PA274

1978

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**Business Statistics Office** 

## **Business Monitor**

Report on the Census of Production

**Paint** 





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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).

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

## PA274

# **Business Monitor**

A publication of the Government Statistical Service

Report on the Census of Production 1978

## **Paint**

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

PA367 PA368

Radio, radar and electronic capital goods Electrical appliances primarily for domestic use

List o	f Industry Reports, etc.		
PA100		PA369.	1 Electrical equipment for motor vehicles, cycles
PA101 PA102	Coal mining Stone and slate quarrying and mining	PA369	and aircraft  2 Primary and secondary batteries
PA103	Chalk, clay, sand and gravel extraction	PA369.	4 Electric lamps, electric light fittings, wiring
PA104 PA109	Petroleum and natural gas Miscellaneous mining and quarrying		accessories, etc.
PA211	Grain milling	PA370 PA380	Shipbuilding and marine engineering Wheeled tractor manufacturing
PA212	Bread and flour confectionery	PA381.	1 Motor vehicle manufacturing
PA213 PA214	Biscuits		2 Trailers, caravans and freight containers
PA214	Bacon curing, meat and fish products Milk and milk products	PA382 PA383	Motor cycle, tricycle and pedal cycle manufacturing Aerospace equipment manufacturing and repairing
PA216	Sugar	PA384	Locomotives, railway track equipment, railway carria
PA217 PA218	Cocoa, chocolate and sugar confectionery	0.000	wagons and trams
PA219	Fruit and vegetable products Animal and poultry foods	PA390 PA391	Engineers' small tools and gauges Hand tools and implements
PA221	Vegetable and animal oils and fats	PA392	Cutlery, spoons, forks and plated tableware, etc.
PA229.	1 Margarine 2 Starch and miscellaneous foods	PA393	Bolts, nuts, screws, rivets, etc.
PA231	Brewing and malting	PA394 PA395	Wire and wire manufactures Cans and metal boxes
PA232	Soft drinks	PA396	Jewellery and precious metals
PA239.1	1 Spirit distilling and compounding 2 British wines, cider and perry		Metal furniture
PA240	Tobacco		5 Drop forgings, etc. 6 Metal hollow-ware
PA261	Coke ovens and manufactured fuel		Miscellaneous metal manufacture
PA262 PA263	Mineral oil refining Lubricating oils and greases	PA411	Production of man-made fibres
	Inorganic chemicals	PA412 PA413	Spinning and doubling on the cotton and flax system Weaving of cotton, linen and man-made fibres
PA271.2	2 Organic chemicals	PA414	Woollen and worsted
PA271.3 PA272	Miscellaneous chemicals	PA415	Jute
PA273	Pharmaceutical chemicals and preparations Toilet preparations	PA416	Rope, twine and net Hosiery and other knitted goods
PA274	Paint		Warp knitting
PA275 PA276	Soap and detergents	PA418	Lace
FA270	Synthetic resins and plastics materials and synthetic rubber	PA419 PA421	Carpets Narrow fabrics
PA277	Dyestuffs and pigments	PA422.1	Household textiles and handkerchiefs
PA278	Fertilizers Polishes	PA422.2	Canvas goods and sacks and other made-up textiles
PA279.2	Formulated adhesives gelatine etc	PA423 PA429 1	Textile finishing Asbestos
PA279.3	Explosives and fireworks	PA429.2	Miscellaneous textile industries
PA279.4	Formulated pesticides, etc. Printing ink	PA431	Leather (tanning and dressing) and fellmongery
PA279.6	Surgical bandages, etc.	PA432 PA433	Leather goods Fur
PA279.7	Photographic chemical materials	PA441	Weatherproof outerwear
PA311 PA312	Iron and steel (general) Steel tubes	PA442	Men's and boys' tailored outerwear
PA313	Iron castings, etc.	PA443 PA444	Women's and girls' tailored outerwear Overalls and men's shirts, underwear, etc.
PA321	Aluminium and aluminium alloys	PA445	Dresses, lingerie, infants' wear, etc.
PA322 PA323	Copper, brass and other copper alloys Miscellaneous base metals	PA446	Hats, caps and millinery
PA331	Agricultural machinery (except tractors)	PA449.1 PA449.2	Corsets and miscellaneous dress industries
PA332	Metal-working machine tools	PA450	Footwear
PA333.1 PA333.2	Valves	PA461.1	Refractory goods
PA333.3	Compressors and fluid power equipment	PA461.2 PA462	Building bricks and non-refractory goods Pottery
PA334 PA335	Industrial engines	PA463	Glass
PA336	Textile machinery and accessories Construction and earth-moving equipment	PA464	Cement
PA337	Mechanical handling equipment	PA469.1	Abrasives Miscellaneous building materials and mineral products
PA338	Office machinery	PA471	Timber
PA339.1	Mining machinery Printing, bookbinding and paper goods machinery	PA472	Furniture and upholstery
PA339.3	Refrigerating machinery, space-heating.	PA473 PA474	Bedding, etc. Shop and office fitting
	ventilating and air-conditioning equipment	PA475	Wooden containers and baskets
PA339.5	Scales and weighing machinery and portable power tools	PA479	Miscellaneous wood and cork manufactures
PA339.7	Food and drink processing machinery and	PA481 PA482 1	Paper and board Cardboard boxes, cartons and fibre-board packing case
	packaging and bottling machinery	PA482.2	Packaging products of paper and associated materials
PA339.9	Miscellaneous (non-electrical) machinery Industrial (including process) plant and steelwork	PA483	Manufactured stationery
PA342	Ordnance and small arms	PA484.1 PA484.2	Wallcoverings Miscellaneous manufactures of paper and board
PA349.1	Ball, roller, plain and other bearings	PA485	Printing, publishing of newspapers and periodicals
PA349.2 PA351	Precision chains and other mechanical engineering Photographic and document copying equipment	PA489	General printing and publishing
PA352	Watches and clocks	PA491 PA492	Rubber Linoleum, plastics floor-covering, leathercloth, etc.
PA353	Surgical instruments and appliances	PA493	Brushes and brooms
PA354 PA361	Scientific and industrial instruments and systems Electrical machinery	PA494.1	Toys, games and children's carriages
PA362	Insulated wires and cables	PA494.3 PA495	Sports equipment Miscellaneous stationers' goods
PA363	Telegraph and telephone apparatus and	PA496	Plastics products
PA364	equipment Radio and electronic components	PA499.1	Musical instruments
PA365.1	Gramophone records and tane recordings	PA499.2 PA500	Miscellaneous manufacturing industries Construction
FA305.2	Broadcast receiving and sound reproducing	PA601	Gas
	equipment Electronic computers	PA602	Electricity
PA367	Radio, radar and electronic capital goods	PA603 PA1002	Water supply Summary tables
PA368	Flectrical appliances primarily facility		Carring tubics

PA274 PAINT

The information in this report relates to establishments classified to the Paint industry, minimum list heading 274 in the Standard Industrial Classification (revised 1968). The activities of the industry include:—

Manufacturing paint, varnish, enamel, distemper, wood stain, french polish, white lead (in paste form) and artists' colours. Cement based paint 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).

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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	328	325	324	331	332
Establishments	"	366	362	361	374	373
Sales of goods produced	£ thousand	353,253	416,071	491,321	588,276	687,226
Receipts for work done and industrial services rendered		(b)	(b)	484	712	3,965
Capital goods produced for establishments' own use		294	86	201	112	307
Non-industrial services rendered		2,190	2,416	3,668	3,767	4,027
Goods merchanted or factored		31,839	20,390	40,581	42,108	45,747
Total sales and work done (c)	·	387,576	438,962	536,255	634,975	741,271
Increase during the year, work in progress and goods on hand for sale	,,	15,365	4,127	10,886	12,929	15,015
Gross output		402,940	443,090	547,142	647,903	756,287
Purchases of materials for use in production, and packaging and fuel	"	204,539	233,923	293,467	357,587	379,390
Purchases of goods for merchanting or actoring		24,711	15,296	28,689	28,897	32,974
ncrease during the year, stocks of naterials, stores and fuel	"	7,034	494	11,034	8,698	11,201
Cost of industrial services received	"	5,563	4,971	7,240	7,597	10,620
Net output	"	175,162	189,394	228,780	262,520	344,504
Total employment (d)	Thousands	29.3	28.4	29.1	29.0	28.5
Net output per head	£	5,987	6,675	7,866	9,044	12,067
Payments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	2,811	2,835	1,811	2,734	4,505
Rents of industrial and commercial buildings		(e)	(e)	1,967	2,683	2,827
Commercial insurance premiums		1,655	2,066	2,753	2,989	3,911
Bank charges		405	171	258	317	437
Other non-industrial services		18,624	26,173	35,851	42,965	49,974
icensing of motor vehicles		254	219	294	342	410
lates, excluding water rates		2,802	3,605	4,023	4,199	4,571
Gross value added at factor cost	" _	148,611	154,324	181,824	206,291	277,870
Gross value added at factor cost per head	£	5,079	5,439	6,251	7,107	9,733

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census. Satisfactory returns accounted for 82 per cent of employment within the industry.

TABLE 2

Capital expenditure, 1974—1978
All United Kingdom establishments classified to the industry (a)(b)

£	th	ou	sa	no

	1974	1975	1976	1977	1978
and and buildings					
New building work	2,688	5,257	1,279	1,441	3,210
Land and existing buildings					
Acquisitions	627	1,197	771	330	739
Disposals	394	447	291	320	419
/ehicles					
Acquisitions	2,569	2,389	3,126	4,354	4,618
Disposals	812	798	1,103	1,504	1,628
lant and machinery					
Acquisitions	7,255	8,426	9,271	11,683	13,833
Disposals	171	155	487	190	306
Total net capital expenditure	11,761	15,868	12,565	15,794	20,048

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

TABLE 3

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

						£ thous
	1974	1975	1976	1977		1978
	AND DEED OF	ORITH	Increase	645.00 BURNER	130 100 100	Value at end of year
Materials, stores and fuel	7,034	494	11,034	8,698	11,201	64,983
Work in progress	2,264	260	2,009	2,314	758	11,236
Goods on hand for sale	13,101	3,867	8,877	10,615	14,257	78,234
Total	22,398	4,622	21,920	21,626	26,216	154,452

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

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

Details of manufacturers' quarterly sales of principal products are published regularly in Business Monitor PQ274.

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

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

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

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

Size Estab- group lish- (b) ments	lish-	Enter- prises (c)	Employment			Wages and salaries (f)			
			Total (d)	Opera- tives	Others (e)	Operatives	Operatives		
						Total	per head	Total	per head
	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£
1-10	191	185	1,004)						
11-19	51	51	745)						
20–49	45	45	1,327)	3,065	2,230	9,329	3,044	9,373	4,203
50-99	35	31	2,451)						
100-199	21	20	2,978	1,796	1,182	5,660	3,151	5,109	4,322
200–299	9	8	2,223	1,384	839	4,042	2,921	3,583	4,271
300-399	10	10	3,402	1,855	1,544	6,293	3,392	6,335	4,103
400-749	3	3	1,501	838	662	2,554	3,048	2,772	4,187
750—1,499	4	4	4,018	2,198	1,820	8,280	3,767	6,663	3,661
,500 and over	4	4	8,900	4,351	4,549	17,975	4,131	23,293	5,120

Total	373	332	28,549	15,487	12,826	54,132	3,495	57,129	4,454

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

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Total sales and work done (g)	Gross output	Net output		Gross value added at factor cost		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
142,272	144,534	63,617	11,510	(j)	(j)	4,777	25,484
92,192	94,218	44,682	15,004	92,851(j)	10,917(j)	2,812	17,702
38,680	40,236	18,817	8,465	14,793	6,655	1,544	10,380
92,342	93,448	40,152	11,802	32,952	9,686	2,148	18,917
32,945	33,561	15,613	10,402	11,776	7,845	1,089	8,749
79,057	81,002	35,886	8,931	29,420	7,322	1,041	20,490
263,782	269,287	125,737	14,128	96,078	10,795	6,638	52,731

		172252					
741,271	756,287	344,504	12,067	277,870	9,733	20,048	154,452

The cost of employers' contributions to national insurance, pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £ 19,374 thousand. The remuneration of outworkers on returns received was £30 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.

<sup>(</sup>g) 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.

<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.

PA274

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	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 as a	
			The second second				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	1.8	6.4	1,263	6.3	16,464	13,043	60.1	
Yorkshire and Humberside	1.8	6.4	978	4.9	25,004	21,260	56.2	
East Midlands	0.8	2.8	600	3.0	9,315	8,167	52.1	
East Anglia	1.3	4.5	1,364	6.8	20,440	16,137	9.3	
South East	10.8	38.0	7,824	39.0	139,315	110,817	29.7	
South West	0.9	3.2	552	2.8	9,699	7,513	15.9	
West Midlands	3.2	11.2	3,889	19.4	34,597	29,503	34.4	
North West	6.3	22.0	2,561	12.8	72,578	57,290	83.1	
England	27.0	94.4	19,031	94.9	327,412	263,729		
Wales	0.4	1.6	261	1.3	4,465	3,743	29.1	
Scotland	1.0	3.4	647	3.2	10,856	8,833	18.6	
Great Britain	28.4	99.4	19,939	99.5	342,733	276,304	/	
Northern Ireland	0.2	0.6	109	0.5	1,771	1,566	66.7	
United Kingdom	28.5	100.0	20,048	100.0	344,504	277,870	/	

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.

(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. (d)

TABLE 6

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

Accounting year 6	nded	Percentage of total returns received	Percentage of total number employed
	(38),82	per cent	per cent
1978 April (a	)	2.2	0.4
May		1.1	0.4
June		2.2	0.7
July			
August		1.1	0.1
Septem	ber	6.7	3.8
Octobe	r straig carriers	7.9	9.2
Novem	per	5.6	1.6
Decem	per	57.3	61.1
1979 January	,	1.1	0.3
Februa	γ	1.1	0.1
March	(b)	13.5	22.2

(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	All employees	
	per cent	per cent	per cent	
Male	72	1	73	
Female	20	7	27	

Source: Department of Employment

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

Notes

Operating ratios, 1977–1978

All United Kingdom establishments classified to the industry (a)

					And the second second second
waveren menur, and to recommend			Unit	1977	1978
Gross output per head			£	22,321	26,491
Net output per head			£	9,044	12,067
Gross value added per head			£	7,107	9,733
Gross value added as a percentage of gross output			%	32	37
Ratio of gross output to stocks				5.0	4.9
Wages and salaries as a percentage of gross value added			%	48	40
Ratio of operatives to administrative, technical and clerical employees				1.1	1.2
Wages and salaries per administrative, technical and clerical			£	TO BY	Same (F)
employee			6 this -	3,841	4,454
Wages and salaries per operative			£	3,098	3,495
Net capital expenditure per head			£	544	702
Net capital expenditure as a percentage of gross value added				8	7

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

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 eport, summary or other communication to the public of formation 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

ounding 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.

ndustrial 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

example, employment, expenses, turnover, capital formation. Usually the principal activities carried on in an establishment fall within a single heading of the classification (eq 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 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 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

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 smalle (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.

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#### Region

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:

#### (a) administrative, technical and clerical employees

#### (b) all other employees (operatives)

Averages could be calculated from the figures relating to the last week of each calendar month. Establishments were also required to state the number of working proprietors where appropriate and these are included in total employment figures. 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, 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 ourchases 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 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.

#### 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. 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.

#### 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.

#### 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.

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