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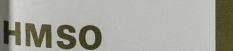
Business Statistics Office

Business Monitor

Report on the Census of Production

Miscellaneous mining and quarrying

9 JAN1980
OF POLITICAL AND ECONOMIC SCIENCE





Special Note for Purchasers

Commencing with the 1971 Census, the Census of Production reports are being numbered in a uniform series embracing all industrial inquiries in the Business Monitor series. These Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) or Q (quarterly) or M (monthly): and then by a number indicating the minimum list heading, or sub-division of a minimum list heading, of the Standard Industrial Classification (revised 1968).

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

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

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PA109

Business Monitor

A publication of the Government Statistical Service

Report on the Census of Production 1977

Miscellaneous mining and quarrying

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

Grain milling

Biscuits

Sugar

PA229.1 Margarine

Coal mining
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

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 Mineral oil refining Lubricating oils and greases

Synthetic resins and plastics materials and

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.

PA279.6 Surgical bandages, etc.
PA279.7 Photographic chemical materials

Iron and steel (general)

Miscellaneous base metals

Metal-working machine tools

PA333.3 Compressors and fluid power equipment

Textile machinery and accessories

Mechanical handling equipment

PA339.3 Refrigerating machinery, space-heating,

PA339.5 Scales and weighing machinery and portable

PA339.7 Food and drink processing machinery and

Aluminium and aluminium alloys

Copper, brass and other copper alloys

Agricultural machinery (except tractors)

Construction and earth-moving equipment

PA339.2 Printing, bookbinding and paper goods machinery

packaging and bottling machinery Miscellaneous (non-electrical) machinery

Industrial (including process) plant and steelwork

ventilating and air-conditioning equipment

synthetic rubber

PA279.3 Explosives and fireworks PA279.4 Formulated pesticides, etc.

Fertilizers

Steel tubes

Iron castings, etc.

Industrial engines

Office machinery

Mining machinery

PA279.1 Polishes

PA279.5 Printing ink

Soft drinks

Tobacco

PA271.2 Organic chemicals PA271.3 Miscellaneous chemicals

PA1001

PA211

PA212 PA213

PA214

PA215

PA216

PA218

PA219

PA231

PA239 1

PA261

PA262

PA271.1

PA273

PA275

PA276

PA277

PA278

PA312

PA313

PA322

PA323

PA331

PA334

PA335

PA337

PA338

PA341

PA351

PA342

PA339.1

PA332 Metal-w PA333.1 Pumps

PA333.2 Valves

PA369.2 Primary and secondary batteries

PA369.4 Electric lamps, electric light fittings, wiring

accessories, etc. PA370 Shipbuilding and marine engineering

PA380 Wheeled tractor manufacturing PA381.1

Motor vehicle manufacturing
Trailers, caravans and freight containers PA381.2

Motor cycle, tricycle and pedal cycle manufacturing Aerospace equipment manufacturing and repairing PA382 PA383 Locomotives, railway track equipment, railway carriages, PA384

wagons and trams Engineers' small tools and gauges PA390

PA391 Hand tools and implements PA392 Cutlery, spoons, forks and plated tableware, etc.

PA393 Bolts, nuts, screws, rivets, etc. PA394

Wire and wire manufactures PA395 Cans and metal boxes

Jewellery and precious metals
Metal furniture PA396

PA399.1

PA399.5 Drop forgings, etc. Metal hollow-ware PA399.6

PA399.8 Miscellaneous metal manufacture PA411 Production of man-made fibres

PA412 Spinning and doubling on the cotton and flax systems

Weaving of cotton, linen and man-made fibres Woollen and worsted PA413 PA414

PA415 Jute PA416

Pharmaceutical chemicals and preparations Rope, twine and net

PA417.1 Hosiery and other knitted goods PA417.2 Warp knitting

PA418

PA419 Carpets PA421 Narrow fabrics

PA422 Household textiles and handkerchiefs

Canvas goods and sacks and other made-up textiles Textile finishing PA422 2

PA423 PA429.1 Asbestos

Miscellaneous textile industries PA429 2

PA431 Leather (tanning and dressing) and fellmongery

PA432 Leather goods

PA433

PA441 Weatherproof outerwear

PA442 Men's and boys' tailored outerwear

PA443 Women's and girls' tailored outerwear

PA444 Overalls and men's shirts, underwear, etc. Dresses, lingerie, infants' wear, etc. PA445

PA446 Hats, caps and millinery

PA449 1 Corsets and miscellaneous dress industries

PA449.2 Gloves

PA450 Footwear PA461 Refractory goods

PA461.2 Building bricks and non-refractory goods

PA462 Potterv PA463

Glass PA464 Cement

PA469.1 Abrasives

PA469.2 Miscellaneous building materials and mineral products PA471

Timber Furniture and upholstery PA472

PA473 Bedding, etc.

PA474 Shop and office fitting

PA475 Wooden containers and baskets

PA479 Miscellaneous wood and cork manufactures

PA481 Paper and board

PA482.1 Cardboard boxes, cartons and fibre-board packing cases

PA482.2 Packaging products of paper and associated materials

Manufactured stationery PA484.1 Wallcoverings

Miscellaneous manufactures of paper and board PA484 2

Ordnance and small arms
Ball, roller, plain and other bearings Printing, publishing of newspapers and periodicals General printing and publishing PA485 PA349.2 Precision chains and other mechanical engineering PA489

Photographic and document copying equipment PA491 Rubber

PA492 Linoleum, plastics floor-covering, leathercloth, etc. Watches and clocks PA493

Surgical instruments and appliances Brushes and brooms Toys, games and children's carriages PA354 Scientific and industrial instruments and systems PA494 1

PA494.3 PA361 Electrical machinery Sports equipment

Insulated wires and cables Miscellaneous stationers' goods

PA363 Telegraph and telephone apparatus and PA496 Plastics products

PA499. Musical instruments equipment

PA364 Radio and electronic components PA499.2 Miscellaneous manufacturing industries PA365 1

Gramophone records and tape recordings PA500 Construction

PA365.2 Broadcast receiving and sound reproducing PA601 Gas

PA602 Electricity equipment

Electronic computers Water supply PA367 PA1002

Radio, radar and electronic capital goods Summary tables Electrical appliances primarily for domestic use

PA109 MISCELLANEOUS MINING AND QUARRYING

PA 109

The information in this report relates to establishments classified to the Miscellaneous mining and quarrying industry, minimum list heading 09 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

Mining or quarrying iron ore and ironstone, lead, tin and other non-ferrous metals or metalliferous ores, and alum, barytes, graphite, gypsum, fluorspar, etc. and such ancillary activities as cleaning, washing, grading, etc., normally carried out at pits and quarries; extracting and refining salt and salt processing and packing (at mine or pit).

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

LIST OF CONTENTS

| Table No | Title | | | | | | Page |
|-------------|---|-------------------|---|------------------------------|--------------|-----------|------|
| 1 | Output and costs, 197 | 73—1977 | | | | | 2 |
| 2 | Capital expenditure, 1 | | | | | | 2 |
| 3 | Stocks, 1973–1977 | 377 | | | | | 3 |
| 4 | Analysis of establishm | nents by size, 19 | 77 | | | | 4-5 |
| 5 | Regional distribution at factor cost, 1977 | of employment, | , net capital expen | diture, net output | and gross va | lúe added | 6 |
| 6 | Percentage analysis of Kingdom establishme | twelve-month p | periods covered by 0 or more persons | returns received f , 1977 | rom United | | 7 |
| 7 | Percentage analysis of | employees, by | full and part-time | employment and | sex, 1977 | | 7 |
| 8 | Operating ratios, 197 | 7 | | | | | 8 |

PA109

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

| | Unit | 1973 | 1974 | 1975 | 1976 | 1977 |
|--|------------------------|--------|--------|--------|--------|-------------|
| Enterprises | Number | 72 | 78 | 81 | 74 | 74 |
| Establishments | era u stanaca . | 87 | 104 | 112 | 95 | 97 |
| Sales of goods produced (b) | £ thousand | 33,116 | 51,813 | 63,292 | 79,459 | 110,760 |
| Receipts for work done and industrial services rendered | med on toler | (c) | (c) | (c) | 1,079 | 6,765 |
| Capital goods produced for establishments' own use | " | 748 | 1,488 | 1,723 | 1,479 | 1,721 |
| Non-industrial services rendered | " | 1,409 | (d) | 1,902 | 318 | 933 |
| Goods merchanted or factored | " | 414 | 529 | 604 | 4,055 | 3,013 |
| Total sales and work done (e) | | 35,687 | 53,830 | 67,521 | 86,390 | 123,192 |
| Value of outward transport on goods sold:— | | | | | | |
| by establishments' own staff | " | 462 | 740 | 756 | 898 | 1,036 |
| by other organisations | " | 4,093 | 6,086 | 5,994 | 7,047 | 15,403 |
| ncrease during the year, goods on and for sale | " | 218 | -246 | 995 | 1,437 | –510 |
| Gross output | " | 40,459 | 60,411 | 75,266 | 95,772 | 139,121 |
| Purchases of materials for use in production, and packaging and fuel | | 8,950 | 16,736 | 21,996 | 28,806 | 39,770 |
| Purchases of goods for merchanting or actoring | ., | 288 | 398 | 512 | (f) | 2,650 |
| ncrease during the year, stocks of materials, stores and fuel | ,, | 124 | 1,014 | 1,364 | 648 | 728 |
| Cost of industrial services received | " | 609 | 2,129 | 3,962 | 6,570 | 7,948 |
| Net output | " | 30,736 | 42,162 | 50,161 | 61,044 | 89,482 |
| Total employment (g) | Thousands | 3.7 | 4.9 | 5.6 | 5.6 | 6.1 |
| Net output per head | £ | 8,276 | 8,590 | 8,962 | 10,916 | 14,619 |
| Payments for non-industrial services | | | | | | |
| Hire of vehicles, plant and machinery | £ thousand | 173 | 339 | 934 | 1,364 | 1,636 |
| Rents of industrial and commercial buildings | ,, | (h) | (h) | (h) | 37 | 47 |
| Commercial insurance premiums | " | 254 | 370 | 958 | 707 | 932 |
| Bank charges | ,, | 6 | 9 | 14 | 20 | 50 |
| Other non-industrial services | " | 4,893 | 7,499 | 7,592 | 9,399 | 18,630 |
| Licensing of motor vehicles | | 27 | 30 | 38 | 57 | 69 |
| Rates, excluding water rates | " | 387 | 565 | 818 | 793 | 703 |
| Gross value added at factor cost | " | 24,995 | 33,350 | 39,807 | 48,667 | 67,414 |
| Gross value added at factor cost per head | £ | 6,730 | 6,795 | 7,112 | 8,703 | 11,014 |

Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons. Satisfactory returns accounted for 86 per cent of employment within the industry.

TABLE 2

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

| f | + | h | 01 | 10 | 2 | r |
|---|---|---|----|----|---|---|

| the second secon | 1973 | 1974 | 1975 | 1976 | 1977 | |
|--|-------|--------|--------|----------------|--------------|--------------|
| Land and buildings | | | | t at 16 | 15-2309000 S | 10 10 10 (6) |
| New building work | 916 | 2,623 | 1,799 | 4,226 | 3,968 | |
| Land and existing buildings | | | | | | |
| Acquisitions | 93 | 437 | 102 | 36 | 830 | |
| Disposals | 347 | 200 | 85 | 2 | 34 | |
| Vehicles | | | | | | |
| Acquisitions | 182 | 734 | 486 | 436 | 2,041 | |
| Disposals | 23 | 46 | 64 | 39 | 505 | |
| Plant and machinery | | | | | | |
| Acquisitions | 3,358 | 9,138 | 12,004 | 13,997 | 12,970 | |
| Disposals | 425 | 1,525 | 617 | 318 | 1,339 | |
| Total net capital expenditure | 3,755 | 11,159 | 13,624 | 18,336 | 17,931 | |

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

TABLE 3

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

| | | | | | | £ thousand |
|----------------------------|---------------|-----------------|----------|-------|-------|----------------------|
| | 1973 | 1974 | 1975 | 1976 | | 1977 |
| | 20,579 973,05 | 095.0 10.550 | Increase | 6.121 | AT TE | Value at end of year |
| Materials, stores and fuel | 125 | 1,014 | 1,364 | 648 | 728 | 6,053 |
| Goods on hand for sale | 218 | -246 | 995 | 1,437 | -510 | 3,590 |
| Total | 343 | 768 | 2,359 | 2,085 | 219 | 9,643 |

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

Sales of products are valued at ex-quarry or ex-works prices, the cost of transport being shown separately.

⁽c) Included in sales of goods produced.

Included in Capital goods produced for establishments' own use. (d)

Details of manufacturers' sales of certain principal products are published regularly in Business Monitors 109.2 and 109.3. Correlative (e) figures for the whole industry are not yet available.

Included in Purchases of materials for use in production, and packaging and fuel. (f)

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

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

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

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

| Size group (b) | 778 | Estab- lish- ments | Enter- prises (c) | Employme | nt | | Wages and sa | laries (f) | | |
|----------------------|-------|--------------------------|-------------------------|----------|--------|---------------|--------------|-------------|------------|-------------|
| | | | | Total | Opera- | Others (e) | Operatives | | Others (e) | NO MINO |
| | | | | (d) | tives | (6) | Total | per head | Total | per head |
| | th, 8 | Number | Number | Number | Number | Number | £ thousand | £ | £ thousand | £ |
| | | | | | | | | | | |
| 1-10 | | 43 | 39 | 175) | | | | | | |
| 11-19 | | 26 | 24 | 368) | | | | | | |
| 11-19 | | 20 | 24 |) | 954 | 247 | 3,976 | 4,168 | 999 | 4,046 |
| 20-49 | | 10 | 9 | 277) | | | | | | |
| | | | |) | | | | | | |
| 50-99 | | 5 | 2 | 390) | | | | | | |
| 100-299 | | 7 | 6 | 1,205 | 926 | 279 | 3,901 | 4,213 | 1,231 | 4,411 |
| | | | 818 | 100 | | 055 | 0.700 | 4.000 | 1 000 | 2.057 |
| 300-499 | | 3 | 3 | 1,181 | 926 | 255 | 3,762 | 4,063 | 1,009 | 3,957 |
| 500 and ove | er | 3 | 3 | 2,525 | 2,037 | 488 | 9,040 | 4,438 | 2,899 | 5,941 |
| | | | | | | | | | | |

| Total | 97 | 74 | 6,121 | 4,843 | 1,269 | 20,679 | 4,270 | 6,138 | 4,837 |
|-------|----|----|-------|-------|-------|--------|-------|-------|-------|
| | | | | | | | | | |

⁽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 outpu | t Net output | ggs of this tens | Gross value added at factor cost | | Net capital expenditure (h) | Total stocks and work in progress at end of year |
|-------------------------------------|---|--------------|------------------|--|-------------|-----------------------------|---|
| | Advantage de la participa de la participa | Total | per head | Total | per head | | |
| £ thousand | £ thousand | £ thousand | £ management | £ thousand | £ | £ thousand | £ thousand |
| | | | | | | | Touristance produced |
| 23,758 | 29,369 | 21,454 | 17,731 | (j) | (j) | 2,399 | 1,475 |
| | | | | | | | |
| 22,974 | 28,007 | 19,749 | 16,390 | 30,097(j) | 12,462(j) | 2,290 | 1,501 |
| 15,399 | 15,830 | 9,146 | 7,744 | 8,023 | 6,793 | 3,138 | 2,102 |
| 61,061 | 65,916 | 39,132 | 15,498 | 29,294 | 11,602 | 10,104 | 4,565 |

| | | Chardo seve no cont | | | | | |
|---------|---------|---------------------|--------|--------|--------|--------|-------|
| 123,192 | 139,121 | 89,482 | 14,619 | 67,414 | 11,014 | 17,931 | 9,643 |
| | | | | | | | |

⁽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 £ 3,925 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.

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.

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

PA109

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

| Area | Total employment | (b) | Net capital expenditure | (c) | Net output (d | Gross value added at factor cost (d) | factor co by establ 80 per ce of their e in the reg proportion | on of total ue added at |
|-----------------------------|---------------------|----------------------------------|----------------------------|----------------------------------|------------------|---------------------------------------|---|----------------------------|
| organical 3 | Thousands | per cent of United Kingdom | £ thousand | per cent of United Kingdom | £ thousar | £ thousand | d percenta | ge Mariana Maria |
| Standard regions of England | | | | | | | | |
| North | 1.5 | 24.8 | 6,973 | 38.9 | * | * 21.ASA | 935.65* | |
| Yorkshire and Humberside | 0.3 | 5.0 | 1,245 | 6.9 | 8,648 | 4,998 | 0.0 | |
| East Midlands | 0.8 | 13.4 | 1,544 | 8.6 | 11,072 | 8,777 | 49.9 | |
| East Anglia | * | | * | *** | * | * 11.0 | 1006.81 | |
| South East | * | • | * | * 2000 007 | * | 281 96 * | 310.33* | |
| South West | 1.8 | 30.1 | 3,116 | 17.4 | 15,284 | 13,259 | 92.5 | |
| West Midlands | 0.1 | 2.0 | 164 | 0.9 | 1,356 | 1,144 | 49.3 | |
| North West | 1.2 | 20.3 | 4,419 | 24.6 | * | * | * | 1 |
| England | 6.0 | 98.4 | 17,655 | 98.5 | 86,691 | 65,425 | | |
| Wales | _ | 0.8 | 83 | 0.5 | 623 | 401 | 0.0 | |
| Scotland | * | * | * | * | * | * | * | |
| Great Britain | * | * | * | * | * | * | | |
| Northern Ireland | * | * | * | * | * | * | * | |
| United Kingdom | 6.1 | 100.0 | 17,931 | 100.0 | 89,482 | 67,414 | / | |

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

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

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

Where a census return covered addresses in two or more regions, an estimate of the net output attributable to each address was made by assuming that net output was proportionate to employment. An estimate for each region was obtained by aggregating estimates of net output for addresses located in that region. Gross value added at factor cost is treated similarly.

TABLE 6

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

| Accour | nting year ended | Percentage of total returns received | Percentage of total number employed |
|--------|---|--------------------------------------|-------------------------------------|
| | 200800000000000000000000000000000000000 | per cent | per cent |
| 1977 | April (a) | 0.0 | 0.0 |
| | May | 4.4 | 4.8 |
| | June | 4.4 | 8.4 |
| | July | 0.0 | 0.0 |
| | August | 0.0 | 0.0 |
| | September | 13.0 | 3.8 |
| | October | 0.0 | 0.0 |
| | November | 4.4 | 0.7 |
| | December | 21.7 | 47.1 |
| 978 | January | 0.0 | 0.0 |
| | February | 0.0 | 0.0 |
| | March (b) | 52.2 | 35.2 |
| | | | |

From 6th April.

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)

| Sex | Full-time | Part-time | All employees |
|-----------------|-----------|-----------------------|---------------|
| La constitution | per cent | per cent | per cent |
| Male | 93 | Telefox be see to eas | 94 |
| Female | 3 | 2 | 6 |

Source: Department of Employment

The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at mid-June, 1976 because 1977 information is not yet available.

PA109

Operating ratios, 1977

All United Kingdom establishments classified to the industry (a)

| permano stantus listo ja segresses | , | 1977 |
|---|-------|--------|
| Gross output per head | £ | 22,729 |
| | | |
| Net output per head | £ | 14,619 |
| Gross value added per head | £ | 11,014 |
| Gross value added as a percentage of gross output | % | 48 |
| Ratio of gross output to stocks | | 14.4 |
| Wages and salaries as a percentage of gross value added | % | 40 |
| Ratio of operatives to administrative, technical and cleric employees | al | 3.8 |
| | | |
| Wages and salaries per operative | £ | 4,270 |
| Wages and salaries per administrative, technical and cl | 282 | |
| employee | £ | 4,837 |
| Net capital expenditure per head | £ and | 2,929 |
| Net capital expenditure as a percentage of gross value add | ded % | 27 |

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 ncerned was sometimes asked to give permission for its publication. In the majority of cases permission was given. When it was refused and here contributors were not approached the figure has been suppressed, either by combining it with

Symbols used
The following symbols are used throughout the PA
series of Business Monitors:

mitting the figure altogether.

ther figures, or as in the regional tables, by

 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
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

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.

(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

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 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

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. The figures include persons engaged on merchanting or factoring and canteen workers where particulars in respect of these activities could not be

excluded from the return.

Working proprietors

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

Employees
Administrative, technical and clerical employees
include directors in receipt of a definite wage,
salary or commission, managers and works foremen;
research and design employees (other than operatives); draughtsmen, editorial staff, advertising
staff, travellers and all office employees.
Operatives include all other classes of employees,
that is, broadly speaking, all manual wage earners,
They include operatives employed in power stations,
transport (including roundsmen), warehouses,
stores, shops and canteens, inspectors, maintenance
workers and cleaners. Operatives engaged in
outside work of erecting, fitting etc are also

Capital expenditure

included.

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 show 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 and discounts received, but including the cost of transport and installation.

Deductible value added tax is excluded but nondeductible value added tax on motor cars acquired is included. No deduction is made for depreciation, amortization or obsolescence. The proceeds of items disposed of during the year exclude amounts written-off for items scrapped.

Cost of industrial services

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

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, mining and quarrying rights and technical "know-how" are also included.

cross 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 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.

et 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.

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.

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

Sales of goods produced

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

The value shown for sales is 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.

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 the value of any materials bought and used in such work. Activities within this heading include repair and jobbing work, erection and installation of plant and machinery, exploration work and research and development. Industrial services rendered include repairs and

maintenance, installation work, and technical research and studies for other organisations.

Capital goods produced for establishments¹ own use This includes all work of a capital nature carried out during the year by the establishments¹ 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, mining 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 subcontractors are excluded and progress payments received from other organisations are not deducted.

Wages and salaries

These are amounts paid during the year to operatives and to administrative, technical and clerical employees. Payments to working proprietors, whether called salaries or not, are excluded. The values shown include all overtime payments, bonuses, 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.

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 practice with regard to stock valuation, may affect comparability in some respects.

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