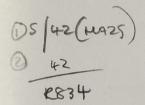
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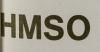


**Business Statistics Office** 

# **Business Monitor**

### Report on the Census of Production

Bolts, nuts, screws, rivets, etc.



publication of the Government Statistical Service

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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. Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) or O (occasional) 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.

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# **PA393**

### **Business Monitor** A publication of the Government Statistical Service

# **Report** on the 1978

# rivets, etc.

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** 

**Census of Production** 

Bolts, nuts, screws,

### List of Industry Reports, etc.

PA1001	Introductory notes
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PA213	Biscuits
PA214	Bacon curing, meat and fish products
PA215	Milk and milk products
PA216	Sugar
PA217	Cocoa, chocolate and sugar confectionery
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	synthetic rubber
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PA313	Iron castings, etc.
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PA339.3	Refrigerating machinery, space-heating,
	ventilating and air-conditioning equipment
PA339.5	Scales and weighing machinery and portable
	power tools
PA339.7	Food and drink processing machinery and
	packaging and bottling machinery
PA339.9	Miscellaneous (non-electrical) machinery
PA341	Industrial (including process) plant and steelwork
PA342	Ordnance and small arms
PA349.1	Ball, roller, plain and other bearings
PA349.2	Precision chains and other mechanical engineering
PA351	Photographic and document copying equipment
PA352	Watches and clocks
PA353	Surgical instruments and appliances
PA354	Scientific and industrial instruments and systems
PA361	Electrical machinery
PA362	Insulated wires and cables
PA363	Telegraph and telephone apparatus and
DADEA	equipment
PA364	Radio and electronic components
PA365.1	Gramophone records and tape recordings
PA365.2	Broadcast receiving and sound reproducing
DAGES	equipment
PA366	Electronic computers
PA367	Radio, radar and electronic capital goods
PA368	Electrical appliances primarily for domestic use
	,

PA369.1	Electrical equipment for motor vehicles, cycles
PA369.2	and aircraft Primary and secondary batteries
	Electric lamps, electric light fittings, wiring accessories, etc.
PA370	Shipbuilding and marine engineering
PA380 PA381.1	Wheeled tractor manufacturing Motor vehicle manufacturing
PA381.2	
PA382	Motor cycle, tricycle and pedal cycle manufacturing
PA383 PA384	Aerospace equipment manufacturing and repairing Locomotives, railway track equipment, railway carriages,
	wagons and trams
PA390 PA391	Engineers' small tools and gauges Hand tools and implements
PA392	Cutlery, spoons, forks and plated tableware, etc.
PA393 PA394	Bolts, nuts, screws, rivets, etc. Wire and wire manufactures
PA395	
PA396	Jewellery and precious metals Metal furniture
	Drop forgings, etc.
	Metal hollow-ware Miscellaneous metal manufacture
PA411	Production of man-made fibres
PA412 PA413	Spinning and doubling on the cotton and flax systems
PA413 PA414	Weaving of cotton, linen and man-made fibres Woollen and worsted
PA415	Jute
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PA417.2	Warp knitting
PA418 PA419	Lace Carpets
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PA432	Leather goods
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PA442	Men's and boys' tailored outerwear
PA443 PA444	Women's and girls' tailored outerwear Overalls and men's shirts, underwear, etc.
PA445	Dresses, lingerie, infants' wear, etc.
PA446 PA449.1	Hats, caps and millinery Corsets and miscellaneous dress industries
PA449.2	Gloves
PA450 PA461.1	Footwear Refractory goods
PA461.2	Building bricks and non-refractory goods
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PA463 PA464	Cement
PA469.1	Abrasives
PA469.2 PA471	Miscellaneous building materials and mineral products Timber
PA472	Furniture and upholstery
PA473 PA474	Bedding, etc. Shop and office fitting
PA475	Wooden containers and baskets
PA479 PA481	Miscellaneous wood and cork manufactures Paper and board
PA482.1	Cardboard boxes, cartons and fibre-board packing cases
PA482.2 PA483	Packaging products of paper and associated materials Manufactured stationery
PA484.1	Wallcoverings
PA484.2 PA485	Miscellaneous manufactures of paper and board
PA485	Printing, publishing of newspapers and periodicals General printing and publishing
PA491	Rubber
PA492 PA493	Linoleum, plastics floor-covering, leathercloth, etc. Brushes and brooms
PA494.1	Toys, games and children's carriages
PA494.3 PA495	Sports equipment Miscellaneous stationers' goods
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PA499.1 PA499.2	Musical instruments Miscellaneous manufacturing industries
PA500	Construction
PA601 PA602	Gas
PA603	Electricity Water supply
	Summary tables

PA393 BOLTS, NUTS, SCREWS, RIVETS, ETC

The information in this report relates to establishments classified to the Bolts, nuts, screws, rivets, etc. industry, minimum list heading 393 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

1

Manufacturing bolts, nuts, screws, met	al washers,	rivets, split pir	ns, cut nails, zinc nails
minimum list heading 394.			

minimum II	st neading	394.			
			In interpreting t	he data in the tak	oles it is essent
		in		nd definitions wh	
	ENTS				
Table	Title				
No .					
1 1890,670	Output ar	nd costs, 1974–1	978		
2	Capital ex	penditure, 1974-	-1978		
3	Stocks an	d work in progre	ss, 1974–1978		
4	Analysis o	of establishments	by size, 1978		
5	Regional of at factor of	distribution of en cost, 1978	nployment, net ca	apital expenditure	e, net output a
6	Percentage Kingdom	e analysis of twel establishments, 1	ve-month periods 978	covered by retur	ns received fro
7	Percentag	e analysis of emp	loyees, by full an	d part-time empl	ovment and se
8		ratios, 1977–19		and you come should	, mont and se

s etc. Wire nails are excluded, these being classified to

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nd gross value added	
om United	7
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and 1975 ranks of Industrial and co	8

#### TABLE 1

Output and costs, 1974–1978 All United Kingdom establishments classified to the industry (a)

	Unit	1974	1975	1976	1977	1978
Enterprises	Number	335	337	344	340	340
stablishments	"	393	395	410	401	400
ales of goods produced	£ thousand	239,292	266,159	308,703	351,104	383,944
Receipts for work done and industrial ervices rendered	nini te tear nini sang no sa "	(b)	(b)	891	1,274	1,257
apital goods produced for establish- ents' own use	"	522	486	376	452	653
lon-industrial services rendered	"	2,057	2,037	956	996	1,448
oods merchanted or factored	"	17,788	18,915	27,021	25,709	25,139
Total sales and work done (c)	"	259,658	287,597	337,947	379,534	412,442
ncrease during the year, work in rogress and goods on hand for sale	"	7,869	11,001	11,358	8,868	4,177
Gross output		267,527	298,597	349,305	388,402	416,619
urchases of materials for use in pro- uction, and packaging and fuel	<b>,,</b>	136,326	132,665	146,605	162,427	167,639
urchases of goods for merchanting or actoring	"	(d)	(d)	20,941	19,857	20,176
ncrease during the year, stocks of naterials, stores and fuel		6,449	-921	7,118	1,480	1,120
ost of industrial services received	"	11,347	11,186	14,442	17,207	18,695
Net output	"	126,303	153,825	174,436	190,390	211,229
otal employment (d)	Thousands	38.1	36.1	34.4	33.5	31.9
Net output per head	£	3,314	4,265	5,068	5,691	6,622
ayments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	1,531	2,370	1,719	1,498	1,943
Rents of industrial and commercial buildings	"	(f)	(f)	1,247	1,743	2,097
Commercial insurance premiums	"	943	1,257	,1451	1,560	1,895
Bank charges	"	237	277	180	187	237
Other non-industrial services	"	7,204	9,712	14,135	16,193	22,907
censing of motor vehicles	"	84	112	98	132	147
ates, excluding water rates	"	1,921	2,680	3,262	3,205	3,319
Gross value added at factor cost	"	114,384	137,417	152,345	165,873	178,683
Gross value added at factor cost per head	£	3,001	3,810	4,426	4,958	5,602

Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census. Satisfactory returns accounted for 76 per cent of employment within the industry. (a)

(b) Included in sales of goods produced.

(c) Details of manufacturers' quarterly sales of principal products are published regularly in Business Monitor PQ393.

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

(e) For 1974 and 1975 rents of industrial and commercial buildings were not recorded separately, but included in hire of vehicles, plant and machinery.

2

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### TABLE 2

Capital expenditure, 1974–1978

1974	1975				
	1975	1976	1977	1978	
		least wet	13)	anera a	
1,704	1,043	491	947	1,329	
1,056	279	152	166	208	
207	593	826	370	423	
1,278	1,200	1,711	2,012	2,137	
336	353	460	567	1,018	
8,181	10,193	10,384	8,393	12,171	
453	340	1,066	923	749	
11,223	11,429	10,386	9,658	13,655	
	1,056 207 1,278 336 8,181 453	1,0562792075931,2781,2003363538,18110,193453340	1,0562791522075938261,2781,2001,7113363534608,18110,19310,3844533401,066	1,0562791521662075938263701,2781,2001,7112,0123363534605678,18110,19310,3848,3934533401,066923	1,0562791521662082075938263704231,2781,2001,7112,0122,1373363534605671,0188,18110,19310,3848,39312,1714533401,066923749

Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census. (a)

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

#### TABLE 3

Stocks and work in progress, 1974–1978 All United Kingdom establishments classified to the industry (a)

	1974	1975	1976
	114,2 800,21	·马/693.8	Increase
Materials, stores and fuel	6,449	-921	7,118
Work in progress	3,262	-638	3,919
Goods on hand for sale	4,607	11,638	7,438
Total	14,318	10,080	18,476

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

3

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1977		1978
68,723,932	una talana	Value at end of year
1,480	1,120	34,427
1,608	2,423	22,510
7,259	1,754	47,866
10,347	5,297	104,804

£ thousand

#### TABLE 4

Analysis of establishments by size, 1978 All United Kingdom establishments classified to the industry (a)

Size group (b)	Estab- lish- ments	Enter- prises (c)	Employme	ent		Wages and sa	alaries (f)		
			Total (d)	Opera- tives	Others (e)	Operatives		Others (e)	ing weld
			(0)		(0)	Total	per head	Total	per head
Second States	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£
1-10	143	141	684)						
11-19	71	71	) 1,002)						
20-49	74	73	) 2,256)	5,422	1,421	14,989	2,764	5,900	4,152
50—99	44	40	) 3,136)						
100–199	23	23	3,176	2,336	833	6,896	2,952	3,448	4,139
200–299	20	17	4,989	3,741	1,248	11,486	3,070	4,921	3,943
300-399	5	5	1,834	1,399	435	5,117	3,658	1,618	3,721
400-499	6	3	2,697	2,031	666	7,150	3,520	2,891	4,341
500-749	7	5	4,367	3,195	1,172	11,248	3,520	4,747	4,050
750—999	4	4	3,383	2,595	788	8,516	3,282	3,285	4,169
000 and over	3	3	4,372	2,875	1,497	10,052	3,496	6,362	4,250
	400	340	31,896	23,594	8,060	75,455	3,198	33,172	4,116

4

(d) Including working proprietors.

(e) Administrative, technical and clerical employees.

Total sales and work done (g)	Gross output	Net output		Gross value added at factor cost
		Total	per head	Total
£ thousand	£ thousand	£ thousand	£ To test too outel/ recorder X	£ thousand
86,266	87,973	41,927	5,924	(j)
37,385	38,069	20,103	6,330	51,544(j)
61,761	63,579	32,316	6,478	27,093
23,135	23,397	11,575	6,311	10,078
40,013	40,824	20,609	7,641	17,191
51,877	51,825	28,469	6,519	24,644
52,391	53,312	25,990	7,683	22,437
59,614	57,641	30,239	6,917	25,696
12,442	416,619	105614	6,622	178,683

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

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

(j) Gross value added data relate to establishments employing 1-199.

	Net capital expenditure (h)	Total stocks and work in progress at
	(1)/	end of year
per head		
£	£ thousand	£ thousand
(j)	3,426	17,935
5,027(j)	1,144	9,018
5,431	2,794	18,012
5,495	904	5,363
6,374	989	9,220
5,643	1,689	16,069
6,632	1,496	11,958
5,877	1,213	17,230

5,602

13,655

104,804

re schemes and the running costs of canteens, is kers on returns received was £32 thousand.

### PA393

TABLE 6

Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1978 All United Kingdom establishments classified to the industry (a)

Area	Total employm	ent (b)	Net capital expenditure	Net capital expenditure (c)		Gross value added at factor cost (d)	Gross value added at factor cost returned by establishments with 80 per cent or more of their employment	
							in the region proportion gross value factor cost region	on as a of total added at
	Thousand	s per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	£ thousand	percentage	-
Standard regions of England								
North	0.4	1.3	136	1.0	2,394	1,973	- <u>-</u>	
Yorkshire and Humberside	1.9	6.0	575	4.2	13,695	11,987	86.7	
East Midlands	2.3	7.1	820	6.0	14,896	13,082	93.4	
East Anglia	70565.0*		000,000	*	32.3 48			
South East	3.7	11.6	1,848	13.5	25,538	21,716	68.2	
South West	0.2	0.6	81	0.6	1,220	1,029	49.1	
West Midlands	18.3	57.5	8,322	60.9	118,912	99,730	60.0	
North West	2.4	7.4	1,035	7.6	16,608	14,181	56.2	
England	*	*	*	*		*	/	
Wales 🔨 🦘	1.2	3.8	422	3.1	7,203	5,718	59.6	
Scotland	1.5	4.6	381	2.8	10,441	9,007	64.0	
Great Britain	*	· *	*	*	*	*	/	1
Northern Ireland	•	*	*	*	*	*	*	
United Kingdom	31.9	100.0	13,655	100.0	211,229	178,683	/	

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

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

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

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. (d)

6

Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments, 1978

Accounting year ended		Percentage of tota	Percentage of total returns received				
	018.11	per cent	schole alle				
978	April (a)	2.0					
	Мау	1.0					
	June .	5.0					
	July	10.1					
	August	3.0					
	September	7.1					
	October						
	November	1.0					
	December	50.5					
979	January	evitient of their persons of the evitient of their persons of the out at the co- new cer but					
	February	1.0					
	March (b)	19.2					

#### (a) From 6th April.

(b) Including returns made for twelve-month period ended 1st to 5th April 1979.

#### TABLE 7

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

Sex	Full-time	Part-time
The second s	per cent	per cent
Male	70	1
Female	22	7
	grave have been as bonders, the way	

(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at mid-June, 1977.

7

per cent	
0.6	
0.2	
0.2	
5.1	
10.6	
1.0	
1.0	
6.0	
nge <del>r</del> ov sagan	
0.9	
na heninthair -	
65.1	
	and an activity of the state of the
technology )	
0.4	
10.1	

	All employees	
- and the second se	per cent	
	71	
	29	

Source: Department of Employment

#### TABLE 8

### Operating ratios, 1977-1978

All United Kingdom establishments classified to the industry (a)

		a particular and			
Auta bevolctine redmolfm			Unit	1977	1978
Gross output per head			£	11,610	13,062
Net output per head			£	5 004	2.000
Net oùthut her nead			L .	5,691	6,622
Gross value added per head			£	4,958	5,602
Gross value added as a percent	age of gross output		%	43	43
Ratio of gross output to stocks	6.8			3.8	4.0
Wages and salaries as a percent	age of gross value added		%	61	61
Piconecessida					
Ratio of operatives to administ employees	rative, technical and clerical			3.0	2.9
Wages and salaries per administ	rative, technical and clerical		£		
employee				3,616	4,116
Nages and salaries per operative	e		£	2,879	3,198
Net capital expenditure per hea	d		£	289	428
findend, v. H					
Net capital expenditure as a pe	rcentage of gross value added	t is the second	%	6	8
	and the second state of th				

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

e) Here binide					

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8

#### Notes

PA393

These notes give the main information needed for interpreting he figures in the industry Business Monitors: more detailed formation about the census is given in a separate Business Monitor PA 1001 (Introductory Notes) of the Report on the Census of Production, 1978.

#### GENERAL INFORMATION

### Changes made for 1978

the Census for 1978 is in line with similar inquiries being onducted in other member countries of the European Economic Communities.

the census differed from earlier censuses in three respects. Sampling was introduced for establishments employing 20 to 49 and a sample of smaller units was selected. A new question on he leasing of capital assets was included for 1978 only. This will provide register information for use in related inquiries into leasing.

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 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 uppressed, either by combining it with other figures, or as in the gional tables, by omitting the figure altogether

#### mbols used

he following symbols are used throughout the PA series of usiness 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

#### unding of figures

gures in the tables have, where necessary, been rounded to the rest final digit. Where figures have been so rounded, the sum of the constituent items may not always agree exactly with the tal 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 llowed are those of the International Standard Industrial assification 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 ited Kingdom. The SIC is a classification by activity and is ot a commodity classification. However, an index of all commodity eadings for which sales data are provided in the Quarterly Business Monitors, is published in Business Monitor PQ 1000.

#### atistical units

ne statistical unit for the purpose of the Census is the establishment ich is defined in the SIC as the smallest unit which can provide 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 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 in more than one of the countries of the United Kingdom. Establishments are asked to exclude from their returns particulars relating to any department not engaged in production eq 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. An enterprise group is 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 register.

In recent censuses returns have been required from all establishments employing 20 or more. For the 1978 Census in 68 selected manufacturing industries coverage of establishments in the 20 to 49 employment size band has been reduced to a 1 in 2 sample. This change has relieved some 5,800 firms of the need to complete a census return. The Census has included for the first time a small sample (around 10 per cent) of units employing 11 to 19 to meet an EEC requirement to collect a limited range of data from smaller units every 5 years.

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 the Department of Employment and HM Customs and Excise. The 1973 Finance Act allows the latter to pass lists of businesses registered for VAT to the BSO. Where necessary details are sought directly from new businesses. Units which cease to trade are removed from the live

#### 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 average number of persons on the payroll during the year of return. Separate figures were required for:

administrative, technical and clerical employees (a)

(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. Full-time and part-time employees are included but 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 and to state whether any of the investment shown in cost of new building work, vehicles or plant and machinery included goods for letting out on hire or leasing.

#### (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, o 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 outworkers.

#### Purchases

(iv)

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

customers; and of food, etc for any canteen covered by the establishment's return. Transfers of goods to the establishment from another department of the same firm not covered by the establishment's return are included at a cost corresponding to the estimated selling value recorded by the other department. Amounts payable to transport firms or credited to the firm's own transport department 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 collected separately since 1973. The values shown exclude VAT. They include, in addition to the actual purchase price, the value of 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 covered by the inquiry. Sales of goods made for these establishments by outworkers or by other establishments from materials given out to 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' 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 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 is 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' commissions 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.

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. Progress payments made to subcontractors are excluded and progress payments received from other organisations are not deducted

Wages and salaries

## 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 each industry. including not selected 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 practice with regard to stock valuation, may affect comparability in some respects.

#### 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.

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 and commissions, 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 included.

#### 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 under the Social Security Pensions Act, 1975 as well as 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.

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