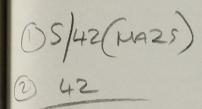
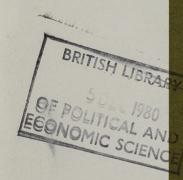
PA463

1978



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Business Statistics Office

Business Monitor

Report on the Census of Production

Glass



A publication of the Government Statistical Service

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. 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).

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Report on the 1978

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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



Census of Production

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PA102	Stone and slate quarrying and mining
PA103	Chalk, clay, sand and gravel extraction
PA104	Petroleum and natural gas
PA109	Miscellaneous mining and quarrying
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PA213	Biscuits
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PA215	Milk and milk products
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PA217	Cocoa, chocolate and sugar confectionery
PA218	Fruit and vegetable products
PA219	Animal and poultry foods
PA221 PA229.1	Vegetable and animal oils and fats Margarine
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PA279.4	Formulated pesticides, etc.
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PA311	Iron and steel (general)
PA312	Steel tubes
PA313	Iron castings, etc.
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PA323	Copper, brass and other copper alloys Miscellaneous base metals
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PA332	Metal-working machine tools
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PA339.1	Mining machinery
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PA339.3	Refrigerating machinery, space-heating,
DA000 F	ventilating and air-conditioning equipment
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FA339.7	Food and drink processing machinery and packaging and bottling machinery
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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 PA363	Insulated wires and cables
FA303	Telegraph and telephone apparatus and
PA364 .	equipment Radio and electronic components
PA365.1	Gramophone records and tape recordings
PA365.2	Broadcast receiving and sound reproducing
	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
	PA369.4	Electric lamps, electric light fittings, wiring
	PA370	accessories, etc. Shipbuilding and marine engineering
	PA380	Wheeled tractor manufacturing
	PA381.1	Motor vehicle manufacturing
	PA381.2 PA382	Trailers, caravans and freight containers Motor cycle, tricycle and pedal cycle manufacturing
	PA383	Aerospace equipment manufacturing and repairing
	PA384	Locomotives, railway track equipment, railway carriages
	PA390	wagons and trams Engineers' small tools and gauges
	PA391	Hand tools and implements
	PA392 PA393	Cutlery, spoons, forks and plated tableware, etc. Bolts, nuts, screws, rivets, etc.
	PA394	Wire and wire manufactures
	PA395 PA396	Cans and metal boxes Jewellery and precious metals
	PA399.1	
		Drop forgings, etc.
•	PA399.8	Metal hollow-ware Miscellaneous metal manufacture
	PA411	Production of man-made fibres
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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.
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	PA450	Footwear
	PA461.1 PA461.2	Refractory goods Building bricks and non-refractory goods
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	PA471 PA472	Timber Furniture and upholstery
	PA473	Bedding, etc.
	PA474 PA475	Shop and office fitting Wooden containers and baskets
	PA479	Miscellaneous wood and cork manufactures
	PA481 PA482.1	Paper and board
	PA482.2	Cardboard boxes, cartons and fibre-board packing cases Packaging products of paper and associated materials
	PA483	Manufactured stationery
	PA484.1 PA484.2	Wallcoverings Miscellaneous manufactures of paper and board
	PA485	Printing, publishing of newspapers and periodicals
	PA489 PA491	General printing and publishing Rubber
	PA492	Linoleum, plastics floor-covering, leathercloth, etc.
	PA493	Brushes and brooms
	PA494.1 PA494.3	Toys, games and children's carriages Sports equipment
	PA495	Miscellaneous stationers' goods
	PA496 PA499.1	Plastics products Musical instruments
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	PA500	Construction
	PA601 PA602	Gas Electricity
	PA603	Water supply

PA463 GLASS

The information in this report relates to establishments classified to the Glass industry, minimum list heading 463 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

Manufacturing all types of flat glass, safety glass, glass bricks, glass rods, glass tubing, domestic glassware, mirrors, leaded lights, lamp glasses and glass envelopes for lamp bulbs, scientific and medical glassware, glass bottles, bottle stoppers, jars, syphons and vacuum flasks, glass fibre roving, mat, chopped strand and roving, and thermal insulating materials of glass fibre. Glass cutting, decorating, engraving, polishing, staining, etc. are included but the cutting of glass to size in the course of distribution, is excluded. The manufacture of optical glass is included but the grinding of lenses is excluded. Glass fibre yarn, tape and cloth, resin bonded fibreglass sheets and mouldings, complete fibreglass boats, and other manufactures of glass fibre are also excluded.

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

Ĩ	ST	OF	CO	NTE	INTS	2

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2	Capital expenditure, 1974–1978				3
3	Stocks and work in progress, 1974–	1978			3
4	Analysis of establishments by size, 1	978			4-
5	Regional distribution of employment at factor cost, 1978	t, net capital ex	penditure, net output a	nd gross value added	6
6	Percentage analysis of twelve-month Kingdom establishments, 1978	periods covered	d by returns received fro	m United	7
7	Percentage analysis of employees, by	full and part-t	ime employment and sex	c, 1977	. 7
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PA602 Electricity PA603 Water supply PA1002 Summary tables

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

	Unit	1974	1975	1976	. 1977	1978
Enterprises	Number	600	621	617	623	623
stablishments		679	711	704	705	709
Sales of goods produced	£ thousand	449,728	542,256	686,175	807,164	913,129
Receipts for work done and industrial ervices rendered		(b) ·	(a)	2,978	2,885	5,339
Capital goods produced for establish- nents' own use	"	4,823	3,153	4,704	8,331	6,020
Non-industrial services rendered	"	23,374	29,863	(b)	(b)	(a)
Goods merchanted or factored	"	38,069	30,976	41,631	42,280	55,586
Total sales and work done (c)		515,994	606,248	735,488	860,661	980,075
ncrease during the year, work in rogress and goods on hand for sale	"	16,969	3,312	6,999	15,316	14,936
Gross output	"	532,963	609,560	742,488	875,977	995,010
Purchases of materials for use in pro- duction, and packaging and fuel	"	196,362	225,282	272,577	323,465	353,674
Purchases of goods for merchanting or actoring	"	30,259	29,533	31,932	37 ,430	41,338
ncrease during the year, stocks of naterials, stores and fuel	"	9,150	2,398	8,270	5,499	5,063
Cost of industrial services received	"	7,326	5,838	11,868	15,495	20,273
Net output	"	308,166	351,306	434,381	505,085	584,789
Fotal employment (d)	Thousands	71.5	64.7	63.0	63.7	62.9
Net output per head	£	4,309	5,426	6,898	7,924	9,290
Payments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	3,633	4,540	2,007	3,202	3,491
Rents of industrial and commercial buildings	"	(e)	(e)	2,048	2,414	4 ,09 1
Commercial insurance premiums	"	2,746	2,963	3,313	4,076	4,629
Bank charges		317	208	314	375	392
Other non-industrial services	"	26,224	27,060	31,693	38,467	44,062
icensing of motor vehicles		258	298	501	575	512
Rates, excluding water rates	"	5,514	6,927	6,846	7,750	8,341
Gross value added at factor cost		269,476	309,310	387,658	448,224	519,272
Gross value added at factor cost per head	£	3,768	4,777	6,156	7,032	8,249

Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census. Satisfactory returns accounted for 86 per cent of employment within the industry. (a)

(b) Included in sales of goods produced.

Details of manufacturers' quarterly sales of principal products are published regularly in Business Monitor PQ463. (c)

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

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

TABLE 2

PA463

Capital expenditure, 1974-1978

	1974	1975	1976	1977	1978
and and buildings				100 100	(207)
New building work	10,084	6,399	4,495	8,320	12,412
Land and existing buildings					
Acquisitions	493	2,100	625	933	2,226
Disposals	87	524	5,680	6,154	10
ehicles					
Acquisitions	2,591	2,048	2,637	3,830	4,355
Disposals	425	481	643	877	1,366
ant and machinery					
Acquisitions	32,737	33,376	30,395	44,551	61,708
Disposals	293	721	1,111	2,700	990
Total net capital expenditure	45,100	42,196	30,718	47,903	78,336

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

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

TABLE 3

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

	4			
		1974	1975	1976
				Increase
Materials, stores and fuel		9,150	2,398	8,270
Work in progress		2,036	231	1,472
Goods on hand for sale		14,934	3,080	5,527
Total		26,119	5,710	15,270

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

2

	£ thousand				
1977		1978			
		Value at end of year			
5,499	5,063	56,122			
1,933	1,789	14,557			
13,383	13,146	80,691			
20,815	19,999	151,370			
		and a second second second second			

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

Size	Estab-	Enter-	Employme	ent		Wages and sa	laries (f)		
group (b)	lish- ments	prises (c)				***			
			Total (d)	Opera- tives	Others (e)	Operatives		Others (e)	
						Total	per head	Total	per head
	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£
1-10	431	417	1,962)						
11—19	104	93) 1,479)		MARCH	1461 S.A.			
20—49	62	60) 1,784)	5,058	1,366	15,156	2,996	5,864	4,293
50-99	24	24) 1,688)						
100—199	41	37	5,632	4,452	1,176	14,832	3,332	4,818	4,097
200–299	7	7	1,781	1,452	329	5,162	3,555	1,424	4,328
300-399	7	7	2,488	1,876	611	7,407	3,948	3,022	4,946
400-499	3	3	1,415	1,135	280	4,527	3,988	1,392	4,971
500749	10	9	6,010	4,821	1,189	18,790	3,898	5,688	4,784
750-999	6	5	5,090	3,908	1,182	14,795	3,786	5,389	4,559
,000—1,499	8	5	10,327	7,965	2,362	34,092	4,280	11,942	5,056
,500 and over	6	4	23,291	15,933	7,358	74,543	4,678	43,086	5,856

	26 5,212	4,062	189,303	15,853	46,600	62,947	623	709	Total
and second se				elegation and a set the set	and the state of the second		a		and the second second

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

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

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	£	£ thousand
81,920	83,401	44,290	6,407	(j)
74 ,223	75,213	35,898	6,374	69,753(j)
23,452	23,619	12,051	6,766	10,259
48,276	48,931	30,048	12,077	28,254
18,885	19,222	12,593	8,899	11,163
80,641	81,933	53,168	8,847	47,386
68,451	69,222	42,213	8,293	39,135
165,069	169,461	96,876	9,381	81,780
419,158	424,008	257,651	11,062	231,543

		292394			
80,075	995,010	584,789	9,290	519,272	

The cost of employers' contributions to national insurance, pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £47,893 thousand. The remuneration of outworkers on returns received was £20 thousand. (f)

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)

5

(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.

per	Net capital expenditure (h)	Total stocks and work in progress at end of year
head		
£	£ thousand	£ thousand
(j)	2,962	15,202
5,560(j)	5,605	10,342
5,760	1,183	3,412
11,356	1,042	6,844
7,889	2,862	2,935
7,884	9,203	14,480
7,689	7,365	12,030
7,919	12,776	28,098
9,941	35,338	58,026

8,249

78,336

151,370

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 employment (b)		Net capital expenditure (c)		Net output (d)	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 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	percentage	
Standard regions of England								
North	4.8	7.7	11,224	14.3	30,632	27,394	78.5	
Yorkshire and Humberside	*	*	*	*	*	*	*	
East Midlands	*	*	*	*	*	*	*	
East Anglia	0.8	1.2	353	0.4	5,139	4,550	31.5	
South East	10.2	16.2	7,166	9.2	79,526	70,312	38.1	
South West	0.9	1.5	335	0.4	5,369	4,543	43.6	
West Midlands	*	*	*	*	*	*	*	
North West	*	*	*	*	*	*	*	
					500.074	451 705		
England	56.2	89.2	66,661	85.1	506,274	451,795		
Wales	*	*	*	*	*	*		
Scotland	*	*	*	*	*	*	*	
Great Britain	62.6	99.4	77 ,989	99.6	584,006	518,734	/	
Northern Ireland	0.4	0.6	347	0.4	782	538	28.8	
United Kingdom	62.9	100.0	78,336	100.0	584,789	519,272	/	

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

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)

TABLE 6

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

Accounting year ended		Percentage of total returns re	Percentage of total returns received		
10	the second states	per cent			
1978	April (a)	1.9			
	Мау	and make _ contractions			
	June	5.8			
	July	1.0			
	August	1.0			
	September	2.9			
	October	4.8			
	November	3.9			
	December	48.5			
1979	January	4.8			
	February	3.9			
	March (b)	21.4			

(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	
(when	per cent	per cent	
Male	76	1	
Female	18	5	

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

6

7

er cent	
0.2	
-	
1.1	
0.2	
0.1	
0.4	
7.6	
2.5	
19.4	
1.9	
1.6	
35.0	

*		
	*	

Source: Department of Employment

Operating ratios, 1977-1978

All United Kingdom establishments classified to the industry (a)

	Unit	1977	1978
Gross output per head	£	13,743	15,807
Net output per head	£	7,924	9,290
Gross value added per head	£	7,032	8,249
Gross value added as a percentage of gross output	%	51	52
Ratio of gross output to stocks		7.1	6.6
Wages and salaries as a percentage of gross value added	%	52	52
Ratio of operatives to administrative, technical and clerical employees		3.0	2.9
Wages and salaries per administrative, technical and clerical employee	£	4,410	5,212
Wages and salaries per operative	£	3,395	4,062
Net capital expenditure per head	£	752	1,244
Net capital expenditure as a percentage of gross value added	%	11	15

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

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Notes

PA463

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, 1978.

GENERAL INFORMATION

Changes made for 1978

The Census for 1978 is in line with similar inquiries being conducted 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 the 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 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".

If a 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.

Statistical 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

United Kingdom. activities in their return. 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 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 register.

Coverage

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.

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

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. 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

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 (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.

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 outworkers.

Purchases

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 ourchase 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 ar 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 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 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 obbing 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 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.

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. Progress payments made to subcontractors 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 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.

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.

Non-industrial services rendered

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.

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.

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