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1977

Business Statistics Office

Business Monitor

Report on the Census of Production

Miscellaneous chemicals





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.

Government Statistical Service

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.

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PA271.3 Business Monitor

A publication of the Government Statistical Service

Report on the Census of Production 1977

Miscellaneous chemicals

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

Petroleum and natural gas

Milk and milk products

Bread and flour confectionery

Fruit and vegetable products

Vegetable and animal oils and fats

Spirit distilling and compounding

Coke ovens and manufactured fuel

Pharmaceutical chemicals and preparations

Synthetic resins and plastics materials and

Mineral oil refining Lubricating oils and greases

Animal and poultry foods

PA229.2 Starch and miscellaneous foods

Brewing and malting

PA239.2 British wines, cider and perry

Inorganic chemicals

Toilet preparations

Soap and detergents

Dyestuffs and pigments

PA279.2 Formulated adhesives, gelatine, etc.

PA279.7 Photographic chemical materials

Iron and steel (general)

Aluminium and aluminium alloys

Metal-working machine tools

PA333.3 Compressors and fluid power equipment

Textile machinery and accessories

Mechanical handling equipment

PA339.3 Refrigerating machinery, space-heating, ventilating and air-conditioning equipment

PA339.7 Food and drink processing machinery and packaging and bottling machinery PA339.9 Miscellaneous (non-electrical) machinery

PA339.5 Scales and weighing machinery and portable

Construction and earth-moving equipment

PA339.2 Printing, bookbinding and paper goods machinery

Industrial (including process) plant and steelwork

Copper, brass and other copper alloys

Miscellaneous base metals
Agricultural machinery (except tractors)

synthetic rubber

PA279.3 Explosives and fireworks

PA279.6 Surgical bandages, etc.

Steel tubes

PA279.4 Formulated pesticides, etc.

Iron castings, etc.

Industrial engines

Office machinery

PA339.1 Mining machinery

Fertilizers

Polishes

PA279.5 Printing ink

Stone and slate quarrying and mining

Chalk, clay, sand and gravel extraction

Miscellaneous mining and quarrying

Bacon curing, meat and fish products

Cocoa, chocolate and sugar confectionery

PA1001 Introductory notes

Coal mining

Grain milling

Biscuits

Sugar

Margarine

Soft drinks

Tobacco

PA271.2 Organic chemicals

Paint

PA271.3 Miscellaneous chemicals

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PA351

PA333.1 Pumps PA333.2 Valves

PA369.1	Electrical equipment for motor vehicles, cycles
	and aircraft

PA369.2 Primary and secondary batteries

PA369.4 Electric lamps, electric light fittings, wiring accessories, etc.

PA380 Wheeled tractor manufacturing

Motor cycle, tricycle and pedal cycle manufacturing PA382 Aerospace equipment manufacturing and repairing PA383

PA393 Bolts, nuts, screws, rivets, etc. PA394 Wire and wire manufactures

PA396

PA399.1

PA411 Production of man-made fibres

PA412 Spinning and doubling on the cotton and flax systems

PA414 Woollen and worsted

PA415 Jute

Rope, twine and net

PA418

PA419 Carpets PA421

Household textiles and handkerchiefs

PA422.2 Canvas goods and sacks and other made-up textiles

PA441

Men's and boys' tailored outerwear PA443

Overalls and men's shirts, underwear, etc. Dresses, lingerie, infants' wear, etc. PA445

PA446

PA449 1 Corsets and miscellaneous dress industries

PA450 Footwear

PA461.1 Refractory goods

PA461.2 Building bricks and non-refractory goods

PA462 Pottery PA463

PA464 Cement

PA469.1 Abrasives

PA472 Furniture and upholstery

PA475

PA481

PA349.2 Precision chains and other mechanical engineering Photographic and document copying equipment PA491

Watches and clocks PA353 Surgical instruments and appliances

Ball, roller, plain and other bearings

PA354 Scientific and industrial instruments and systems

Ordnance and small arms

PA361 Electrical machinery PA362 Insulated wires and cables

PA363 Telegraph and telephone apparatus and equipment

Radio and electronic components

PA365 1 Gramophone records and tape recordings PA365.2 Broadcast receiving and sound reproducing

equipment

Electronic computers

PA367 Radio, radar and electronic capital goods

Electrical appliances primarily for domestic use

Shipbuilding and marine engineering PA381.1 Motor vehicle manufacturing Trailers, caravans and freight containers

Locomotives, railway track equipment, railway carriages. PA384 wagons and trams

PA390 Engineers' small tools and gauges PA391

Hand tools and implements Cutlery, spoons, forks and plated tableware, etc. PA392

PA395 Cans and metal boxes

Jewellery and precious metals
Metal furniture

PA399.5 Drop forgings, etc. PA399.6 Metal hollow-ware PA399.8 Miscellaneous metal manufacture

PA413 Weaving of cotton, linen and man-made fibres

PA416

PA417.1 Hosiery and other knitted goods

PA417.2 Warp knitting

Narrow fabrics

PA423 Textile finishing PA429.1 Asbestos

PA429.2 Miscellaneous textile industries

PA431 Leather (tanning and dressing) and fellmongery

Leather goods PA433

Weatherproof outerwear

Women's and girls' tailored outerwear PA444

PA449.2 Gloves

PA469.2 Miscellaneous building materials and mineral products PA471 Timber

Bedding, etc. PA474 Shop and office fitting

Wooden containers and baskets
Miscellaneous wood and cork manufactures

PA482.1 Cardboard boxes, cartons and fibre-board packing cases PA482.2 Packaging products of paper and associated materials

Manufactured stationery PA484 1 Wallcoverings PA484.2 Miscellaneous manufactures of paper and board

PA485 Printing, publishing of newspapers and periodicals PA489 General printing and publishing Rubber

PA492 Linoleum, plastics floor-covering, leathercloth, etc. Brushes and brooms PA494 1 Toys, games and children's carriages

PA494.3 Sports equipment Miscellaneous stationers' goods PA496 Plastics products

PA499.1 Musical instruments PA499.2 Miscellaneous manufacturing industries

PA500 Construction PA601 Gas PA602 Electricity PA603 Water supply Summary tables PA271.3 MISCELLANEOUS CHEMICALS

The information in this report relates to establishments classified to the Miscellaneous chemicals industry, minimum list heading 271.3 in the Standard Industrial Classification (revised 1968). The activities of the industry include:—

Manufacturing chemical mixtures, excluding chemical compounds containing impurities, or to which water, solvents or stabilisers have been added solely for reasons of safety, transport or preservation. Certain organic or inorganic compounds used mainly for specific end-uses (such as hydrosulphites, hypochlorites, simple phosphate or phthalate plasticiser chemicals), nuclear fuels, and radio-active elements, compounds and isotopes are included. The manufacture of pharmaceutical chemicals and preparations, dyestuffs and pesticides are 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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PA271.3

TABLE 2

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

PA271.3

					£tr	nousand
	1973	1974	1975	1976	1977	2.5
Land and buildings				(b)	a nection of the	
New building work	4,128	5,576	10,502	11,085	18,438	
Land and existing buildings						
Acquisitions	703	4,789	1,063	1,144	3,410	
Disposals	1,241	480	153	403	120	
Vehicles						
Acquisitions	1,544	1,950	3,995	2,656	4,129	
Disposals	480	575	1,411	727	1,058	
Plant and machinery						
Acquisitions	18,609	25,774	44,036	48,476	66,136	
Disposals	306	172	590	5,148	252	
Total net capital expenditure	22,955	36,862	57,442	57,084	90,682	

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

TABLE 3

Stocks and work in progress, 1973—1977 All United Kingdom establishments classified to the industry (a)

77		£ thousand
	7	

	1973	1974	1975	1976	1	977
	B.H.RES BENCE	Speier	Increase	6.73	80.500 200	Value at end of year
Materials, stores and fuel	4,938	21,580	-544	21,979	21,866	121,605
Work in progress	11,601	16,497	31,878	43,104	43,560	172,291
Goods on hand for sale	2,420	18,025	6,536	9,793	12,499	80,887
Total	18,958	56,103	37,870	74,876	77,924	374,784

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

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

	Unit	1973	1974	1975	1976	1977
Enterprises	Number	334	364	368	383	401
Establishments		383	411	420	439	453
Sales of goods produced	£ thousand	523,708	676,636	754,988	936,980	1,176,847
Receipts for work done and industrial services rendered		(b)	(b)	(b)	63,446	(b)
Capital goods produced for establishments' own use		4,358	3,450	5,865	7,567	11,501
Non-industrial services rendered	"	4,009	3,562	1,979	3,225	3,487
Goods merchanted or factored	"	61,195	89,701	121,284	112,709	177,947
Total sales and work done (c)		593,270	773,349	884,116	1,123,926	1,369,781
Increase during the year, work in progress and goods on hand for sale	"	14,020	34,523	38,414	52,897	56,058
Gross output	"	607,291	807,872	922,529	1,176,823	1,425,840
Purchases of materials for use in production, and packaging and fuel	,,	326,584	458,483	442,843	622,533	688,986
Purchases of goods for merchanting or factoring	"	48,212	73,867	96,888	95,915	150,054
Increase during the year, stocks of materials, stores and fuel	"	4,938	21,580	-544	21,979	21,866
Cost of industrial services received	"	9,395	14,778	20,406	28,972	30,069
Excise payments, etc. (NET)	".	-255	196	-64	-1,127	6
Net output	"	228,292	282,128	361,914	452,509	578,603
Total employment (d)	Thousands	36.4	38.7	39.5	41.5	41.9
Net output per head	£	6,278	7,294	9,159	10,904	13,818
Payments for non-industrial services						
Hire of vehicles, plant and machinery	£ thousand	1,600	2,044	2,257	1,763	3,316
Rents of industrial and commercial buildings	"	(e)	(e)	(e)	1,194	1,882
Commercial insurance premiums	"	2,600	2,995	4,007	4,898	5,966
Bank charges	"	171	235	234	846	755
Other non-industrial services	"	16,827	18,863	23,477	34,714	42,018
Licensing of motor vehicles	,,	126	172	194	250	281
Rates, excluding water rates	"	2,998	4,211	5,883	6,856	6,685
Gross value added at factor cost	"	203,970	253,609	325,862	401,989	517,701
Gross value added at factor cost per head	£	5,609	6,556	8,247	9,686	12,364

Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons. Satisfactory returns accounted for 87 per cent of employment within the industry. (a)

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

⁽b) Included in sales of goods produced.

Details of manufacturers' quarterly sales of principal products are published regularly in Business Monitor PQ271.3.

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

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

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

	Estab-	Enter-	Employment		Wages and salaries (f)					
group (b)	lish- ments	prises (c)								
			Total	Opera- tives	Others (e)	Operatives		Others (e)	Others (e)	
			(d)	11403		Total	per head	Total	per head	
0.5	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£	
1–10	227	219	1,038)							
11-19	57	57	798)							
20-49	62	62	1,863)	3,488	3,316	11,255	3,227	14,184	4,277	
50-99	48	46	3,186)							
100-199	23	21	3,472	1,918	1,554	7,078	3,690	6,710	4,318	
200-299	11	11	2,717	1,279	1,438	4,960	3,878	6,516	4,531	
300-499	7	7	2,858	1,435	1,423	5,983	4,170	5,805	4,079	
500-999	9	8	6,050	3,291	2,759	11,883	3,611	12,531	4,542	
1,000 and over	9	6	19,891	11,019	8,872	41,327	3,751	41,581	4,687	

Total	453	401	41,873	22,430	19,362	82,486	3,677	87,326	4,510

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

Total sales and work done (g)	Gross output Net output			Gross value added at factor cost	added at		Total stocks and work in progress at end of year
		Total	per head	Total	per head		
£ thousand	£ thousand	£ thousand	£	£ thousand	£	£ thousand	£ thousand
284,418	290,027	102,116	14,832	(j)	(j)	12,435	49,143
163,639	166,868	70,421	20,283	154,239(j)	14,892(j)	7,827	29,274
111,839	112,639	37,836	13,926	32,282	11,882	3,990	17,395
127,084	132,424	51,079	17,872	45,975	16,087	4,799	26,186
246,823	250,113	98,264	16,242	87,557	14,472	10,401	31,123
435,978	473,768	218,886	11,004	197,647	9,937	51,230	221,663

1,369,781	1,425,840	578,603	13,818	517,701	12,364	90,682	374,784

⁽f) The cost of employers' contributions to national insurance, pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £36,916 thousand.

⁽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.

⁽g) 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.

⁽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.

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	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	
		0.00	Total Market	Dear The Control of t	Commence of the Commence of th	170 1800 1800	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	*	*	*	*	*	*	*	
Yorkshire and Humberside	1.7	4.1	4,091	4.5	26,304	23,015	70.0	
East Midlands	*	*	*	*	*	*	*	
East Anglia	1.8	4.2	2,267	2.5	20,942	18,981	68.5	
South East	8.9	21.2	13,604	15.0	130,829	115,859	61.4	
South West	1.4	3.4	2,371	2.6	14,481	12,628	80.2	
West Midlands	2.6	6.3	4,078	4.5	34,189	30,215	53.3	
North West	15.7	37.5	21,695	23.9	212,244	191,116	92.6	
England	39.2	93.6	81,830	90.2	522,543	466,258		
Wales	1.6	3.9	4,674	5.2	34,564	*	*	
Scotland	1.0	2.4	4,178	4.6	21,496	*	*	
Great Britain	41.9	100.0	90,682	100.0	578,603	517,701		
Northern Ireland	-	_	-	_	-	_	_	
United Kingdom	41.9	100.0	90,682	100.0	578,603	517,701		

(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) 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)

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

Account	ing year ended	Percentage of total returns received	Percentage of total number e	employed
—		per cent	per cent	pen Kanduh ayak
1977	April (a)	0.0	0,0	
	May	0.8	0.2	
	June	3.2	0.7	
	July	0.8	0.1	
	August	0.0	0.0	
	September	2.4	0.4	
	October	4.0	2.0	
	November	3.2	2.2	
	December	62.9	49.5	
1978	January	4.0	0.9	
	February	2.4	4.6	
	March (b)	16.1	39.5	

From 6th April.

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

TABLE 7

Percentage analysis of employees, by full and part-time employment and sex, 1977(a) General Chemicals industries, minimum list heading 271.

Sex	Full-time	Part-time	All employees	All employees		
	per cent	per cent	per cent	(84)		
Male	84	0	84			
Female	13	3	16			

Source: Department of Employment

The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom in minimum list heading 271.3 at mid-June 1976, because 1977 information is not yet available. In the 1977 Census of Production the employment of the Miscellaneous Chemicals industry represented 37 per cent of the employment of minimum list heading 271 as a whole.

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

			Unit	1977	
Gross output per head			£	34,052	
Net output per head			£	13,818	
Gross value added per head			£	12,364	
Gross value added as a percentage of gro		%	36		
dross variae added as a percentage or gros	output		0.0	50	
Ratio of gross output to stocks				3.8	
Vages and salaries as a percentage of gross value added			%	33	
Ratio of operatives to administrative, technical and clerical					
employees				1.2	
Wages and salaries per operative			£	3,677	
Nages and salaries per administrative, technical and clerica					
employee			£	4,510	
Net capital expenditure per head			£	2,166	
let capital expenditure as a percentage o			%	18	

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

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, 1977.

GENERAL INFORMATION

Changes made for 1977

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

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

Specific changes are explained in the introductions to the industry reports or by footnotes to the tables.

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". a figure involved disclosure the contributor concerned was ometimes asked to give permission for its publication. In the najority 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.

Rounding of figures

Figures in the tables have, where necessary, been rounded to the nearest final digit. Where figures have been so rounded, the sum of the constituent items may not always agree exactly with the total shown.

Industrial classification

The United Kingdom Standard Industrial Classification (SIC) was first issued in 1948 and was subsequently revised in 1958 and 1968. It exists to promote uniformity and comparability in the official statistics of the United Kingdom. The general principles followed are those of the International Standard Industrial Classification of all Economic Activities of the United Nations Statistical Office but the United Kingdom SIC reflects the organisation and structure of industry and trade as it exists in the United Kingdom. The SIC is a classification by activity and is not a commodity classification. However, an index of all commodity headings for which sales data are provided in the Quarterly Business Monitors, is published in Business Monitor PQ 1000.

Statistical units

The statistical unit for the purpose of the Census is the establishment which is defined in the SIC as the smallest unit which can provide the information normally required for an economic census, for

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 No 13 May 1971

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. 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.

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 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.

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.

Employee

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 subjet. 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, semi-manufactured 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

ustomers; and of food, etc for any canteen covered by the stablishment's return. Transfers of goods to the establishment om another department of the same firm not covered by the etablishment's return are included at a cost corresponding to the stimated selling value recorded by the other department. Amounts payable to transport firms or credited to the firm's own transport epartment for delivery of materials are excluded, as are all rchases of machinery and plant charged to capital account. rchases of goods for merchanting or factoring have been lected separately since 1973. The values shown exclude VAT. they include, in addition to the actual purchase price, the value f packaging material charged to the establishment. The value of rurned goods or packaging material returned to suppliers and any rade discounts are excluded. Materials purchased duty-paid are cluded at their duty-paid value, less any drawback, rebate, etc. The cost of transport is included only if it is included with the urchase price in the firm's accounts. Imported goods are included t their full delivered cost. If in the firm's accounts the transport romdocks or airport is not included in the cost of goods purchased, the cost is entered at cif plus duty (if applicable). Leasing, enting 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 overed by the inquiry. Sales of goods made for these establishments ov 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 ncluded 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 nother establishment of the same firm not covered by the return, are treated as sales by the producing establishment and valued as ar as possible as if they had been sold to an independent purchaser. Goods transferred to wholesale or retail selling organisations, for which separate accounts are kept are valued on the same basis.

The value shown for sales in 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, together with a margin of overhead costs and profits. Progress payments made to sub-contractors 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, 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.

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.

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 the industry, including exempted 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 practise with regard to stock valuation, may affect comparability in some respects.

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