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(15/42(HA25) (2) 42 R834

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Business Monitor

Report on the Census of Production

Explosives and fireworks



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PA279.3 Business Monitor

A publication of the Government Statistical Service

Report on the Census of Production 1979

Explosives and fireworks

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

PA1001	Introductory notes	PA369.1	Electrical equipment for motor vehicles, cycles
PA101	Coal mining	DA260.2	and aircraft
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PA262 PA263	Mineral oil refining Lubricating oils and greases	PA412	Spinning and doubling on the cotton and flax systems
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	Explosives and fireworks		Miscellaneous textile industries
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PA311	Iron and steel (general)	PA442	Men's and boys' tailored outerwear
PA312	Steel tubes	PA443	Women's and girls' tailored outerwear
PA313	Iron castings, etc.	PA444	Overalls and men's shirts, underwear, etc.
PA321	Aluminium and aluminium alloys	PA445	Dresses, lingerie, infants' wear, etc.
PA322	Copper, brass and other copper alloys	PA446	Hats, caps and millinery
PA323	Miscellaneous base metals	PA449.1 PA449.2	Corsets and miscellaneous dress industries
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	Compressors and fluid power equipment	PA462	Pottery
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PA338	Office machinery	PA471 PA472	Furniture and upholstery
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	Refrigerating machinery, space-heating,	PA474	Shop and office fitting
1000.0	ventilating and air-conditioning equipment	PA475	Wooden containers and baskets
PA339.5	Scales and weighing machinery and portable	PA479	Miscellaneous wood and cork manufactures
	power tools	PA481	Paper and board
PA339.7	Food and drink processing machinery and	PA482.1	Cardboard boxes, cartons and fibre-board packing cases Packaging products of paper and associated materials
DA0000	packaging and bottling machinery	PA482.2	Manufactured stationery
PA339.9 PA341	Miscellaneous (non-electrical) machinery Industrial (including process) plant and steelwork		Wallcoverings
PA341	Ordnance and small arms	PA484.2	Miscellaneous manufactures of paper and board
	Ball, roller, plain and other bearings	PA485	Printing, publishing of newspapers and periodicals
PA349.2	Precision chains and other mechanical engineering	PA489	General printing and publishing
PA351	Photographic and document copying equipment	PA491	Rubber
PA352	Watches and clocks	PA492	Linoleum, plastics floor-covering, leathercloth, etc.
PA353	Surgical instruments and appliances	PA493	Brushes and brooms Toys, games and children's carriages
PA354	Scientific and industrial instruments and systems		Sports equipment
PA361 PA362	Electrical machinery Insulated wires and cables	PA494.3	Miscellaneous stationers' goods
PA363	Telegraph and telephone apparatus and	PA496	Plastics products
	equipment	PA499.1	Musical instruments
PA364	Radio and electronic components		2 Miscellaneous manufacturing industries
	Gramophone records and tape recordings	PA500	Construction
PA365.2	Broadcast receiving and sound reproducing	PA601	Gas
DAGGE	equipment	PA602 PA603	Electricity Water supply
PA366 PA367	Electronic computers Radio, radar and electronic capital goods		Summary tables
PA368	Electrical appliances primarily for domestic use	171002	

The information in this report relates to establishments classified to the Explosives and fireworks industry, minimum list heading 279.3 in the Standard Industrial Classification (revised 1968). The activities of the industry include:—

Manufacturing explosives, detonators, fuses (not shell fuses), percussion caps, flares, signal rockets, etc. Manufacturing fireworks and matches and live ammunition. Filling bombs, cartridges, shells etc. Establishments making live military ammunition which also make the cases for it are excluded, and are classified to minimum list heading 342, reported as part PA342.

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, 1975–1979
All United Kingdom establishments classified to the industry (a)

	Unit	1975	1976	1977	1978	1979
Enterprises	Number	25	25	27	28	28
Establishments		40	39	41	42	. 41
Sales of goods produced, receipts for york done and industrial services endered	£ thousand	182,594	228,199	314,464	327,162	324,703
Capital goods produced for establishments' own use		914	804	902	1,110	1,578
Non-industrial services rendered	,,	560	380	789	787	890
Goods merchanted or factored	,,	2,911	5,241	3,698	4,338	2,986
Total sales and work done (c)		186,979	234,623	319,853	333,397	330,158
ncrease during the year, work in rogress and goods on hand for sale	,,	15,735	22,285	28,323	9,357	19,965
Gross output	"	202,714	256,909	348,176	342,755	350,123
urchases of materials for use in pro- uction, and packaging and fuel (b)	"	107,414	149,312	175,441	182,707	200,363(
urchases of goods for merchanting or actoring		2,439	3,970	3,782	3,413	(c)
ncrease during the year, stocks of naterials, stores and fuel	n	1,760	4,123	6,882	5,010	1,888
ost of industrial services received		2,521	3,672	5,382	6,624	7,522
Net output	"	92,100	104,078	170,453	155,021	144,127
otal employment (d)	Thousands	18.2	18.9	19.6	18.9	18.5
Net output per head	£	5,055	5,495	8,693	8,206	7,787
yments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	262(e)	127	241	319	579
Rents of industrial and commercial buildings	,,	(e)	153	855	854	688
Commercial insurance premiums	"	1,824	2,384	2,962	3,290	1,388
Bank charges	"	18	34	70	118	121
Other non-industrial services (f)	"	3,913	5,845	8,560	9,599	11,335
censing of motor vehicles		26	30	34	38	48
ates, excluding water rates	" .	1,313	1,394	1,521	1,557	1,770
Gross value added at factor cost		84,744	94,112	156,210	139,248	128,198
Gross value added at factor cost per head	£	4,656	4,969	7,967	7,371	6,926

⁽a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census. Satisfactory returns accounted for 94 per cent of employment within the industry.

TABLE 2

Capital expenditure, 1975—1979
All United Kingdom establishments classified to the industry (a)(b)

					£ tho	usar
	1975	1976	1977	1978	1979	
Land and buildings		9				
New building work	2,252	2,472	2,602	6,396	8,182	
Land and existing buildings						
Acquisitions	1,071	88	890	287	198	
Disposals	258	36	117	93		
/ehicles						
Acquisitions	456	478	684	421	1,136	
Disposals	2,7	86	93	87	101	
Plant and machinery						
Acquisitions	4,619	7,588	7,659	10,356	16,535	
Disposals	159	217	79	187	501	
Total net capital expenditure	7,954	10,287	11,545	17,095	25,448	

⁽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, 1975–1979
All United Kingdom establishments classified to the industry (a)

						£ thousand
	1975	1976	1977	1978		1979
	England for the C		Increase	(MA)211		Value at end of year
	and the same of th	Charles Car Carry		Harris (150), ilk from	and the second	
Materials, stores and fuel	1,760	4,123	6,882	5,010	1,888	31,469
Work in progress	12,199	21,142	26,483	6,531	18,240	98,175
Goods on hand for sale	3,536	1,144	1,840	2,827	1,725	18,433
Total	17,495	26,409	35,206	14,368	21,854	148,076

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

⁽b) Including excise duty payable on materials less allowances receivable on materials exported etc.

⁽c) Purchases of goods for merchanting or factoring included in purchases of materials for use in production and packaging and fuel.

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

⁽e) Rents of industrial and commercial buildings (not recorded separately) included in hire of vehicles, plant and machinery.

⁽f) For 1975—1978 transport of goods by road (within the United Kingdom) was not recorded separately. For 1979 the amount payable was £1,978 thousand.

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

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Analysis of establishments by size, 1979 All United Kingdom establishments classified to the industry (a)

Size group (b)	Estab- lish- ments	Enter- prises (c)	Employment			Wages and salaries (f)				
		1	Total (d)	Opera- tives	Others (e)	Operatives	Operatives		Others (e)	
						Total	per head	Total £ thousand	per head	
	Number	Number	Number	Number	Number	£ thousand	£		£	
1–10	14	13	65)							
11–19	3	3	40)	387	94	1,136	2,936	405	4,308	
20-99	8	8	396)							
100–299	5	4	1,054	745	309	2,779	3,730	1,802	5,832	
300–999	5	4	3,024	2,433	591	10,055	4,133	3,501	5,924	
1,000 and over	6	3	13,930	10,564	3,366	43,856	4,151	20,435	6,071	

Total	41	28	18,509	14,129	4,360	57,826	4,093	26,142	5,996

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

Total sales and work done (g)	Gross output	Net output	Net output		77.7	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
7,223	7,414	4,142	8,267	(j)	(j)	, 52	1,484
15,906	16,213	5,654	5,364	7,926(j)	5,097(j)	186	3,171
54,976	56,217	27,248	9,011	23,784	7,865	3,512	15,897
252,053	270,279	107,082	7,687	96,489	6,927	21,698	127,524

330,158	350,123	144,127	7.787	128,198	6.926	25,448	148,076
	000,120			120,100	0,520	20,110	140,070

The cost of employers' contributions to national insurance, pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £13,192 thousand.

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

⁽c) The count of enterprises shown in each row represents the number of enterprises, irrespective of size, owning the establishments shown in the previous column, i.e. the number of enterprises owning the establishments within the size group indicated by the row heading. It should be noted that because an enterprise may own establishments in more than one size group, the sum of the individual enterprise counts may exceed the total for the industry.

⁽d) Including working proprietors.

⁽e) Administrative, technical and clerical employees.

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.

⁽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 1-299.

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TABLE 6

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Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1979 All United Kingdom establishments classified to the industry (a)

Area .	rea Total employment (b)		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 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	- 10	- **	-	-	_	-	-
Yorkshire and Humberside			*	i galesi		•	
East Midlands	1.7	9.2	4,713	18.5	•		•
East Anglia	0.1	0.4	2		436	386	-
South East	1.0	5.4	434	1.7	•		•
South West					•	•	•
West Midlands	-	_	-	_	-	-	-
North West	•	•	•		•	•	
England	10.7	57.6	16,786	66.0	83,798	74,612	
Wales	•	*	•	*		•	•
Scotland	•		•		•	•	*
Great Britain	18.5	100.0	25,448	100.0	144,127	128,198	
Northern Ireland		-	_	· <u>-</u>	-	-	-
United Kingdom	18.5	100.0	25,448	100.0	144,127	128,198	

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

(b) Average number employed during the year, 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.

percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments, 1979

Account	ting year ended	Percentage of total returns received	Percentage of total number employed	
		per cent	per cent ·	
1979	April (a)		-	
	May			
	June	6.2	0.7	
	July		-	
	August			
	September	6.2	2.1	
	October	-	-	
	November	12.5	1.9	
	December	18.8	24.2	
980	January			
	February		le em la mer la lagrassia de la martina de l	
	March (b)	56.2	71.1	

(a) From 6th April.

(b) Including returns made for twelve-month period ended 1st to 5th April 1980.

TABLE 7

Percentage analysis of employees, by full and part-time employment and sex, 1977(a) Other chemical industries, minimum list heading 279.

Sex	Full-time	Part-time	All employees		
	per cent	per cent	per cent		
Male	63	1	64		
Female	29	7	36		

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom in minimum list heading 279 at mid-June, 1977, the latest date for which information is available. In the 1977 Census of Production the employment of the Explosives and fireworks industry represented 29 per cent of the employment of minimum list heading 279 as a whole.

Operating ratios, 1978–1979
All United Kingdom establishments classified to the industry (a)

	Unit	1978	1979
Gross output per head	£	18,144	18,916
Net output per head	£	8,206	7,787
Gross value added per head	£	7,371	6,926
Gross value added as a percentage of gross output	%	41	37
Ratio of gross output to stocks (b)		2.7	2.4
Wages and salaries as a percentage of gross value added	%	52	65
Ratio of operatives to administrative, technical and clerical employees		3.3	3.2
Wages and salaries per administrative, technical and clerical employee	£	5,167	5,996
Wages and salaries per operative	£	3,466	4,093
Net capital expenditure per head	£	905	1,375
Net capital expenditure as a percentage of gross value added	%	12	20

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

NOTES

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, 1979.

GENERAL INFORMATION

Changes made for 1979

The Census for 1979 is in line with similar inquiries being conducted in other member countries of the European Community.

The census differed from the 1978 census in three respects. A question on the leasing of capital assets was removed from the form and a question on road transport costs was added. The sample of units in the 10 to 19 employment size band included for the 1978 census was not repeated.

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, 1968 and 1980. It exists to promote uniformity and comparability in the official statistics of the United Kingdom.

Prior to the 1980 revision the general principles followed were those of the International Standard Industrial Classification of all Economic Activities of the United Nations Statistical Office but the United Kingdom SIC has reflected the organisation and structure of industry and trade as it existed in the United Kingdom. For the 1980 revision an attempt was made to align the United Kingdom classification as closely as practicable with NACE, the classification in use by the Statistical Office of the European Community. The SIC is a classification by activity and is not a commodity classification. An index, based on the 1968 SIC for all commodity headings for which sales data are provided in the Quarterly Business Monitors is published in Business Monitor PO 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 (eg steel making or sugar refining). Typically the establishment embraces all the activities carried on at a single address eg a mine or a factory, including those which are ancillary to the principal activities. Frequently distinct activities characteristic of different industries are carried on at one address, but normally these are not classified separately and the whole establishment is classified according to the main activity. If, however, the required range of data can be provided for each activity, each is taken to constitute a separate establishment. Sometimes activities which are conducted as a single business are carried on at a number of addresses. Where this is so, businesses are asked to provide the full range of information in respect of each address, whether or not the activities are different Their activities may, however, be integrated to such an extent that they constitute a single establishment. In the latter case the establishment is defined to cover the combined activities at these addresses (termed local units). Separate figures are obtained of employment and net capital expenditure at each unit in order to compile regional tables

Efforts are made by the Business Statistics Office (BSO) to ensure, by negotiating with respondents, that the return from an establishment does not cover local units in more than one of the countries of the United Kingdom

Establishments are asked to exclude from their returns particulars relating to any department not engaged in production 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 register.

Coverage

In recent censuses returns have been required from all establishments employing 20 or more. For the 1979 Census in 68 selected manufacturing industries coverage of establishments in the 20 to 49

⁽b) Stocks include materials, stores and fuel, work in progress and goods on hand for sale at the end of the business year.

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.

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:

(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:

(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 outpu

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, during 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 est-

ablishment's return are included at a cost corresponding to the estimated selling value recorded by the other department. Amounts payable to transport firms or credited to the firm's own transport department for delivery of materials are excluded, as are all purchases of machinery and plant charged to capital account. Purchases of goods for merchanting or factoring have been collected separately since 1973. The values shown exclude VAT. They include, in addition to the actual purchase price, the value of packaging material charged to the establishment. The value of returned goods or packaging material returned to suppliers and any trade discounts are excluded. Materials purchased duty-paid are included at their duty-paid value, less any drawback, rebate, etc. The cost of transport is included only if it is included with the purchase price in the firm's accounts. Imported goods are included at their full delivered cost. If in the firm's accounts the transport from docks or airport is not included in the cost of goods purchased, the cost is entered at cif plus duty (if applicable). Leasing, renting and hire purchase charges are excluded.

Sales of goods produced

Sales for the purposes of the annual censuses means deliveries on sale of goods made by establishments in the United Kingdom covered by the inquiry. Sales of goods made for these establishments by outworkers or by other establishments from materials given out to them and sales of waste products are included. New building work and machinery or other capital items produced by establishments for hiring out or leasing are regarded as sales, the value included in the return being that adopted in the establishments' capital asset accounts. Forward sales and canteen takings are excluded. All sales in the period of the inquiry are included irrespective of when the goods were manufactured. Goods produced in one establishment and transferred either to ancillary departments not engaged in production for which there are separate accounts, or to another establishment of the same firm not covered by the return, are treated as sales by the producing establishment and valued as far as possible as if they had been sold to an independent purchaser. Goods transferred to wholesale or retail selling organisations, for which separate accounts are kept are valued on the same

The value shown for sales is the "net selling value" defined as the amount (excluding VAT) charged to customers whether on an exworks 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 establishment's 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 excluded.

Remuneration paid to outworkers

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

Employers' insurance and welfare contributions

This item includes employers' contributions to national insurance 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 ratio

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 resultsfor 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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