**Business Statistics Office** 

# **Business Monitor**

Report on the Census of Production

Electrical appliances primarily for domestic use



1977

) 2/42(mn 25)



# **Special Note for Purchasers**

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).

The Census of Production (PA) reports are available on standing order (details on application to Her Majesty's Stationery Office, P.O. Box 569, London SE1 9NH. Telephone 01-928 6977), although they are not included in the global subscription arrangements for the Business Monitor series.

#### **Government Statistical Service**

A service of statistical information and advice is provided to the Government by specialist staffs employed in the statistics division of individual Departments. Statistics are made generally available through their publications and further information and advice on them can be obtained from the Departments concerned.

Enquiries:
Business Statistics Office
Newport, Gwent
NPT 1XG
Newport 56111 (STD code 0633) ext 2455
Telex 497121
Answer Back BSONPT G

# **PA368**

# **Business Monitor**

A publication of the Government Statistical Service

Report on the Census of Production 1977

Electrical appliances primarily for domestic use

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

**Biscuits** 

Sugar

Stone and slate quarrying and mining

Miscellaneous mining and quarrying

Bacon curing, meat and fish products

Cocoa, chocolate and sugar confectionery

Petroleum and natural gas

Milk and milk products

PA229.1 Margarine PA229.2 Starch and miscellaneous foods

Brewing and malting

PA239.2 British wines, cider and perry

Mineral oil refining

Toilet preparations

Soap and detergents

Dyestuffs and pigments

PA279.2 Formulated adhesives, gelatine, etc.

PA279.6 Surgical bandages, etc. PA279.7 Photographic chemical materials

Iron and steel (general)

Miscellaneous base metals

Metal-working machine tools

Aluminium and aluminium alloys

Copper, brass and other copper alloys

Agricultural machinery (except tractors)

Compressors and fluid power equipment

PA339.1 Mining machinery
PA339.2 Printing, bookbinding and paper goods machinery
PA339.3 Refrigerating machinery, space-heating,

ventilating and air-conditioning equipment

Textile machinery and accessories

Mechanical handling equipment

PA339.5 Scales and weighing machinery and portable

synthetic rubber

PA279.3 Explosives and fireworks PA279.4 Formulated pesticides, etc.

Fertilizers

Steel tubes

Pumps

Iron castings, etc.

Industrial engines

Office machinery

power tools

Polishes

PA279.5 Printing ink

PA239.1 Spirit distilling and compounding

Lubricating oils and greases

Soft drinks

Tobacco

PA271.1 Inorganic chemicals

PA271.3 Miscellaneous chemicals

PA271.2 Organic chemicals

Grain milling
Bread and flour confectionery

Fruit and vegetable products
Animal and poultry foods

Vegetable and animal oils and fats

Coke ovens and manufactured fuel

Pharmaceutical chemicals and preparations

Synthetic resins and plastics materials and

Chalk, clay, sand and gravel extraction

PA1001

PA103

PA109

PA211

PA212

PA213

PA214

PA215

PA216

PA217

PA218

PA219

PA221

PA232

PA240

PA261

PA262

PA263

PA272 PA273

PA275

PA276

PA277

PA278

PA312

PA313

PA321

PA322

PA323

PA331

PA3331

PA333.3

PA334

PA335

PA336

**PA338** 

PA339.7

PA333.2 Valves

PA279.1

ectrical	equipment	for moto	r vehicles,	cycles

PA369.1 Ele and aircraft

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

PA370 Shipbuilding and marine engineering PA380 Wheeled tractor manufacturing Motor vehicle manufacturing PA381.2 Trailers, caravans and freight containers

Motor cycle, tricycle and pedal cycle manufacturing Aerospace equipment manufacturing and repairing PA382 PA383 Locomotives, railway track equipment, railway carriages. PA384 wagons and trams

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

PA392 Cutlery, spoons, forks and plated tableware, etc. PA393

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

PA396 Jewellery and precious metals Metal furniture PA399.1

PA399.5 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

PA422.2 Canvas goods and sacks and other made-up textiles PA423 Textile finishing

PA429.1

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 PA444 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. Refractory goods PA461.2 Building bricks and non-refractory goods PA462 Pottery

PA463 Glass PA464 Cement

Construction and earth-moving equipment PA469.1 Abrasives PA469.2 Miscellaneous building materials and mineral products PA471 Timber

PA472 Furniture and upholstery Bedding, etc. Shop and office fitting PA473 PA474

PA475 Wooden containers and baskets PA479 Miscellaneous wood and cork manufactures

PA481 Paper and board

Food and drink processing machinery and PA482.1 Cardboard boxes, cartons and fibre-board packing cases packaging and bottling machinery Miscellaneous (non-electrical) machinery PA482.2 Packaging products of paper and associated materials PA483 Manufactured stationery Industrial (including process) plant and steelwork PA484.1 Wallcoverings

PA341 PA342 Ordnance and small arms PA484.2 Miscellaneous manufactures of paper and board PA349.1 Ball, roller, plain and other bearings PA349.2 Precision chains and other mechanical engineering PA485 PA489 Printing, publishing of newspapers and periodicals General printing and publishing

PA351 Photographic and document copying equipment PA491 PA352 Watches and clocks PA492 Linoleum, plastics floor-covering, leathercloth, etc. PA353 Surgical instruments and appliances PA493 Brushes and brooms
Toys, games and children's carriages PA354 Scientific and industrial instruments and systems PA494.1

PA361 Electrical machinery PA494.3 Sports equipment PA362 Insulated wires and cables PA495 Miscellaneous stationers' goods PA363 Telegraph and telephone apparatus and

PA496 Plastics products PA499. Musical instruments PA364 Radio and electronic components PA499.2 Miscellaneous manufacturing industries Gramophone records and tape recordings PA500 Construction

PA365.2 Broadcast receiving and sound reproducing Gas PA601 equipment PA602 Electricity PA366 Electronic computers Water supply PA603

**PA367** Radio, radar and electronic capital goods PA1002 Summary tables **PA368** Electrical appliances primarily for domestic use

PA368 ELECTRICAL APPLIANCES PRIMARILY FOR DOMESTIC USE

The information in this report relates to establishments classified to the Electrical appliances primarily for domestic use industry, minimum list neading 368 in the Standard Industrial Classification (revised 1968). The activities of the industry include:—

Manufacturing electric vacuum cleaners, washing machines, refrigerators (including non-electric refrigerators), deep freeze units, food mixers, hair clippers and dry shavers, cookers, radiators, toasters, irons and other domestic type electrical appliances. The manufacture of refrigerating machinery and commercial refrigerating equipment is excluded.

> 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	Title				Page
No					
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 at factor cost, 1977	capital expendit	ure, net output and gr	oss value added	6
6	Percentage analysis of twelve-month perioding dom establishments employing 20 or			nited	7
7	Percentage analysis of employees, by full a	and part-time em	ployment and sex, 19	77	7
8	Operating ratios, 1977				8

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

	Unit	1973	1974	1975	1976	1977
Enterprises	Number	222	258	255	259	257
Establishments	rggs "kolidole en	248	287	286	286	286
Sales of goods produced	£ thousand	426,188	462,661	563,143	635,474	706,950
Receipts for work done and industrial services rendered	tauri of feith	(b)	(b)	(b)	8,019	15,822
Capital goods produced for establishments' own use	"	713	753	836	835	751
Non-industrial services rendered	"	1,677	1,909	2,322	3,184	7,029
Goods merchanted or factored		25,577	35,404	41,891	63,671	68,751
Total sales and work done (c)		454,155	500,728	608,193	711,183	799,303
ncrease during the year, work in progress and goods on hand for sale	"	6,396	19,226	16,579	-2,703	31,987
Gross output		460,552	519,953	624,772	708,479	831,290
Purchases of materials for use in production, and packaging and fuel	"	236,171	275,480	305,826	361,631	454,156
Purchases of goods for merchanting or actoring	"	22,637	32,697	33,313	52,809	59,189
ncrease during the year, stocks of materials, stores and fuel	"	14,620	7,893	-3,541	7,650	7,821
Cost of industrial services received	"	11,610	13,927	12,319	13,592	19,020
Net output	"	204,753	205,743	269,773	288,098	306,746
Fotal employment (d)	Thousands	66.1	70.4	64.2	59.1	59.8
Net output per head	£	3,097	2,922	4,200	4,876	5,131
Payments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	3,433	4,759	5,145	2,186	2,797
Rents of industrial and commercial buildings	.,	(e)	(e)	(e)	3,670	3,918
Commercial insurance premiums	"	1,734	2,091	2,408	3,031	3,442
Bank charges		155	186	233	344	269
Other non-industrial services		15,541	14,717	21,584	28,191	37,847
_icensing of motor vehicles	,,	216	. 342	397	429	559
Rates, excluding water rates	,	2,526	3,349	4,712	5,295	5,574
Gross value added at factor cost	"	181,147	180,300	235,295	244,952	252,341
Gross value added at factor cost per head	£	2,739	2,561	3,663	4,146	4,221

Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons. Satisfactory returns accounted for 88 per cent of employment within the industry.

TABLE 2

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

		one was a region of the control of			£ thousand
The state of the s	1973	1974	1975	1976	1977
and and buildings				45)	Alberta (c) (c)
New building work	2,298	3,528	3,201	2,084	3,130
Land and existing buildings					
Acquisitions	278	996	857	660	1,301
Disposals	170	2,294	120	1,223	509
/ehicles					
Acquisitions	1,714	2,675	2,875	3,033	4,657
Disposals	622	692	606	502	913
lant and machinery					
Acquisitions	11,163	14,262	14,133	13,993	20,005
Disposals	448	493	394	453	386
Total net capital expenditure	14,214	17,981	19,946	17,592	27,284

<sup>(</sup>a) 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)

An office Kingdom establish						£ thousand
	1973	1974	1975	1976		1977
	201 206 74 201 OC	5,7200,07	Increase	187,833	125, 27,772, 0.95	Value at end of year
	Lungrasiantes costa at brillion	Shell sachon in a		Control of the States	rated street and randomist	September 1
Materials, stores and fuel	14,620	7,893	-3,541	7,650	7,821	67,993
Work in progress	6,190	7,779	-2,956	6,122	4,178	37,955
Goods on hand for sale	206	11,446	19,536	-8,825	27,809	72,382
Total	21,016	27,119	13,039	4,946	39,809	178,330

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

Included in sales of goods produced.

Details of manufacturers' quarterly sales of principal products are published regularly in Business Monitor PQ 368.

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

For 1973—1975 rents of industrial and commercial buildings were not recorded separately, but included in hire of vehicles, plant and machinery.

Capital expenditure in respect of manufacturing establishments where production had not commenced before the end of the year, is

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

Size group (b)	Estab- lish- ments	Enter- prises (c)	Employmen	Employment			Wages and salaries (f)			
			Total (d)	Opera- tives	Others (e)	Operatives		Others (e)	Others (e)	
			(a)	lives		Total	per head	Total	per head	
The second second second	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£	
1-10	120	119	572)							
11–19	40	38	560)	3,106	1,068	7,363	2,370	3,858	2.010	
20-49	39	39	1,213)	3,100	1,000	7,363	2,370	3,000	3,613	
50-99	26	26	1,975)							
100-199	18	18	2,721	1,898	820	4,366	2,301	2,948	3,595	
200-299	7	6	1,702	1,337	364	3,166	2,368	1,316	3,616	
300-399	5	5	1,717	1,251	466	3,182	2,544	1,613	3,461	
400-499	5	5	2,408	1,723	685	4,997	2,900	2,219	3,240	
500-749	8	7	5,026	3,643	1,383	9,997	2,744	4,789	3,462	
750–999	7	6	6,092	4,270	1,822	11,499	2,693	5,634	3,092	
,000–1,999	4	4	6,772	5,387	1,380	15,572	2,891	4,395	3,185	
2,000 and over	7	5	29,026	20,415	8,611	60,105	2,944	33,632	3,906	

Total	286	257	59,784	43,030	16,599	120,248	2,795	60,404	3,639

<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)		Net output	Acade of Surveyor	Gross value added at factor cost	# 1 mm   1 mm	Net capital expenditure (h)	Total stocks and work in progress at end of year
		Total -	per head	Total	per head		
£ thousand	£ thousand	£ thousand	£	£ thousand	£	£ thousand	£ thousand
I (IIIoooon)							
52,208	53,376	21,954	5,082	(j)	(j)	1,201	9,860
38,963	39,992	17,759	6,527	34,820(j)	4,945(j)	871	7,588
22,982	23,281	9,208	5,410	7,693	4,520	449	4,153
18,915	19,406	8,367	4,873	6,332	3,688	536	3,373
32,586	33,995	13,449	5,585	11,310	4,697	685	8,525
65,171	67,151	23,749	4,725	19,966	3,972	1,866	15,406
82,008	83,871	31,886	5,234	26,221	4,304	1,438	13,946
91,084	93,497	30,470	4,499	26,802	3,958	1,953	19,357
395,387	416,722	149,904	5,164	119,197	4,107	18,286	96,122

799,303	831,290	306,746	5,131	252,341	4,221	27,284	178,330

The cost of employers' contributions to national insurance, pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £29,514 thousand. The remuneration of outworkers on returns received was £141 thousand.

<sup>(</sup>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.

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	(c)	Net output (d)	Gross value added at factor cost (d)	by estab 80 per co	alue added at ost returned olishments with ent or more employment	
							proporti gross val	in the region as a proportion of total gross value added at factor cost in the region	
	Thousands	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	£ thousand	percenta	age	
Standard regions of England									
North	*		*	*	*	*	*		
Yorkshire and Humberside	2.5	4.2	2,075	7.6	13,092	10,829	45.2		
East Midlands	0.5	0.8	103	0.4	2,279	1,972	52.9		
East Anglia	5.7	9.5	3,842	14.1	23,673	18,535	52.7		
South East	19.6	32.7	9,907	36.3	117,457	96,610	70.7		
South West	1.4	2.4	340	1.2	8,478	6,787	84.0		
West Midlands	8.4	14.0	1,962	7.2	48,063	41,013	89.8		
North West	4.2	7.0	947	3.5	18,233	14,497	73.5	0.860	
England	*	*	****	*	*orvi	*	ea,see,		
Wales	7.4	12.4	3,553	13.0	30,781	24,923	11.2		
Scotland	4.7	7.8	2,121	7.8	22,527	19,043	2.7		
Great Britain	*	*	*	*	*	* /	/		
Northern Ireland	*		*	*		*	*		
United Kingdom	59.8	100.0	27,284	100.0	306,746	252,341	/		

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

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

Accoun	ting year ended	Percentage of total returns received	Percentage of total number employed
_	200.5	per cent	per cent
1977	April (a)	1.2	0.3
	May	1.2	0.1
	June	3.7	0.3
	July	2.4	0.3
	August	0.0	0.0
	September	6.1	2.1
	October	2.4	0.4
	November	1.2	0.0
	December	48.8	57.0
1978	January	2.4	5.1
	February	2.4	0.6
	March (b)	28.0	33.8

(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	64	2	66
Female	28	6	34

Source: Department of Employment

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

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

		The second acquires festor to oppose Unit			1977		
Gross output per head				£		13,905	
Net output per head				£		5,131	
Gross value added per head				£		4,221	
Gross value added as a percentage of gross	output			%		30	
	0.0			0.0		00	
Ratio of gross output to stocks						4.7	
Wages and salaries as a percentage of gross value added				%		72	
Ratio of operatives to administrative, tech employees	nical and clerical					2.6	
Nages and salaries per operative				£		2,795	
Nages and salaries per administrative, techi employee	nical and clerical			£		3,639	
Net capital expenditure per head				£		456	
Net capital expenditure as a percentage of	gross value added	ASET UNDA		%		11	

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

Produced in Wales by Her Majesty's Stationery Office Reprographic Unit, Cardiff Dd.597332 K6 Cdf 276 1/80

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 onducted in other member countries of the European Economic ammunities. There was a small number of changes in the scope f the industry reports compared with 1976.

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

necific changes are explained in the introductions to the industry enorts or by footnotes to the tables.

uppression of information relating to individual undertakings ection 9(5)(b) of the Statistics of Trade Act 1947 states -The following provisions shall have effect with respect to any eport, summary or other communication to the public of ormation 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".

a figure involved disclosure the contributor concerned was metimes asked to give permission for its publication. In the ajority 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 egional tables, by omitting the figure altogether.

The following symbols are used throughout the PA series of isiness 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.

### revised

#### Rounding of figures

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

#### ndustrial classification

The United Kingdom Standard Industrial Classification (SIC) was irst 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 ollowed 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 ganisation and structure of industry and trade as it exists in the Jnited Kingdom. The SIC is a classification by activity and is ot a commodity classification. However, an index of all commodity leadings for which sales data are provided in the Quarterly Business Monitors, is published in Business Monitor PQ 1000.

## tatistical units

he statistical unit for the purpose of the Census is the establishment which is defined in the SIC as the smallest unit which can provide he 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.

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:

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 plan 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 discount 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 writtened 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

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 etcl 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 outworkers.

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

stomers; and of food, etc for any canteen covered by the ustablishment's return. Transfers of goods to the establishment om another department of the same firm not covered by the stablishment's return are included at a cost corresponding to the \*imated selling value recorded by the other department. Amounts hyable to transport firms or credited to the firm's own transport againment for delivery of materials are excluded, as are all rchases of machinery and plant charged to capital account. urchases of goods for merchanting or factoring have been lected separately since 1973. The values shown exclude VAT. hey include, in addition to the actual purchase price, the value of packaging material charged to the establishment. The value of urned goods or packaging material returned to suppliers and any rade discounts are excluded. Materials purchased duty-paid are cluded at their duty-paid value, less any drawback, rebate, etc. the cost of transport is included only if it is included with the urchase price in the firm's accounts. Imported goods are included their full delivered cost. If in the firm's accounts the transport omdocks or airport is not included in the cost of goods purchased, the cost is entered at cif plus duty (if applicable). Leasing, nting and hire purchase charges are excluded.

### Sales of goods produced

Sales for the purposes of the annual censuses means deliveries on ale of goods made by establishments in the United Kingdom overed by the inquiry. Sales of goods made for these establishments by 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 ncluded in the return being that adopted in the establishments' capital 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 stablishment and transferred either to ancillary departments not engaged in production for which there are separate accounts, or to nother establishment of the same firm not covered by the return, are treated as sales by the producing establishment and valued as er as possible as if they had been sold to an independent purchaser. oods transferred to wholesale or retail selling organisations, for hich 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' missions have been deducted. The cost of packing materials ess 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

### Receipts for work done and industrial services rendered

Figures for work done represent the amount charged for work arried 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 ommission; 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

ndustrial services rendered include repairs and maintenance, installation work, and technical research and studies for other rganisations

#### 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

#### 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 nonrespondents. 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.

# © Crown copyright 1980

# Her Majesty's Stationery Office

Government Bookshops

49 High Holborn, London WC1¼6HB 13a Castle Street, Edinburgh EH2 3AR 41 The Hayes, Cardiff CF1 1JW Brazennose Street, Manchester M60 8AS Southey House, Wine Street, Bristol BS1 2BQ 258 Broad Street, Birmingham B1 2HE 80 Chichester Street, Belfast BT1 4JY

Government publications are also available through booksellers

Extracts from this publication may be reproduced provided the source is acknowledged. Proposals for complete reproduction should be addressed to the Librarian, Business Statistics Office, Newport, Gwent NPT 1XG