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Business Monitor

Report on the
Census of Production

Glass

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A publication of the Government Statistical Service

PA463

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Report on the Census of Production 1979

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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

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Commencing with the 1971 Census, the Census of Production reports are being numbered in a uniform series embracing all industrial inquiries in the Business Monitor series. Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) or O (occasional) or Q (quarterly) or M (monthly) or R (repetitive – i.e. at regular intervals of less than one year but not monthly or quarterly): and then by a number indicating the minimum list heading, or sub-division of a minimum list heading, of the Standard Industrial Classification (revised 1968).

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Enquiries:

Business Statistics Office
Newport, Gwent
NPT 1XG
Newport 56111 (STD code 0633) ext 2455
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- PA279.5 Printing ink
- PA279.6 Surgical bandages, etc.
- PA279.7 Photographic chemical materials
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- PA313 Iron castings, etc.
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- PA322 Copper, brass and other copper alloys
- PA323 Miscellaneous base metals
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- PA332 Metal-working machine tools
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- PA336 Construction and earth-moving equipment
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- PA339.3 Refrigerating machinery, space-heating, ventilating and air-conditioning equipment
- PA339.5 Scales and weighing machinery and portable power tools
- PA339.7 Food and drink processing machinery and packaging and bottling machinery
- PA339.9 Miscellaneous (non-electrical) machinery
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- PA364 Radio and electronic components
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- PA368 Electrical appliances primarily for domestic use
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- PA370 Shipbuilding and marine engineering
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- PA381.1 Motor vehicle manufacturing
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- PA382 Motor cycle, tricycle and pedal cycle manufacturing
- PA383 Aerospace equipment manufacturing and repairing
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- PA422.1 Household textiles and handkerchiefs
- PA422.2 Canvas goods and sacks and other made-up textiles
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- PA431 Leather (tanning and dressing) and fellmongery
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- PA443 Women's and girls' tailored outerwear
- PA444 Overalls and men's shirts, underwear, etc.
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- PA482.1 Cardboard boxes, cartons and fibre-board packing cases
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- PA483 Manufactured stationery
- PA484.1 Wallcoverings
- PA484.2 Miscellaneous manufactures of paper and board
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- PA489 General printing and publishing
- PA491 Rubber
- PA492 Linoleum, plastics floor-covering, leathercloth, etc.
- PA493 Brushes and brooms
- PA494.1 Toys, games and children's carriages
- PA494.3 Sports equipment
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- PA499.2 Miscellaneous manufacturing industries
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- PA1002 Summary tables

The information in this report relates to establishments classified to the Glass industry, minimum list heading 463 in the Standard Industrial Classification (revised 1968). The activities of the industry include:—

Manufacturing all types of flat glass, safety glass, glass bricks, glass rods, glass tubing, domestic glassware, mirrors, leaded lights, lamp glasses and glass envelopes for lamp bulbs, scientific and medical glassware, glass bottles, bottle stoppers, jars, syphons and vacuum flasks, glass fibre roving, mat, chopped strand and roving, and thermal insulating materials of glass fibre. Glass cutting, decorating, engraving, polishing, staining, etc. are included but the cutting of glass to size in the course of distribution, is excluded. The manufacture of optical glass is included but the grinding of lenses is excluded. Glass fibre yarn, tape and cloth, resin bonded fibreglass sheets and mouldings, complete fibreglass boats, and other manufactures of glass fibre 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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TABLE 4

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

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Size group (b)	Estab-lish-ments	Enter-prises (c)	Employment			Wages and salaries (f)				
			Total (d)	Opera-tives	Others (e)	Operatives		Others (e)		
						Total	per head	Total	per head	
			Number	Number	Number	Number	Number	£ thousand	£	£ thousand
1-10	420	407	1,941)						
11-19	105	97	1,507)	4,437	1,857	18,015	4,060	9,209	4,959
20-49	54	53	1,598)						
50-99	24	24	1,711)						
100-199	37	35	5,190	4,043	1,140	17,052	4,218	5,744	5,039	
200-299	9	8	2,101	1,613	485	7,340	4,551	2,474	5,101	
300-399	6	6	2,047	1,673	373	7,407	4,427	2,188	5,865	
400-499	3	3	1,390	1,123	267	6,133	5,461	1,798	6,734	
500-749	10	9	6,263	4,894	1,369	23,222	4,745	7,364	5,379	
750-999	5	4	4,209	3,212	997	14,423	4,490	5,252	5,268	
1,000-1,499	9	6	11,612	9,081	2,531	44,775	4,931	15,025	5,937	
1,500 and over	6	4	20,019	14,780	5,239	85,151	5,761	35,230	6,725	
Total	688	612	59,588	44,856	14,258	223,517	4,983	84,284	5,911	

- (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) 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.

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Total sales and work done (g)	Gross output	Net output		Gross value added at factor cost		Net capital expenditure (h)	Total stocks and work in progress at end of year
		Total	per head	Total	per head		
71,718	73,261	37,431	5,540	(j)	(j)	6,111	19,245
82,986	84,136	42,155	8,122	66,594(j)	5,574(j)	2,881	12,445
34,898	35,487	17,604	8,379	15,215	7,242	1,979	5,351
34,318	34,672	18,120	8,852	16,057	7,844	1,211	7,408
48,891	50,423	39,445	28,378	35,796	25,753	1,123	4,798
98,559	102,050	60,184	9,609	52,402	8,367	10,029	21,161
66,457	67,999	41,075	9,759	37,567	8,925	2,224	11,243
193,978	201,743	115,975	9,988	97,812	8,423	12,307	41,745
430,473	434,305	256,335	12,805	226,197	11,299	48,698	66,660
1,062,277	1,084,075	628,323	10,544	547,640	9,190	86,564	190,056

- (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 £56,821 thousand. The remuneration of outworkers on returns received was £22 thousand.
- (g) Sales of goods produced, capital goods manufactured and buildings constructed by establishments for their own use, work done, industrial and non-industrial services rendered and merchanted goods.
- (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.

TABLE 5

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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	Total employment (b)		Net capital expenditure (c)		Net output (d)	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	4.8	8.0	7,338	8.5	33,195	29,437	84.4
Yorkshire and Humberside	*	*	*	*	*	*	*
East Midlands	*	*	*	*	*	*	*
East Anglia	0.7	1.1	233	0.3	5,247	4,559	21.4
South East	9.9	16.6	10,049	11.6	83,492	71,871	42.7
South West	1.2	2.0	562	0.6	8,515	7,246	68.0
West Midlands	*	*	*	*	*	*	*
North West	*	*	*	*	*	*	*
England	52.6	88.3	75,495	87.2	527,177	462,058	
Wales	*	*	*	*	*	*	*
Scotland	*	*	*	*	*	*	*
Great Britain	59.3	99.4	86,377	99.8	626,738	546,345	
Northern Ireland	0.3	0.6	187	0.2	1,585	1,295	28.9
United Kingdom	59.6	100.0	86,564	100.0	628,323	547,640	

- (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.
- (d) 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.

TABLE 6

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

Accounting year ended		Percentage of total returns received	Percentage of total number employed	
		per cent	per cent	
1979	April (a)	2.8	1.0	
	May	—	—	
	June	3.8	1.0	
	July	0.9	0.2	
	August	0.9	0.1	
	September	2.8	5.4	
	October	4.7	2.9	
	November	4.7	2.3	
	December	50.0	51.0	
	1980	January	2.8	1.6
		February	2.8	1.8
		March (b)	23.6	32.8

(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)

Sex	Full-time	Part-time	All employees
	per cent	per cent	per cent
Male	76	1	77
Female	18	5	23

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at mid-June, 1977, the latest date for which information is available.

TABLE 8

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

	Unit	1978	1979
Gross output per head	£	15,807	18,193
Net output per head	£	9,290	10,544
Gross value added per head	£	8,249	9,190
Gross value added as a percentage of gross output	%	52	51
Ratio of gross output to stocks (b)		6.6	5.7
Wages and salaries as a percentage of gross value added	%	52	56
Ratio of operatives to administrative, technical and clerical employees		2.9	3.1
Wages and salaries per administrative, technical and clerical employee	£	5,212	5,911
Wages and salaries per operative	£	4,062	4,983
Net capital expenditure per head	£	-1,244	1,453
Net capital expenditure as a percentage of gross value added	%	15	16

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

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

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 merchandising, 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

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ISBN 0 11 513400 X

£2.50 net

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