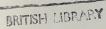


# 1977



MSO

14 MAR 1980 OF POLITICAL AND ECONOMIC SCIENCE **Business Statistics Office** 

# **Business Monitor**

# Report on the Census of Production

Electrical equipment for motor vehicles, cycles and aircraft



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. These Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) or Q (quarterly) or M (monthly): and then by a number indicating the minimum list heading, or sub-division of a minimum list heading, of the Standard Industrial Classification (revised 1968).

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

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

Enquiries:

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

# PA369.1

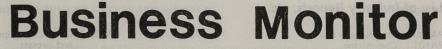
A publication of the Government Statistical Service

# Report on the **Census of Production** 1977

# **Electrical equipment for** motor vehicles, cycles and aircraft

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** 



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DADDO F	ventilating and air-conditioning equipment
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D.4.000.0	packaging and bottling machinery
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PA472	Furniture and upholstery
PA473 PA474	Bedding, etc. Shop and office fitting
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PA482.2 PA483	Packaging products of paper and associated material Manufactured stationery
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PA1002	Summary tables

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ases

PA369.1 ELECTRICAL EQUIPMENT FOR MOTOR VEHICLES, CYCLES AND AIRCRAFT

The information in this report relates to establishments classified to the Electrical equipment for motor vehicles, cycles and aircraft industry The information in the Sport of Standard Industrial Classification (revised 1968). The activities of the industry include: -

Manufacturing lighting, starting and ignition sets, dynamos, dashboard instruments for road vehicles and wheeled tractors, electric horns, traffic indicators and similar electrical equipment for motor vehicles, wheeled tractors, cycles and aircraft.

			In interpreting in mind the notes a	the data in the t and definitions w	
			123,425,455		
			185,737		
ST OF CONTE	NTO				
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Table No	Title				
1 005,977	Outpu	t and costs,	1973-1977		
2	Capita	lexpenditu	re, 1973–1977		
3	Stocks	and work i	in progress, 1973–197	7 7	
4	Analys	is of establ	ishments by size, 1977		
5		nal distribut or cost, 19 <sup>-</sup>	tion of employment, ne 77	et capital expend	iture, net out
6	Percen	tage analys	is of twelve-month per nments employing 20 c		
7			is of employees, by ful		
8		ting ratios,		Induced for an	wagodiod u

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2 3

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

	Unit	1973	1974	1975	1976	1977
Enterprises	Number	72	108	119	150	147
Establishments	e chick vendane :	83	123	132	166	161
ales of goods produced	£ thousand	216,467	223,024	290,928	290,073	335,910
Receipts for work done and industrial ervices rendered	alad to bear te orrigation (M).	(b)	(b)	(b)	3,147	1,838
Capital goods produced for establish- nents' own use	"	345	54	66	49	126
Ion-industrial services rendered	"	1,036	867	1,212	3,292	(b)
boods merchanted or factored	"	7,825	12,111	14,188	20,379	29,324
Total sales and work done (c)	"	225,673	236,056	306,395	316,941	367,197
ncrease during the year, work in rogress and goods on hand for sale	"	4,259	5,288	4,285	4,580	14,861
Gross output	"	229,933	241,344	310,680	321,520	382,058
urchases of materials for use in pro- uction, and packaging and fuel	"	97,220	100,820	128,685	133,178	163,850
urchases of goods for merchanting or ictoring	"	7,018	10,206	8,543	12,889	18,566
ncrease during the year, stocks of laterials, stores and fuel	"	2,623	5,080	-1,925	4,653	3,226
ost of industrial services received	"	6,352	6,172	4,297	5,968	6,767
Net output	" -	121,966	129,226	167,231	174,137	196,101
otal employment (d)	Thousands	47.6	48.4	41.7	38.6	39.2
Net output per head	£	2,560	2,672	4,006	4,514	5,003
ayments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	2,534	2,733	2,530	252	374
Rents of industrial and commercial buildings	"	(e)	(e)	(e)	3,045	3,483
Commercial insurance premiums		553	664	923	938	1,019
Bank charges	"	105	149	232	299	175
Other non-industrial services	"	2,799	5,731	5,990	6,789	11,099
censing of motor vehicles	"	68	84	101	86	119
ates, excluding water rates	"	1,504	1,723	1,789	2,311	2,342
Gross value added at factor cost		114,403	118,141	155,666	160,418	177,490
Gross value added at factor cost per head	£	2,402	2,443	3,729	4,159	4,528

Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons. Satisfactory returns accounted for 92 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 PQ 369.1.

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

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

2

### TABLE 2

PA369.1

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

		and the second	
The states of the second part	1973	1974	· 1975
Land and buildings			interesting in
New building work	278	1,130	825
Land and existing buildings			
Acquisitions	493	33	29
Disposals	183	198	117
Vehicles			
Acquisitions	460	434	315
Disposals	163	181	114
Plant and machinery			
Acquisitions	5,005	7,646	6,805
Disposals	356	153	270
Total net capital expendit	ure 5,533	8,711	7,472

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

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

							£ thousand
		1973	1974	1975	1976	19	977
200,5 11 E.M.	2,682 830 5834.	<sup>130</sup> esśjis	9/8/8	Increase	TRI DE AUSS	1 Chi 23 (191	Value at end of year
Materials, stores and fu		2,623	5,080	-1,925	4,653	3,226	22,469
Work in progress		3,785	4,567	-390	4,135	7,796	32,474
Goods on hand for sale	seprises control es s	474	721	4,675	445	7,064	19,334
Total		6,883	10,368	2,360	9,232	18,087	74,277

3

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

			£ thousand
	1976	1977	Sigar
	(2)	e tratitati	(b) subscription
	378	1,137	
	667	55	
	336	1	
	1,167	1,715	
	139	311	
	7,651	10,190	
	192	282	
8	9,195	12,502	905-2605

#### TABLE 4

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

Size group	Estab- lish-	Enter- prises	Employm	ent		Wages and sa	laries (f)		
(b)	ments	(c)							
			Total (d)	Opera- tives	Others (e)	Operatives		Others (e)	
	rain of stands	1976) 				Total	per head	Total	per head
	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£
1-10	82	78	435 )						
11-19	31	28	442)	1.000	104	400.000	30,070	100	
20-49	14	14	) 410)	1,209	350	2,616	2,164	1,178	3,36
50-99	5	5	320)				7 8 666 8		
100-199	5	5	643	479	162	1,109	2,315	545	3,36
200-299	9	8	2,222	1,704	516	3,549	2,083	1,687	3,26
300-399	4	4	1,292	1,031	261	2,758	2,675	953	3,65
400–999	5	5	2,650	1,949	701	4,510	2,314	2,262	3,22
1,000 and over	6	4	30,783	24,257	6,526	66,687	2,749	27,518	4,21

Total	161	147	39,197	30,629	8,516	81,229	2,652	34,143	4,009

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

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

(c) 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.

(d) Including working proprietors.

#### (e) Administrative, technical and clerical employees.

Total sales and work done (g)	Gross outpu	Gross value added at factor cost			
			Total	per head	Total
£ thousand	£ thousand	useuprit	£ thousand	<b>1</b> per cent of bend Kingdom	£ thousand
14,082	14,606		7,962	4,955	(j)
	. 1.88				
6,239	6,578		3,259	5,068	10,059(j)
19,282	19,638		10,471	4,712	9,363
14,435	14,720		6,939	5,371	6,144
21,798	23,311		12,425	4,689	11,391
291, <b>361</b>	303,205		155,044	5,037	140,533

otal sales nd work one (g)	Gross out;	out	Net output			Gross value added at factor cost	Pantan Kaj General General General	Net capital expenditure (h)	Total stocks and work in progress at end of year
			Total	per head	-	Total	per head		
thousand	£ thousan	d	£ thousand		per cen United Kingde	£ thousand	E to see an Bening	£ thousand	£ thousand
4,082	14,606		7,962	4,955		(j)	(j)	523	3,090
	. 1.88								
6,239	6,578		3,259	5,068		10,059(j)	4,471(j)	252	1,513
9,282	19,638		10,471	4,712		9,363	4,214	517	4,797
4,435	14,720		6,939	5,371		6,144	4,755	337	2,156
1,798	23,311		12,425	4,689		11,391	4,298	676	6,441
91,361	303,205		155,044	5,037		140,533	4,565	10,196	56,280
7,197								12,502	

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

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(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.

PA369.1

PA369.1

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

Area	Total employment (b)		Net capital expenditure (c)		Net Gross value output (d) added at factor cost (d)		factor cost i by establish 80 per cent	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	
							in the region		
							gross value a factor cost i		
	Thousands	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	£ thousand	percentage	Lo de Com	
2-12		5		Ũ					
Standard regions of England									
3,090	6.23	10	101 10204	4,9835	7,9622,6		808.41_14.806		
North	•	•	4101	•	*		-		
Yorkshire and Humberside	0.8	2.0	118	1.0	3,698	3,328	68.1		
East Midlands	0.2	0.5	16 01	0.1 800.8	961	848	17.7		
East Anglia	0.2	0.6	56	0.4	1,077	965	828 5.4		
South East	10.0	25.4	3,399	27.2	60,967	55,220	70.9		
South West	1.3	3.3	304	2.4	6,910	5,931	58.4		
West Midlands	891.07	* 4.565	*	*	*	*	*		
North West	5.5	14.0	1,274	10.2	28,822	24,607	11.6		
England	37.9	96.7	12,086	96.7	190,929	172,843	/		
Wales	*	*	*	*	*	*	*		
Scotland	0.5	1.4	267	2.1	1,760	1,436	60.1		
Great Britain	*	*	*	*	*	*	/		
Northern Ireland	*	*	*	*	*	*	*		
United Kingdom	39.2	100.0	12,502	100.0	196,101	177,490	/		

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

6

### TABLE 6

PA369.1

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

Accourt	nting year ended	Percentage of total returns received			
	9.747	per cent	Salara anala		
1977	April (a)	0.0			
	May	3.1			
	June	3.1			
	July	12.5			
	August	3.1			
	September	3.1			
	October	0.0			
	November	3.1			
	December	46.9			
1978	January	0.0			
	February	3.1			
	March (b)	21.9			

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

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

#### TABLE 7

nt and roy 1077/a by full and part-time employ

Sex	Full-time	Part-time	All employees		
	per cent	per cent	per cent		
Male	54	1 70 10 10 10 10 10	55		
Female	35	10	45		

(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom in minimum list heading 369 at mid-June, 1976, because 1977 information is not yet available. In the 1977 Census of Production the employment of the Electrical equipment for motor vehicles, cycles and aircraft industry represented 37 per cent of the employment of minimum list heading 369 as a whole.

per cent	and the purpose of the sec
0.0	
0.1	
0.1	
72.2	
0.1	
1.0	
0.0	
0.7	
22.9	
0.0	
0.1	
2.9	

#### Source: Department of Employment

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

		unit Unit	1977	
Gross output per head		£ .	9,747	
Net output per head		£	5,003	
Gross value added per head		£	4,528	
		TRALISTIC TRANSFORM	1001000	
ross value added as a percentage of g	ross output	%	46	
latio of gross output to stocks			5.1	
lages and salaries as a percentage of g	ross value added	%	65	
atio of operatives to administrative, technical and clerical mployees			3.6	
ages and salaries per operative		£	2,652	
ages and salaries per administrative, 1	technical and clerical			
mployee		£	4,009	
et capital expenditure per head		£	319	
et capital expenditure as a percentag		HindA ritid of the oddee borres of the April 1	7	

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

PA369.1

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

# ENERAL INFORMATION

# nges made for 1977

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

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

ecific changes are explained in the introductions to the industry orts or by footnotes to the tables.

sion of information relating to individual undertakings on 9(5)(b) of the Statistics of Trade Act 1947 states following provisions shall have effect with respect to any ort, summary or other communication to the public of nation obtained under the foregoing provisions of this Act n compiling any such report, summary or communication the ompetent 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, owever, 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". figure involved disclosure the contributor concerned was stimes asked to give permission for its publication. In the ority of cases permission was given. When it was refused and ere contributors were not approached the figure has been pressed, either by combining it with other figures, or as in the nal tables, by omitting the figure altogether.

e following symbols are used throughout the PA series of ness Monitors:

#### not available

nil or less than half the final digit shown gures cannot be shown owing to the risk of disclosing formation about individual enterprises evised

#### Inding of figures

ures in the tables have, where necessary, been rounded to the rest final digit. Where figures have been so rounded, the sum the constituent items may not always agree exactly with the al shown

#### ustrial classification

United Kingdom Standard Industrial Classification (SIC) was issued in 1948 and was subsequently revised in 1958 and 8. It exists to promote uniformity and comparability in the ial statistics of the United Kingdom. The general principles wed are those of the International Standard Industrial ification of all Economic Activities of the United Nations tistical Office but the United Kingdom SIC reflects the nisation and structure of industry and trade as it exists in the ied Kingdom. The SIC is a classification by activity and is a commodity classification. However, an index of all commodity dings for which sales data are provided in the Quarterly Business tors, is published in Business Monitor PO 1000.

### istical units

statistical unit for the purpose of the Census is the establishment <sup>ch</sup> is defined in the SIC as the smallest unit which can provide information normally required for an economic census, for No 13 May 1971. activities in their return

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

THE REGISTER

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

Further information about the statistical unit appeared in an article "The statistical unit in business inquiries" in Statistical News

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

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

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

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

#### Coverage

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

#### Regions

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

#### TERMS USED IN THE CENSUS REPORT

#### Average number employed

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

(a) administrative, technical and clerical employees (b) all other employees (operatives)

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

#### Working proprietors

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

#### Employees

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

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

#### Capital expenditure

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

#### (a) New building work

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

#### (b) Land and existing buildings

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

(c) Plant, machinery and vehicles

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

#### Cost of industrial services

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

#### Cost of non-industrial services

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

#### Gross output

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

#### Net output

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

#### Net output per head

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

#### Gross value added at factor cost

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

#### Gross value added at factor cost per head

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

omers; and of food, etc for any canteen covered by the stablishment's return. Transfers of goods to the establishment another department of the same firm not covered by the tablishment's return are included at a cost corresponding to the nated selling value recorded by the other department. Amounts vable to transport firms or credited to the firm's own transport artment for delivery of materials are excluded, as are all ases of machinery and plant charged to capital account. hases of goods for merchanting or factoring have been acted separately since 1973. The values shown exclude VAT. y include, in addition to the actual purchase price, the value packaging material charged to the establishment. The value of med goods or packaging material returned to suppliers and any discounts are excluded. Materials purchased duty-paid are uded at their duty-paid value, less any drawback, rebate, etc. e cost of transport is included only if it is included with the hase price in the firm's accounts. Imported goods are included their full delivered cost. If in the firm's accounts the transport ndocks or airport is not included in the cost of goods purchased, cost is entered at cif plus duty (if applicable). Leasing, ing and hire purchase charges are excluded.

#### sales of goods produced

les for the purposes of the annual censuses means deliveries on e of goods made by establishments in the United Kingdom red by the inquiry. Sales of goods made for these establishments outworkers or by other establishments from materials given out hem and sales of waste products are included. New building ork and machinery or other capital items produced by establishnts for hiring out or leasing are regarded as sales, the value luded in the return being that adopted in the establishments' nital asset accounts. Forward sales and canteen takings are excluded. Il sales in the period of the inquiry are included irrespective of en the goods were manufactured. Goods produced in one establishment and transferred either to ancillary departments not ngaged in production for which there are separate accounts, or to her establishment of the same firm not covered by the return, treated as sales by the producing establishment and valued as ar as possible as if they had been sold to an independent purchaser. ods transferred to wholesale or retail selling organisations, for ich separate accounts are kept are valued on the same basis he value shown for sales in the "net selling value" defined as the

ount (excluding VAT) charged to customers whether on an -works or delivered basis, after any trade discounts and agents' issions have been deducted. The cost of packing materials ss allowance for returnable cases is included. In industries where ducts attract Excise Duty the value stated is usually inclusive of duty if sold duty-paid and exclusive of duty if sold in bond exported

#### eipts for work done and industrial services rendered

gures for work done represent the amount charged for work ried out on materials supplied by a customer and include repair ork. Within certain industries this heading covers a wide variety of ivities, for example, within the food sector - butter packed on sion; within the textile industries - making up of garments, dressing and textile finishing; within printing and publishing paratory work on type-setting, block making and binding, Work ne is also significant in the electrical machinery and heavy eering industries, covering erection, installation and repair and bing work. Other activities within this heading include exploration ork, research and development, glass cutting and dressing and ing of timber

ustrial services rendered include repairs and maintenance, instation work, and technical research and studies for other anisations.

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

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

#### on-industrial services rendered

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

#### ods merchanted or factored

chanted goods are those (excluding canteen sales) sold without

Stocks and work in progress are not deducted.

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

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

Operating ratios

### having been subjected to any manufacturing process by the seller.

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

#### Employers' insurance and welfare contributions

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

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

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