gross value added at factor cost

Gross value added at factor cost is calculated by deducting from net output the cost of non-industrial services eg rent of buildings, hire of plant, machinery and vehicles (excluding vehicles hired with drivers), commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport (within the United Kingdom) and advertising, rates (excluding water rates) and the cost of licensing motor vehicles. This estimate of gross value added approaches more closely than census net output to the definition of net output or value added in national accounts statistics.

# Gross value added at factor cost per head

The figures of gross value added at factor cost per head are derived by dividing the gross value added by the average number of persons employed (full and part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical employees and working proprietors, but excluding out-

#### Purchase

Purchases include the cost of raw materials, components, semimanufactured goods and workshop materials; of replacement parts and consumable tools not charged to capital account; of packaging materials of all types; of stationery and printed matter; of fuel, electricity and water; of materials to be used by the establishment or given out to other establishments for the production of machinery or other capital items for the establishment's own use; of materials for use by the establishment when working on goods supplied by

austomers; and of food, etc for any canteen covered by the establishment's return. Transfers of goods to the establishment rom another department of the same firm not covered by the establishment's return are included at a cost corresponding to the stimated selling value recorded by the other department. Amounts payable to transport firms or credited to the firm's own transport lepartment for delivery of materials are excluded, as are all purchases of machinery and plant charged to capital account. purchases of goods for merchanting or factoring have been allected separately since 1973. The values shown exclude VAT. They include, in addition to the actual purchase price, the value f packaging material charged to the establishment. The value of returned goods or packaging material returned to suppliers and any trade discounts are excluded. Materials purchased duty-paid are included at their duty-paid value, less any drawback, rebate, etc. The cost of transport is included only if it is included with the purchase price in the firm's accounts. Imported goods are included at their full delivered cost. If in the firm's accounts the transport from docks or airport is not included in the cost of goods purchased. the cost is entered at cif plus duty (if applicable). Leasing, renting and hire purchase charges are excluded.

#### Sales of goods produced

Sales for the purposes of the annual censuses means deliveries on sale of goods made by establishments in the United Kingdom overed by the inquiry. Sales of goods made for these establishments y outworkers or by other establishments from materials given out them and sales of waste products are included. New building work and machinery or other capital items produced by establishments for hiring out or leasing are regarded as sales, the value included in the return being that adopted in the establishments' rapital asset accounts. Forward sales and canteen takings are excluded All sales in the period of the inquiry are included irrespective of when the goods were manufactured. Goods produced in one establishment and transferred either to ancillary departments not engaged in production for which there are separate accounts, or to another establishment of the same firm not covered by the return. are treated as sales by the producing establishment and valued as far as possible as if they had been sold to an independent purchaser. Goods transferred to wholesale or retail selling organisations, for which separate accounts are kept are valued on the same basis.

The value shown for sales in the "net selling value" defined as the amount (excluding VAT) charged to customers whether on an ex-works or delivered basis, after any trade discounts and agents' ommissions have been deducted. The cost of packing materials less allowance for returnable cases is included. In industries where products attract Excise Duty the value stated is usually inclusive of duty if sold duty-paid and exclusive of duty if sold in bond or exported.

# Receipts for work done and industrial services rendered

Figures for work done represent the amount charged for work carried out on materials supplied by a customer and include repair work. Within certain industries this heading covers a wide variety of activities, for example, within the food sector - butter packed on commission; within the textile industries - making up of garments, fur dressing and textile finishing; within printing and publishing - preparatory work on type-setting, block making and binding. Work done is also significant in the electrical machinery and heavy engineering industries, covering erection, installation and repair and jobbing work. Other activities within this heading include exploration work, research and development, glass cutting and dressing and planing of timber.

Industrial services rendered include repairs and maintenance, installation work, and technical research and studies for other organisations.

#### Capital goods produced for establishments' own use

This includes all work of a capital nature carried out during the year by the establishments' own staff for their own use.

# Non-industrial services rendered

This includes rents received for commercial and industrial buildings, amounts charged for hiring out plant, machinery and vehicles and other goods and amounts charged to other organisations for the provision of transport. It also includes amounts received for the right to use patents, trademarks, copyrights etc, manufacturing and quarrying rights and technical "know-how" and revenue from such staff facilities as canteens.

## Goods merchanted or factored

Merchanted goods are those (excluding canteen sales) sold without

having been subjected to any manufacturing process by the seller.

#### Stocks and work in progress

Values are given of stocks of goods on hand for sale and of materials, stores and fuel, at the end of the year of return and of the change during the year, including any stocks of goods held for merchanting or factoring. Work in progress is defined as materials which have been partially processed by the establishment but which are not usually sold or transferred to another establishment without further processing. The values include the cost of materials consumed and labour used, together with a margin of overhead costs and profits. Progress payments made to sub-contractors are excluded and progress payments received from other organisations are not deducted.

#### Wages and salaries

These are amounts paid during the year to operatives and to administrative, technical and clerical employees. Payments to working proprietors, whether called salaries or not, are excluded. The values shown include all overtime payments, bonuses, commissions and holiday pay, whether paid regularly or not, and no deduction is made for income tax, insurances, contributory pensions etc. The value of redundancy payments less any amounts reimbursed from Government sources is included. The value of any payments in kind, travelling expenses etc is excluded.

#### Remuneration paid to outworkers

The remuneration paid to outworkers (ie persons employed by the establishment who do their work in their own homes) is generally on a piece-work basis. Only amounts paid to outworkers whose names appear on the establishment's payroll are included. Amounts paid to outworkers by sub-contractors are excluded.

#### Employers' insurance and welfare contributions

This item includes employers' contributions to national insurance (and/or earnings related basic contributions under the Social Security Pensions Act, 1975) and commercial insurance premiums to provide pensions, superannuation or other retirement benefits, sickness benefits, personal accident benefits, disability or death benefits for employees or former employees or their dependants. Contributions to the running costs of canteens, social centres, children's and holiday homes, etc for employees, former employees and their dependants are also included.

#### Operating ratios

The operating ratios shown were obtained by dividing the estimate of the industry total for the quantity shown in the numerator by the corresponding estimate for the quantity shown in the denominator. These estimates cover all establishments classified to the industry, including exempted establishments and non-respondents. Within an industry, it is possible to compare ratios for an individual firm with the ratios shown for the relevant industry. However, it is important to bear in mind that various factors may affect the results - for example, differences in definitions, treatment of depreciation (which is not identified in the census data) and varying practise with regard to stock valuation, may affect comparability in some respects.

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