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Business Statistics Office

Business Monitor

Report on the Census of Production

Synthetic resins and plastics materials and synthetic rubber



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Business Monitor

A publication of the Government Statistical Service

Report on the Census of Production 1976

Synthetic resins and plastics materials and synthetic rubber

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

PA365.2

PA366

PA367

PA368

equipment

Electronic computers

Broadcast receiving and sound reproducing

Radio, radar and electronic capital goods

Electrical appliances primarily for domestic use

PA276 SYNTHETIC RESINS AND PLASTICS MATERIALS AND SYNTHETIC RUBBER

PA369.1 Electrical equipment for motor vehicles, cycles PA1001 Introductory notes and aircraft PA369.2 Primary and secondary batteries Stone and slate quarrying and mining PA 102 Chalk, clay, sand and gravel extraction PA369.4 Electric lamps, electric light fittings, wiring PA103 Petroleum and natural gas accessories, etc. Shipbuilding and marine engineering PA 109 Miscellaneous mining and quarrying PA380 Wheeled tractor manufacturing PA211 Grain milling PA381.1 Motor vehicle manufacturing PA212 Bread and flour confectionery PA381.2 Trailers, caravans and freight containers PA213 Biscuits PA382 Motor cycle, tricycle and pedal cycle manufacturing PA214 Bacon curing, meat and fish products Milk and milk products PA383 Aerospace equipment manufacturing and repairing Locomotives, railway track equipment, railway carriages, PA216 Sugar Cocoa, chocolate and sugar confectionery wagons and trams PA217 Fruit and vegetable products PA390 Engineers' small tools and gauges PA391 Hand tools and implements Cutlery, spoons, forks and plated tableware, etc. PA219 Animal and poultry foods Vegetable and animal oils and fats PA221 PA393 Bolts, nuts, screws, rivets, etc Margarine PA229.2 Starch and miscellaneous foods PA394 Wire and wire manufactures PA395 Brewing and malting PA231 Cans and metal boxes PA396 Jewellery and precious metals Metal furniture PA239. Spirit distilling and compounding PA399 PA399.5 Drop forgings, etc. PA239.2 British wines, cider and perry PA399.6 Metal hollow-ware Tobacco PA261 Coke ovens and manufactured fuel PA399.8 Miscellaneous metal manufacture PA411 PA262 Mineral oil refining Production of man-made fibres Lubricating oils and greases PA263 Spinning and doubling on the cotton and flax systems PA271 Inorganic chemicals PA413 Weaving of cotton, linen and man-made fibres Organic chemicals PA414 PA271.2 Woollen and worsted Miscellaneous chemicals PA415 Jute PA272 Pharmaceutical chemicals and preparations PA416 Rope, twine and net PA273 Toilet preparations PA417.1 Hosiery and other knitted goods PA274 PA417.2 Warp knitting PA275 Soap and detergents PA418 Lace PA276 Synthetic resins and plastics materials and PA419 Carnets Narrow fabrics PA277 Dyestuffs and pigments PA422. Household textiles and handkerchiefs PA278 PA422.2 Canvas goods and sacks and other made-up textiles Fertilizers Polishes PA279.1 PA423 Textile finishing PA279.2 Formulated adhesives, gelatine, etc. PA429. Asbestos PA279.3 Explosives and fireworks PA429.2 Miscellaneous textile industries PA279.4 Formulated pesticides, etc. Leather (tanning and dressing) and fellmongery PA279.5 Printing ink PA432 Leather goods PA279.6 Surgical bandages, etc. PA433 PA279.7 Photographic chemical materials PA441 Weatherproof outerwear 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 Miscellaneous base metals PA323 PA449. Corsets and miscellaneous dress industries PA331 Agricultural machinery (except tractors) PA449.2 Gloves PA332 Metal-working machine tools PA450 Footwear PA333.1 Pumps PA461 1 Refractory goods PA333.2 Valves PA461.2 Building bricks and non-refractory goods PA333.3 Compressors and fluid power equipment PA462 Pottery PA334 Industrial engines PA463 Glass PA335 Textile machinery and accessories PA464 Cement PA336 Construction and earth-moving equipment PA469 Abrasives PA337 Mechanical handling equipment PA469.2 Miscellaneous building materials and mineral products PA338 Office machinery PA471 Timber PA339 1 Mining machinery Furniture and upholstery PA339.2 Printing, bookbinding and paper goods machinery Bedding, etc. PA473 PA339.3 Refrigerating machinery, space-heating, Shop and office fitting Wooden containers and baskets PA474 ventilating and air-conditioning equipment PA475 PA339.5 Scales and weighing machinery and portable PA479 Miscellaneous wood and cork manufactures power tools PA481 Paper and board Food and drink processing machinery and PA339.7 PA482.1 Cardboard boxes, cartons and fibre-board packing cases packaging and bottling machinery PA482.2 Packaging products of paper and associated materials Miscellaneous (non-electrical) machinery PA483 Manufactured stationery PA341 Industrial (including process) plant and steelwork PA484. Wallcoverings Ordnance and small arms PA342 PA484.2 Miscellaneous manufactures of paper and board PA349.1 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 Photographic and document copying equipment PA351 PA491 Rubber PA352 Watches and clocks PA492 Linoleum, plastics floor-covering, leathercloth, etc. PA353 Surgical instruments and appliances PA493 Brushes and brooms PA354 Scientific and industrial instruments and systems Toys, games and children's carriages PA494. PA361 Electrical machinery PA494 3 Sports equipment PA362 Insulated wires and cables Miscellaneous stationers' goods PA495 PA363 Telegraph and telephone apparatus and Plastics products equipment PA499. Musical instruments PA364 Radio and electronic components PA499.2 Miscellaneous manufacturing industries PA365.1 Gramophone records and tape recordings PA500

The information in this report relates to establishments classified to the Synthetic resins and plastics materials and synthetic rubber industry, minimum list heading 276 in the Standard Industrial Classification (revised 1968). The activities of the industry include: -

Manufacturing synthetic resins and plastics materials in the form of solid and liquid resins, latices, solutions, dispersions and emulsions, moulding and extrusion compounds, foam, non-decorative sheet, laminated sheet (including decorative), film, rods and tubes and profile shapes, Glass fibre sheet and transparent regenerated cellulose film are included. Unformulated synthetic resin adhesives are included but formulated synthetic resin adhesives (i.e. containing additives such as solvents, plasticisers, etc.) are excluded. The production of textile fibres from plastics materials, plastics mouldings, coatings or extrusions produced from these synthetic resins and plastics materials, articles cut from plastics sheet and plastics floor-coverings and decorative plastics sheet (other than laminated thermosetting sheet) are also excluded.

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

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Summary tables

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Output and costs, 1973 - 1976
All United Kingdom establishments classified to the industry (a)

	Unit	1973	1974	1975	1976
Enterprises	Number	328	408	472	510
Establishments	buland, reerla bese molyald, abeterlani	359	444	516	555
Sales of goods produced	£ thousand	632,600	1,011,506	971,032	1,400,605
Receipts for work done and industrial services rendered	treate solstend or	(b)	(b)	(b)	4,070
Capital goods produced for establishments' own use	tsianos at al associat	4,983	5,729	6,687	7,008
Non-industrial services rendered	hich commisses o	1,992	2,520	4,412	7,976
Goods merchanted or factored	"	33,974	62,020	62,896	87,046
Total sales and work done (c)	.,	673,550	1,081,775	1,045,027	1,506,707
Increase during the year, work in progress and goods on hand for sale	,,	-2,174	49,484	-2,396	40,998
Gross output		671,376	1,131,259	1,042,631	1,547,705
Purchases of materials for use in production, and packaging and fuel	,,	341,782	647,305	596,710	930,703
Purchases of goods for merchanting or factoring	"	28,451	57,912	47,296	72,893
Increase during the year, stocks of materials, stores and fuel	"	10,097	28,608	-10,079	16,893
Cost of industrial services received	"	13,821	18,235	21,677	31,537
Net output	"	297,419	436,415	366,870	529,466
Total employment (d)	Thousands	45.4	50.1	51.1	51.5
Net output per head	£	6,545	8,714	7,175	10,276
Payments for non-industrial services					
Rents, hire of plant and machinery (e)(f)	£ thousand	3,154	3,855	5,834	7,018
Commercial insurance premiums	"	3,936	4,597	5,680	6,413
Bank charges	"	202	351	368	415
Other non-industrial services (g)	"	21,687	33,780	38,902	58,295
icensing of motor vehicles	ena v oy	138	165	204	229
Rates, excluding water rates	"	3,112	4,553	6,528	7,207
Gross value added at factor cost	"	265,189	389,114	309,355	449,889
Gross value added at factor cost per head	£	5,836	7,769	6,050	8,731

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

Capital expenditure, 1973 - 1976

All United Kingdom establishments classified to the industry (a)(b)

All United Kingdom establishments ca					£ thousand
Total same Change out (#) some)	1973	1974	1975		1976
Land and buildings			(9)	Shaken	90 10 40
New building work	2,421	6,093	7,454		5,510
Land and existing buildings					
Acquisitions	774	1,782	2,611		722
Disposals	226	450	881		28
Vehicles					
Acquisitions					
Motor cars	943	1,529)	- 84		
Other vehicles	523	861)	2,019		2,821
Disposals					
Motor cars	340	435)			
Other vehicles	49	71)	463		701
Plant and machinery					
Acquisitions	29,738	49,311	62,222		62,970
Disposals Old	1,318	1,482	836		960
Total net capital expenditure	32,465	57,139	72,126		70,335

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

TABLE 3

Stocks and work in progress, 1973 - 1976 All United Kingdom establishments classified to the industry (a)

					£ thousan
	1973	1974	1975		1976
			Increase	nerodates proportion	Value at end of year
Materials, stores and fuel	10,097	28,608	-10,079	16,893	81,979
Work in progress	481	2,873	2,573	4,086	20,126
Goods on hand for sale	-2,655	46,611	-4,969	36,912	129,945
Total	7,923	78,092	-12,475	57,891	232,050

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

⁽b) Included with Sales of goods produced.

⁽c) A breakdown of manufacturers' sales of principal products are published regularly in Business Monitor PQ276.

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

⁽e) 1973 figures include hire of vehicles.

⁽f) For 1973-1975 rents of industrial and commercial buildings were not recorded separately. For 1976 the amount payable was £2,223 thousand.

⁽g) 1974-1976 figures include the cost of hiring goods vehicles.

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

Analysis of establishments by size, 1976 All United Kingdom establishments classified to the industry (a)

Size group (b)	Estab- lish- ments	Enter- prises (c)	Employmen	nt		Wages and sa	Wages and salaries (f)			
			Others	Operatives		Others (e)	week!			
		etapa kir ani seka	(d)	tives	(e)	Total	per head	Total	per head	
	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£	
1 - 10	287	284	1,427)							
11 - 19	89	87	1,288)					and state		
20 - 49	68	66	2,080)	4,680	2,228	13,758	2,940	६ 107	3,639	
50 - 99	33	32	2,319)							
100 - 199	28	28	3,919	2,704	1,212	7,843	2,901	4,379	3,613	
200 - 299	14	12	3,307	2,113	1,194	6,982	3,304	4,460	3,735	
300 - 399	12	11	4,353	2,806	1,547	10,627	3,787	6,605	4,270	
400 - 499	5	4	2,225	1,207	1,018	4,224	3,500	3,980	3,910	
500 - 749	6	6 6	3,764	2,342	1,422	7,954	3,396	6,190	4,353	
750 - 999	3	921,03	2,535	1,286	1,249	4,522	3,516	5,597	4,481	
,000 - 1,499	4	3	5,172	3,671	1,501	13,286	3,619	5,970	3,977	
,500 and over	6	6	19,137	11,994	7,143	46,041	3,839	37,181	5,205	

Total	555	510	51,526	32,803	18,514	115,237	3,513	82,469	4,454

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

Total sales and work done (g)	Gross output	Net output	rajtor	Gross value added at factor cost		Net capital expenditure (h)	Total stocks and work in progress at end of year
		Total	per head	Total	per head		
£ thousand	£ thousand	£ thousand	£	£ thousand	£	£ thousand	£ thousand
168,110	170,167	56,642	7,962	(j)	(j)	6,038	24,390
100,110	8.01	865,66					
				2374		0.000	nbietadimiA
97,438	99,157	32,576	8,312	75,365(j)	6,831(j)	3,230	14,315
115,888	116,767	37,835	11,441	31,229	9,443	2,409	18,563
188,281	192,047	54,621	12,548	47,569	10,928	4,013	23,571
65,392	67,462	23,331	10,486	18,189	8,175	2,270	11,426
133,638	137,299	44,491	11,820	39,299	10,441	7,128	22,751
89,680	95,236	31,929	12,595	26,028	10,267	4,092	19,961
85,238	87,559	38,073	7,361	32,595	6,302	3,159	16,176
563,042	582,011	209,968	10,972	179,615	9,386	37,997	80,897

1,506,7	07 1,547,705	529,466	10,276	449,889	8,731	70,335	232,050
(f) T	The cost of employers osts of canteens, is est	contributions to nat	ional insurance, g	raduated pensions, ousand.	other pensions a	nd welfare scheme	s and the running

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.

⁽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.

Administrative, technical and clerical employees.

New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.

Gross value added data relate to establishments employing 1-199.

PA276

Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1976 All United Kingdom establishments classified to the industry

Area		Total employment (a)			(b)(c)	the region fr ments with r	Net output, gross value added and employment in the region from returns received from establish- ments with more than 80 per cent of their employ- ment in the region (d)			
						Net output	Gross value added at factor cost	percer	oyment as a ntage of total aal employment	
CONTROL OF STREET	00000 (FEE T		3 77	bosaucini 3		breauers 3	bostood	in the	industry	
	Thou	sands	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	£ thousand			
Standard regions o	f									
North	8.5		16.5	15,660	22.3	39,298	32,160	40.8		
Yorkshire and Humberside	1.0		1.9	1,015	1.4	*		*		
East Midlands	2.0		3.8	1,336	1.9	9,817	7,281	54.1		
East Anglia	2.3		4.5	1,552	2.2	6.00	3,303 . V8V,8	1114		
South East	10.2		19.8	5,641	8.0	52,104	43,255	44.7		
South West	3.8		7.3	2,692	3.8	11,530	9,960	32.5		
West Midlands	4.5		8.8	3,135	4.5	16,822	14,293	57.5		
North West	11.0		21.4	26,832	38.2	64,617	51,812	49.8		
England	43.3	3 505	84.1	57,863	82.3	213,281	173,717	47.8	809,88	
Wales	*******		0 .	818,0*	10,942	±6,08¥8,005	5,830 × 110,5	*		
Scotland	3.9		7.6	3,538	5.0	23,687	21,086	48.0		
Great Britain	*		*	*	*	*	*	*	3	
Northern Ireland	*		*	*	*	*	*	*		
Unallocated (e)	_		-	_	-	258,245	225,341	_		
United Kingdom (b)	51.5	1	00.0	70,335	100.0	529,466	449,889			

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

Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 employees. (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 was made of the net output and gross value added (d) attributable to the region only where more than 80 per cent of the establishment's employees were located in the region. The estimate was made by assuming that net output and gross value added at each address covered by a return was proportional to employment at the address.

Unallocated net output and gross value added covering establishments with addresses in two or more regions, plus estimates for unsatisfactory returns, non-response and establishments exempt because of size.

TABLE 6

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

Accountin	ng year ended	Percentage of total returns received	Percentage of total number employed
122711	Section 1877 Tourist	per cent	per cent
1976	April (a)	0.0	0.0
	May	4.2	1.7
	June	1.7	1.0
	July	2.5	0.4
	August	1.7	0.5
	September	3.4	on post religible and not blog arrects
	October	3.4	1.9
	November	4.2	2.4
	December	58.8	72.5
1977	January	4.2	4.0
	February	0.8	0.1
	March (b)	15.1	14.8

From 6th April.

Including returns made for twelve-month period ended 1st to 5th April 1977.

TABLE 7

Percentage analysis of employees, by full and part-time employment and sex, 1976(a)

Sex seedest tempt	Full-time	Part-time	All employees
Translation desired and the translation of the tran	per cent	per cent	per cent
Male	83	Yrepor 1 ore readles	84
Female	12	4	16

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at end June, 1976.

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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 -PA1001 (Introductory Notes) of the Report on the Census of Production, 1976.

GENERAL INFORMATION

Changes made for 1976

The Census for 1976 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 1975. These include separate headings for:

Sales of goods produced

Receipts for work done and industrial services rendered

Amounts paid for hire of plant and machinery Amounts paid for rent of industrial and commercial buildings

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

Suppression of information relating to individual undertak ings

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

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

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 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 P01000.

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, turn-over, capital formation. Usually the principal over, capital formation. Usually the principal activities carried on in an establishment fall within a single heading of the classification (e.g. steel making or sugar refining). Typically the establishment embraces all the activities carried on at a single address e.g. a farm, 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 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

Establishments are asked to exclude from their returns particulars relating to any department not engaged in production e.g. merchanting, transport, warehousing, for which they keep a separate set of 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 Rusiness Monitor PA1002) related establishments are combined. For these purposes an enterprise group may be defined as a business consisting of ther 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 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.

Establishments with 20 or more employees are included in the censuses each year and the information they supply to the census is supplemented by the returns that those with 25 or more employees provide to the quarterly inquiries. Information about establishments with fewer than 20 employees in most industries is less securely based, but increasing use has been made of data on these small establishments supplied by the Department of Employment. One benefit of using this information is an improvement in the estimates of the number of smaller establishments and enterprises, but there is little effect on other aggregates (e.g. employment, output, net capital expenditure).

A return was required in the 1976 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.

he 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 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 emp loyees
- (b) all other employees (operatives)

verages could be calculated from the figures elating to the last week of each calendar month. stablishments were also required to state the number of working proprietors where appropriate and these are included in total employment figures. Outworkers (i.e. 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 "selfemployed" 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.

Fmp lovees

Administrative, technical and clerical employees include directors in receipt of a definite wage, salary or commission, managers, superintendents 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 They include operatives employed in earners. 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 obsoles-cence. 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 rent of industrial and commercial buildings, hire of plant and machinery, commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport, advertising etc. Amounts payable on royalties for the right to use patents, trademarks, copyrights etc., manufacturing and quarrying rights and technical "know-how" are also included.

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

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 nonindustrial services (e.g. rent of buildings, hire of plant and machinery, commercial insurance premiums, bank charges and amounts paid for professional services, post office services. transport 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 materials to be used by the establishment of the establishment for the production of machinery or other capital ltems for the establishment's own use; of materials for use by the establishment when working on goods supplied by customers; and of food, etc. for any canteen covered by the establishment's return. Transfers of goods to the establishment from another department of the same firm not covered by the establishment's return are included at a cost corresponding to the estimated selling value research and studies for other organisations. corresponding to the estimated selling value research and studies for other organisations. recorded by the other department. Amounts payable to transport firms or credited to the firm's own transport department for delivery of materials are this includes all work of a capital nature carried excluded, as are all purchases of machinery and out during the year by the establishments own plant charged to capital account. Purchases of staff for their own use. plant charged to capital account. Purchases of staff for their own use. 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 for suppliers and any trade discounts are excluded. This includes rents received for commercial and industrial buildings, amounts charged for hiring out plant, machinery and other goods and amounts of returned goods or packaging material returned to suppliers and any trade discounts are excluded. The cost of transport is included at their the right to use patents, trademarks, copyrights 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 the facilities as canteens.

Soods merchanted or factored transport from docks or airport is not included in the firm's accounts the cost of goods purchased, the cost is entered at sales) sold without having been subjected to any ci.f. plus duty (if applicable). Leasing, renting and hire purchase charges are excluded. and hire purchase charges are excluded.

Sales of goods produced

Sales of goods produced

Sales for the purposes of the annual censuses sale and of materials, stores and fuel, at the end means deliveries on sale of goods made by establishments in the United Kingdom covered by the lishments in the United Kingdom covered by the lishments by outworkers or by other establishments from materials given out to them and sales of materials which have been partially processed by the establishment but which are not waste products are included. New building work usually sold or transferred to another establishments for hiring out or leasing are establishments for hiring out or leasing are return being that adopted in the establishments for the establishments of the value included in the capital asset accounts. Forward sales and canteen takings are excluded. All sales in the period of the deducted.

Goods produced in one goods were manufactured. Goods produced in one establishment and transferred either to ancillary Mages and salaries departments not engaged in production for which These are amounts paid during the year to there are separate accounts, or to another operatives and to administrative, technical and establishment of the same firm not covered by the clerical employees. Payments to working return, are treated as sales by the producing proprietors, whether called salaries or not, are establishment and valued as far as possible as it evolved. The values above traducts of the producing proprietors and valued as far as possible as it evolved. establishment and valued as far as possible as it excluded. The values shown include all overtime they had been sold to an independent purchaser payments, bonuses and commissions, whether paid Goods transferred to wholesale or retail selling egularly or not, and no deduction is made for organisations, for which separate accounts are income tax, insurances, contributory pensions etc. kept are valued on the same basis. The value shown for sales is the "net selling value" defined as the amount (excluding value he value of any payments in kind, travelling added tax) charged to customers whether on an expenses etc. is excluded. 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. allowance for returnable cases is included. In employed by the establishment who do their work in industries where products attract Excise Duty the their own homes) is generally on a piece-work value stated is usually inclusive of duty if sold basis. Only amounts paid to outworkers whose names duty-paid and exclusive of duty if sold in bond of ippear on the establishment's payroll are included. exported.

Work done and industrial services rendered Figures for work done represent the amount charged

tocks and work in progress values are given of stocks of goods on hand for

ncome tax, insurances, contributory pensions etc. he value of redundancy payments less any amounts reimbursed from Government sources is included.

demuneration paid to outworkers

he remuneration paid to outworkers (i.e. persons mounts paid to outworkers by sub-contractors are cluded.

imployers' insurance and welfare contributions for work carried out on materials supplied by a his item includes employers' contributions to customer and include repair work. Within certain ational insurance and graduated pensions (and/or rnings related basic contributions under the

Social Security Act, 1973) 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.

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