



BRITISH LIBRARY  
OF POLITICAL AND  
ECONOMIC SCIENCE



LONDON SCHOOL OF  
ECONOMICS AND  
POLITICAL SCIENCE  
10, PORTUGAL STREET,  
LONDON WC2A 2HD

BLPES



21 0330386 3



42  
(HA 251)  
1 STATISTICS  
READING ROOM  
2 STATISTICS  
BACK UP

27 APR 1994  
9709/9  
BRITISH LIBRARY OF POLITICAL  
& ECONOMIC SCIENCE

# Business Monitor

1992 Report on the Census of Production

PA320

Industrial plant and steelwork



A publication of the Government Statistical Service

## BUSINESS MONITORS

### SPECIAL NOTE FOR PURCHASERS

The Central Statistical Office, aided by industry and commerce, provides a great deal of the statistical data required by Government for monitoring the economy.

Much of this data is published in the form of Business Monitors, giving information about production, sales, employment and investment.

Full details of the range of Business Monitors are available in the form of a Business Monitor brochure, which can be obtained from:

The Librarian, Central Statistical Office,  
Government Buildings,  
Cardiff Road,  
Newport, Gwent, NP9 1XG  
Telephone (0633) 812973  
Telex 497121: answer back CSONPT G  
Fax: 0633 812599

### Standing Order Service

Placing a standing order with HMSO Books enables a customer to receive future editions of this title and/or other titles in this series automatically as they are published.

This saves the time, trouble and expense of placing individual orders and avoids the problem of knowing when to do so.

For details please write to HMSO Books (PC 13A/1), Publications Centre, PO Box 276, London SW8 5DT (or telephone 071-873 8466 for standing orders).

The standing order service also enables customers to receive automatically all material of their choice which additionally saves extensive catalogue research. The scope and selectivity of the service has been extended by new techniques, and there are more than 3,500 classifications to choose from. A special leaflet describing the service in detail may be obtained on request.



"Our mission is to improve decision making, stimulate research and inform debate within government and the wider community by providing a quality statistical service"

# Report on the Census of Production 1992

## PA320 Industrial plant and steelwork

### BUSINESS MONITOR

A publication of the Government Statistical Service

Presented by the Chancellor of the Exchequer  
to Parliament in pursuance of the Statistics of Trade Act 1947  
(10 & 11 Geo.6 Cha.39 sec 7)

London: HMSO

**BUSINESS MONITORS MAKING UP THE COMPLETE CENSUS REPORT**

PA1001	Introductory notes	PA362	Railway and tramway vehicles
PA111	Coal extraction and manufacture of solid fuels	PA363	Cycles and motor cycles
PA130	Extraction of mineral oil and natural gas	PA364	Aerospace equipment manufacturing and repairing
PA140	Mineral oil processing	PA365	Miscellaneous vehicles
PA161	Production and distribution of electricity	PA371	Measuring, checking and precision instruments and apparatus
PA162	Public gas supply	PA372	Medical and surgical equipment and orthopaedic appliances
PA170	Water supply industry	PA373	Optical precision instruments and photographic equipment
PA221	Iron and steel industry	PA374	Clocks, watches and other timing devices
PA222	Steel tubes	PA411	Organic oils and fats
PA223	Drawing, cold rolling and cold forming of steel	PA412	Slaughtering of animals and production of meat and by-products
PA224	Non-ferrous metals industry	PA413	Preparation of milk and milk products
PA231	Extraction of stone, clay, sand and gravel	PA414	Processing of fruit and vegetables
PA239	Extraction of miscellaneous minerals (including salt)	PA415	Fish processing
PA241	Structural clay products	PA416	Grain milling
PA242	Cement, lime and plaster	PA419	Bread, biscuits and flour confectionery
PA243	Building products of concrete, cement or plaster	PA420	Sugar and sugar by-products
PA244	Asbestos goods	PA421	Ice-cream, cocoa, chocolate and sugar confectionery
PA245	Working of stone and other non-metallic minerals	PA422	Animal feeding stuffs
PA246	Abrasive products	PA423	Starch and miscellaneous foods
PA247	Glass and glassware	PA424	Spirit distilling and compounding
PA248	Refractory and ceramic goods	PA426	Wines, cider and perry
PA251	Basic industrial chemicals	PA427	Brewing and malting
PA255	Paints, varnishes and printing ink	PA428	Soft drinks
PA256	Specialised chemical products mainly for industrial and agricultural purposes	PA429	Tobacco industry
PA257	Pharmaceutical products	PA431	Woollen and worsted industry
PA258	Soap and toilet preparations	PA432	Cotton and silk industries
PA259	Specialised chemical products mainly for household and office use	PA433	Throwing, texturing, etc. of continuous filament yarn
PA260	Production of man-made fibres	PA434	Spinning and weaving of flax, hemp and ramie
PA311	Foundries	PA435	Jute and polypropylene yarns and fabrics
PA312	Forging, pressing and stamping	PA436	Hosiery and other knitted goods
PA313	Bolts, nuts, etc.; springs; non-precision chains; metals treatment	PA437	Textile finishing
PA314	Metal doors, windows, etc.	PA438	Carpets and other textile floorcoverings
PA316	Hand tools and finished metal goods	PA439	Miscellaneous textiles
PA320	Industrial plant and steelwork	PA441	Leather (tanning and dressing) and fellmongery
PA321	Agricultural machinery and tractors	PA442	Leather goods
PA322	Metal-working machine tools and engineers' tools	PA451	Footwear
PA323	Textile machinery	PA453	Clothing, hats and gloves (including fur goods)
PA324	Machinery for the food, chemical and related industries; process engineering contractors	PA455	Household textiles and other made-up textiles
PA325	Mining machinery, construction and mechanical handling equipment	PA461	Sawmilling, planing, etc. of wood
PA326	Mechanical power transmission equipment	PA462	Manufacture of semi-finished wood products and further processing and treatment of wood
PA327	Machinery for printing, paper, wood, leather, rubber, glass and related industries; laundry and dry cleaning machinery	PA463	Builders' carpentry and joinery
PA328	Miscellaneous machinery and mechanical equipment	PA464	Wooden containers
PA329	Ordnance, small arms and ammunition	PA465	Miscellaneous wooden articles
PA330	Manufacture of office machinery and data processing equipment	PA466	Articles of cork and plaiting materials, brushes and brooms
PA341	Insulated wires and cables	PA467	Wooden and upholstered furniture and shop and office fittings
PA342	Basic electrical equipment	PA471	Pulp, paper and board
PA343	Electrical equipment for industrial use, and batteries and accumulators	PA472	Conversion of paper and board
PA344	Telecommunication equipment, electrical measuring equipment, electronic capital goods and passive electronic components	PA475	Printing and publishing
PA345	Miscellaneous electronic equipment	PA481	Rubber products
PA346	Domestic-type electric appliances	PA483	Processing of plastics
PA347	Electric lamps and other electric lighting equipment	PA491	Jewellery and coins
PA351	Motor vehicles and their engines	PA492	Musical instruments
PA352	Motor vehicle bodies, trailers and caravans	PA493	Photographic and cinematographic processing laboratories
PA353	Motor vehicle parts	PA494	Toys and sports goods
PA361	Shipbuilding and repairing	PA495	Miscellaneous manufacturing industries
		PA500	Construction
		PA1002	Summary volume

**PA320 INDUSTRIAL PLANT AND STEEL WORK**

PA320

The information in this report relates to businesses classified to the Industrial plant and steelwork industry Group 320 in the Standard Industrial Classification Revised 1980. The industry Group covers the following Activity Headings:-

**3204 Fabricated constructional steelwork**

**1. For buildings**

Manufacture of steel fabrications for industrial buildings including portable, prefabricated and temporary structures for factories and other industrial buildings, including plant supports and power station structures. Manufacture of steel fabrications, for other buildings, including portable, prefabricated and temporary structures for commercial, educational, domestic, hospital and agricultural buildings including metal greenhouses. Similar work in metals other than steel and incorporating other materials is included but metal frames and doors are classified to Group 314.

**2. For civil engineering works**

Manufacture of steel fabrications for civil engineering works including bridges, viaducts, tunnels, docks, jetties, towers and steel shuttering. Similar work in metals other than steel is included. Sectional structural steelwork for oil platforms is included and other platework fabrications for oil platforms are classified to heading 320.

**3205 Boilers and process plant fabrications**

**1. Boilers and boilerhouse plant**

Manufacture of water tube boilers, including heavy fabrications sold separately, and associated nuclear power equipment. Manufacture of shell and other boilers and boilerhouse plant including economic, vertical and other boilers for industrial use, process heaters, waste heat boilers and fuel handling systems for boilers. Marine boilers and space heating boilers are classified to Group 328.

**2. Process plant fabrications**

Manufacture of process pressure vessels, heat exchangers, condensers, columns, reactors and similar process fabrications (including those for processing nuclear fuels). Fabrications in metals other than steel and incorporating other materials are included.

**3. Other heavy fabricated steelwork in plate**

Manufacture of bunkers, silos, fabricated pipes and other heavy fabricated steelwork in plate, including floatation vessels and other fabrications of plate for offshore oil exploration and production platforms. Fabrications in other metals and incorporating other materials are included. Bins, tanks and bunkers in metal order 3 mm are classified to Group 316. Sectional platform fabrications of concrete to heading 502. Platform fabrications of concrete and specialists involved in the erection of fixed platforms are classified to Group 502. Specialists involved in the manufacture of complete floating oil rigs are classified to Group 361.

**In interpreting the data in the tables it is essential to bear in mind the notes and definitions which commence on page 4.**

**LIST OF CONTENTS**

	Page
Explanatory notes and definitions	4-7
Table 1 Output and costs, 1988-1992	8
Table 2 Capital expenditure, 1988-1992	9
Table 3 Stocks and work in progress, 1988-1992	9
Table 4 Employment, labour costs, output, net capital expenditure and stocks and work in progress by size of total employment, 1992	10-11
Table 5 Percentage analysis of twelve-month periods covered by returns received for the 1992 Census by number of returns and total employment	12
Table 6 Operating ratios, 1988-1992	12
Table 7 Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1992	13
Table 8 Output and costs by activity heading, 1992	14
Table 9 Capital expenditure by activity heading, 1992	15
Table 10 Stocks and work in progress by activity heading, 1992	15
Table 11 Operating ratios by activity heading, 1992	16

EXPLANATORY NOTES AND DEFINITIONS  
INTRODUCTION

1. These notes give basic information to help with the interpretation of tables in this Industry Report. More general information about the Census is given in a separate Business Monitor - Report on the Census of Production, Introductory Notes (PA1001).

2. Since 1980, Censuses have been conducted on the Standard Industrial Classification Revised 1980 SIC(80). The Standard Industrial Classification exists to promote uniformity and comparability in the official statistics of the United Kingdom. The SIC(80) is the result of an attempt to align the United Kingdom classification with the General Industrial Classification of Economic Activities within the European Communities (NACE). It is based on activity rather than commodities produced. A full description of SIC(80) is given in Standard Industrial Classification Revised 1980, obtainable from HMSO, price £4.25.

3. In 1990, however, the first revision of NACE was made by EC regulation. This regulation makes it necessary for the UK to introduce a new Standard Industrial Classification, SIC(92), based on NACE Rev 1. The regulation guarantees comparability between national and Community classifications and therefore between national and Community statistics. Full details of SIC(92) are given in 'Standard Industrial Classification 1992', obtainable from HMSO, price £17.50, reference ISBN 0 11 620551 2.

The first Census to be conducted on the basis of SIC(92) will be that for 1993. Business monitors published in respect of 1993 will contain data for that year only. However, a limited range of 1991 and 1992 data reworked to SIC(92) Section and Sub-Section level will be published as a supplement to the Census Summary Volume (PA1002).

REPORTING UNIT

4. From the earliest censuses of production until that for 1986 the reporting unit to the census was the establishment. This was defined as the smallest unit which could provide the full range of data required for an economic census. Establishments were asked where possible to exclude from their returns to the census any non-production activity.

5. In 1987, for a number of administrative and statistical reasons, a new system of company-based reporting was introduced. Under the new system the reporting unit to the census is, generally, the company, but there are some exceptions. These arise, for example, for large mixed activity companies which are asked to make separate returns to the census for each of their production activities on an establishment basis. Throughout this monitor this mixture of reporting units are referred to as "businesses". These businesses are no longer asked to exclude non-production activities.

6. In practice, since most businesses, both before and after the change, reported for the company as a whole, little difference to the main economic series has resulted from the change.

7. For most businesses, the returned data are appropriate to a single activity heading of SIC(80) and fall within a single geographical region. Where information covers a mixture of activities, the business is classified according to the main activity. Where the business operates at a number of different addresses then, in order to enable regional data to be compiled, separate information on employment and capital expenditure is sought for each address.

THE REGISTER

8. A register of businesses throughout the United Kingdom is held on the CSO computer and provides the basis for CSO inquiries. For each business the register contains identification particulars and information about its eligibility for inclusion in an inquiry, its relationship with other businesses in common ownership, its industrial classification, the nationality of its parent and location indicators for regional analyses. Regional and size analyses of manufacturing units are published in Business Monitor PA1003 - Size analyses of United Kingdom businesses.

9. The Annual Census and other CSO inquiries provide a major source of information for checking the register and updating employment data. Where businesses do not make returns to these inquiries, estimates of employment are imputed from VAT turnover. For businesses which have an imputed employment of 11 or more, the estimates are checked by means of register proving forms. For businesses on the register making returns to the Quarterly or Annual Sales Inquiries, industrial classification is reviewed annually and is derived from an analysis of their commodity sales. For other businesses the classification is obtained either from VAT sources or from the register proving forms. Estimates of employment made by the CSO and the Department of Employment differ because they are derived from two separate inquiries and use different procedures and employment definitions.

COVERAGE

10. The Census covers United Kingdom businesses engaged in industrial production, ie mining and quarrying, manufacturing, construction, and gas, electricity and water supply industries (Divisions 1 to 5 of SIC(80)). Businesses in the Channel Islands and the Isle of Man are excluded.

11. Under the sampling arrangements agreed for the 1992 Census, forms were despatched to all businesses with 100 or more employed and, for most production industries, samples of 1 in 4 and 1 in 2 respectively being taken for businesses in the 20 to 49 and 50 to 99 employment size bands. It was necessary to increase the sample in those industries where there were few businesses in the sample size band or where response in earlier years was poor. About 15,700 forms were despatched in the United Kingdom for the 1992 Census.

PERIOD COVERED

12. Businesses were asked to make returns for the calendar year 1992 but, where this was not possible, returns for business years ending between 6 April 1992 and 5 April 1993 were accepted. Returns covering fewer than twelve months were accepted for businesses which had started or ceased trading during the year.

ESTIMATION

13. All published Census results include estimates for non-responders, unsatisfactory returns and businesses not selected for the Census. Estimates are also made for items not covered in the shorter form sent to smaller businesses.

14. Within employment size groups in each industry, the "average per head" is calculated for each census variable by dividing the total returned value for each variable by the total returned employment. This value is multiplied by the employment thought to exist in each non-responding or non-selected business to yield an estimated value for

that business. Estimates for items not collected on the shorter form are made in a similar way using returned employment.

15. The accuracy of the totals produced by adding together estimates and returned data is mainly dependent on the level of response. The extent to which businesses making satisfactory returns account for the total employment of any industry is shown as a percentage in footnote (a) to table 1. Thus the accuracy of the data published in an Industry Report where 95 per cent of the employment in the industry is covered by the returns made will, in general, be better than that in an Industry Report where the coverage is only 70 per cent.

16. Additionally, the extent to which individual headings in an Industry Report are related to employment should be taken into account in assessing the accuracy of estimated data. Thus an estimate of total earnings which bears a close relationship to total employment is likely to be more accurate than an estimate of capital expenditure where the relationship to employment is not so clearly marked.

SUPPRESSION OF INFORMATION RELATING TO INDIVIDUAL UNDERTAKINGS

17. Sub-section 9(5)(b) of the Statistics of Trade Act 1947 states that:

"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 deducted from the total disclosed."

18. Figures which would be likely to disclose particulars relating to an individual undertaking are not published unless the contributor has given written consent for their publication.

CHANGES MADE FOR 1992

19. The 1992 census like that for 1991 was a slimline one. An additional question identifying those businesses with employees engaged in Research and Development work was included and the break down on capital and current costs associated with pollution prevention and solid waste management, introduced for the 1991 census, was retained. As part of the CSO's efforts to reduce the form filling burden on industry, the breakdown of questions on capital expenditure and stocks were excluded. Data for these variables in the 1992 results have been estimated from information collected in the CSO Quarterly Capital Expenditure and Stocks Inquiries.

SYMBOLS USED

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

- .. not available
- nil or less than half the final digit shown
- \* information suppressed to avoid disclosure
- R revised

ROUNDING OF FIGURES

21. Figures in the tables have been rounded to the nearest final digit where necessary and, in these instances, the sum of the constituent items may not always agree exactly with the total shown.

EXPLANATION OF TERMS USED IN THE CENSUS REPORT

22. The notes and definitions given in this section are based on the instructions given to respondents as to the way in which returns were to be completed.

CAPITAL EXPENDITURE

23. This represents the value charged to capital account together with any other amounts which ranked as capital items for taxation purposes during the year to which each return related. From 1988 contributors were asked to include the value of assets acquired as lessees under finance leasing arrangements. The value is inclusive of any amounts received or expected to be received in grants and/or allowances from government sources, statutory bodies or local authorities. Capital expenditure during the year in respect of production units where production had not started before the end of the year and the value of CAPITAL GOODS PRODUCED FOR USE WITHIN THE BUSINESS by its own staff are included. The value of any assets acquired in taking over an existing business is excluded. The figures include non-deductible VAT but exclude deductible VAT. No allowance is made for depreciation, amortisation or obsolescence.

a. on LAND AND EXISTING BUILDINGS

24. This represents the value of freeholds and the value or premium payable or receivable for leaseholds acquired or disposed of. The figures for acquisitions include architects' and surveyors' fees, legal fees, stamp duties, agents' commissions and Land Registry fees. The figures for disposals are net of any such professional fees payable.

b. on NEW BUILDING WORK

25. This represents the value of new building and other constructional work such as the extension and reconstruction of old buildings, and the value of any newly constructed buildings acquired. The figures include architects' and surveyors' fees, legal fees, stamp duties, agents' commissions and Land Registry fees.

c. on PLANT AND MACHINERY, VEHICLES

26. This represents the value of new and second-hand plant and machinery and vehicles acquired or disposed of. The figures for acquisitions are net of any discounts received but include the cost of transport and installation and Customs and Excise car tax. The figures for disposals exclude amounts written off for capital assets which are scrapped.

## CAPITAL GOODS PRODUCED FOR USE WITHIN THE BUSINESS

27. This represents the value of all work of a capital nature carried out during the year by the staff of, and for use in, the businesses covered by the returns.

## COST OF INDUSTRIAL SERVICES RECEIVED

28. This includes amounts payable to other organisations for work done on materials supplied by the business completing the return, for repairs and maintenance including those in respect of rented buildings, and for contracts which have been sublet. Direct payments to outworkers and amounts charged to capital account are excluded.

## COST OF NON-INDUSTRIAL SERVICES RECEIVED

29. Up to 1987 contributors were asked to include annual payments for assets acquired on a finance leasing basis. From 1988 they were asked to include the total value of such assets as capital expenditure during the year in which they were acquired. The cost of non-industrial services received includes commercial insurance premiums, bank charges and amounts payable to other organisations for the hire of vehicles, plant and machinery, for the rent of industrial and commercial buildings, for the services of accountants, auditors, agents, solicitors and surveyors other than in connection with the acquisition or disposal of capital assets, for postal and telecommunications services, for carriage by all forms of transport within the United Kingdom, for advertising, market research etc, for the right to use patents, trade marks, copyrights etc, for manufacturing and quarrying rights and technical knowledge. Interest payments and amounts payable for sea and air freight on goods exported and on materials and fuel imported are excluded.

## EMPLOYERS' NATIONAL INSURANCE CONTRIBUTIONS ETC

30. This includes employers' national insurance contributions under the Social Security Pensions Act 1975, commercial insurance premiums for policies providing pensions, superannuation or other retirement benefits, sickness benefits, personal accident benefits, disability benefits or death benefits for employees, including former employees, or their dependants. Also included are contributions to canteens, social centres, children's and holiday homes etc and the cost of supplying luncheon vouchers.

## EMPLOYMENT

31. This is the average number of ADMINISTRATIVE, TECHNICAL AND CLERICAL EMPLOYEES AND OPERATIVES on the payroll and the number of WORKING PROPRIETORS employed during the year of return. Full-time and part-time employees are included but outworkers (ie people who worked in their own homes on materials supplied by the business) and casual employees such as jobbers are excluded. The average number of employees returned by individual businesses may have been calculated by, for example, the average of the number of employees on the payroll for the last week of each calendar month.

### a. ADMINISTRATIVE, TECHNICAL AND CLERICAL EMPLOYEES

32. This includes directors who received a definite wage, salary or commission, managers, foremen, draughtsmen, editorial and advertising staff, travellers, all office employees and research and design employees except operatives.

### b. OPERATIVES

33. This includes all manual wage earners including operatives in power stations, operatives engaged in outside work of erecting, fitting etc, inspectors, maintenance workers and cleaners. Staff engaged in transport (including roundsmen) and employed in warehouses, stores, shops and canteens are included.

### c. WORKING PROPRIETORS

34. These are people who are regarded as self-employed for national insurance purposes, members of their families who worked in the business without receiving a definite wage or salary for at least half the normal working hours and directors who worked in the business but did not receive a definite wage, salary or commission. Part-time Directors paid by fee only and directors who received a definite wage, salary or commission are excluded.

## ENTERPRISE

35. This is defined as one or more businesses under common ownership or control.

## GROSS OUTPUT

36. This is calculated by adjusting the value of TOTAL SALES AND WORK DONE by the changes during the year of WORKING PROGRESS and GOODS ON HAND FOR SALE.

## GROSS VALUE ADDED AT FACTOR COST

37. This is calculated by deducting from NET OUTPUT the COST OF NON-INDUSTRIAL SERVICES RECEIVED, RATES and the cost of LICENSING OF MOTOR VEHICLES. This estimate of gross value added approaches more closely than NET OUTPUT the definition of net output or value added in national accounts statistics.

## GROSS VALUE ADDED AT FACTOR COST PER HEAD

38. This is calculated by dividing GROSS VALUE ADDED AT FACTOR COST by total EMPLOYMENT.

## NET CAPITAL EXPENDITURE

39. This is calculated by adding to the value of NEW BUILDING WORK acquisitions less disposals of LAND AND EXISTING BUILDINGS, VEHICLES and PLANT AND MACHINERY.

## NET OUTPUT

40. This is calculated by deducting from GROSS OUTPUT the cost of PURCHASES OF MATERIALS FOR USE IN PRODUCTION AND PACKAGING AND FUEL and PURCHASES OF GOODS FOR MERCHANTING OR FACTORING, the COST OF INDUSTRIAL SERVICES RECEIVED and is adjusted for net duties and levies etc where applicable. Purchases are adjusted for changes during the year of STOCKS OF MATERIALS, STORES AND FUEL.

## NET OUTPUT PER HEAD

41. This is calculated by dividing NET OUTPUT by total EMPLOYMENT.

## NON-INDUSTRIAL SERVICES RENDERED

42. This includes amounts charged for the hire of vehicles, plant and machinery, for the rent of industrial and commercial buildings, for the right to use patents, trade marks, copyrights etc, for manufacturing and quarrying rights, for technical know-how and for the provision of transport to other organisations. It also includes revenue from staff facilities such as canteens.

## OPERATING RATIOS

43. These ratios are calculated using industry totals, ie including the estimates for businesses not responding to or not selected for the Census. Respondents are able to compare the ratios for their own businesses with those for the industry as a whole.

## PURCHASES OF MATERIALS FOR USE IN PRODUCTION, AND PACKAGING AND FUEL. PURCHASES OF GOODS FOR MERCHANTING OR FACTORING

44. These include the cost of raw materials, components, semi-manufactured goods and workshop materials, replacement parts and consumable tools not charged to capital account, packaging materials of all types, stationery and printed matter, fuel, electricity and water, materials of all types used by the business or given out to others, for the production of machinery or other capital items used in the business, and materials used when working on goods supplied by customers. The figures exclude VAT, purchases of machinery and plant, which are included in CAPITAL EXPENDITURE, and amounts payable to transport firms or credited to the business's own transport departments for delivery of materials. The figures are net of the value of goods or packaging materials returned to suppliers and trade discounts receivable. Materials purchased duty-paid are included at their duty-paid value less drawbacks, rebates etc. Imported goods are included at their full delivered cost. If the transport from docks or airport of imported goods is not included in the cost of goods purchased, the cost is entered at cif plus duty, if applicable. Transfers of goods from other departments of the business not covered by the return are included at the estimated selling value recorded by the other departments.

## REMUNERATION PAID TO OUTWORKERS

45. This represents amounts paid to outworkers, ie people who do work in their own homes generally on a piece-work basis, whose names appear on the payroll. Amounts paid to outworkers by sub-contractors are included in the COST OF INDUSTRIAL SERVICES RECEIVED. Estimates are not made for remuneration of outworkers for businesses not completing Census returns.

## SALES OF GOODS PRODUCED

46. This represents sales of goods during the year, whether or not they were produced in the year of the return. It also includes sales of goods made from materials given out to other firms or to outworkers and sales of waste products and residues. The value of sales is the 'net selling value', ie the amount charged to customers whether valued 'ex-works' or 'delivered' less VAT, trade discounts, agents' commissions etc and allowances on returned goods. Where products attract Excise duty, the value includes duty if the goods are sold 'duty-paid', but excludes it if they are sold in bond or exported. The cost of packaging materials less allowances for returnable containers is included. Sales of fixed assets and exceptional receipts are excluded. Transfers of goods produced by a business to departments not covered by the return (including other businesses in the same enterprise group) are treated as sales, valued as if sold to an independent purchaser.

## STOCKS

47. This represents the value of goods on hand for sale, including goods for merchanting or factoring and of materials, stores and fuel held by businesses, whether held in the United Kingdom or

abroad. Values include any duty payable but exclude VAT.

## WAGES AND SALARIES

48. This represents amounts paid during the year to ADMINISTRATIVE, TECHNICAL AND CLERICAL EMPLOYEES and to OPERATIVES. All overtime payments, bonuses, commissions, holiday pay and redundancy payments, less any amounts reimbursed for this purpose from government sources, are included. No deduction is made for income tax or employees' national insurance contributions etc. Payments to WORKING PROPRIETORS, payments in kind, travelling expenses, lodging allowances etc and EMPLOYERS' NATIONAL INSURANCE CONTRIBUTIONS ETC are excluded.

## WORK DONE AND INDUSTRIAL SERVICES RENDERED

49. This includes amounts charged for work carried out including that done by sub-contractors on customers' materials and amounts charged for materials supplied in the course of such work. Industrial services such as repairs and maintenance, installation work and technical research and studies rendered to other organisations is also included. For certain industries this heading covers a wide variety of activities, for example, butter packed on commission in the food industries, making up of garments, fur dressing and textile finishing in the textile industries, and preparatory work on typesetting, block making and binding in the printing and publishing industries. Work done is an important part of the activities of the electrical machinery and heavy engineering industries, and includes erection, installation and repair and jobbing work.

## WORK IN PROGRESS

50. This represents materials which have been partially processed and are awaiting further processing before being sold or transferred. Progress payments made to sub-contractors are excluded and progress payments received from other organisations are not deducted.





TABLE 4

Employment, labour costs, output, net capital expenditure and stocks and work in progress by size of total employment, 1992

All United Kingdom businesses classified to the industry (a)

Size group	Busin- esses	Enterprise groups (b)	Employment			Wages and salaries (c)			
			Total including working proprietors	Opera- tives	Admini- strative,tech- nical and clerical	Operatives		Administrative, technical and clerical	
						Total	per head	Total	per head
Number	Number	Thousand	Thousand	Thousand	£ million	£	£ million	£	
1-9	1,827	1,826	5.8						
10-19	324	324	4.7						
20-49	340	337	10.4	19.2	10.2	264.7	13,792	178.7	17,608
50-99	136	131	9.5						
100-199	64	61	9.0	5.8	3.2	84.6	14,526	56.2	17,801
200-299	21	21	4.8	2.9	1.9	40.1	13,825	35.0	18,127
300-399	7	7	2.4	1.5	0.9	21.3	13,906	16.2	18,645
400-499	6	6	2.5	2.0	0.5	39.2	19,707	9.6	19,292
500-749	5	5	2.9	1.9	1.0	35.7	18,452	25.3	25,598
750-999	6	5	5.3	3.6	1.7	71.0	19,924	35.5	20,926
1,000-1,499	4	4	4.8	3.0	1.8	64.8	21,678	40.3	21,837
1,500-1,999	3	3	5.4	3.3	2.1	61.7	18,586	43.7	20,828
2,000-Plus	3	3	6.4	4.5	1.9	104.5	23,145	39.5	20,577
<b>Total</b>	<b>2,746</b>	<b>2,691</b>	<b>74.0</b>	<b>47.8</b>	<b>25.2</b>	<b>787.6</b>	<b>16,491</b>	<b>480.0</b>	<b>19,085</b>

(a) Businesses employing fewer than 20 persons are not required to complete census returns. Because of this, data for these businesses should be regarded merely as the best estimates available and used with caution.

(b) The count of enterprise groups shown in each row represents the number of enterprise groups, irrespective of size, owning the businesses shown in each size group. Because an enterprise group may own businesses in more than one size group, the sum of individual enterprise group counts may exceed the total for the industry.

(c) The cost of employers' contributions to the national insurance, pensions and welfare schemes and the running costs of canteens are excluded from the table but were estimated for the industry at £156.4 million. The remuneration of outworkers on returns received - also excluded from the table - was £13 thousand.

(d) Gross value added data relate to businesses employing 1-199.

Total sales and work done	Gross output	Net output	Gross value added at factor cost		Net capital expenditure	Total stocks and work in progress at end of year	
			Total	per head			
							£ million
1,621.2	1,616.2	798.1	26,258	(d)	(d)	35.0	212.0
496.3	497.0	250.8	27,929	841.3(d)	21,353(d)	10.8	63.9
344.5	334.5	120.8	24,991	94.5	19,563	6.4	64.5
125.0	129.5	59.0	24,563	42.2	17,568	2.6	21.3
200.4	193.9	100.9	40,602	79.9	32,160	1.2	19.5
238.6	237.5	97.1	33,216	59.5	20,363	7.6	17.5
392.2	391.4	233.0	44,296	201.9	38,384	10.6	48.1
401.8	401.0	174.3	36,041	144.5	29,882	8.7	66.6
296.5	293.7	169.1	31,202	149.5	27,591	3.3	31.2
528.0	510.4	206.8	32,150	174.8	27,174	4.9	73.9
<b>4,644.6</b>	<b>4,605.1</b>	<b>2,209.9</b>	<b>29,878</b>	<b>1,788.3</b>	<b>24,177</b>	<b>91.2</b>	<b>618.3</b>

TABLE 5

PA320

Percentage analysis of twelve-month periods covered by returns received for the 1992 Census by number of returns and total employment

Accounting year ended	Percentage of total returns received	Percentage of total employment
1992		
April 6-30	3.2	0.8
May	1.6	0.7
June	4.8	3.9
July	3.2	1.1
August	3.2	1.2
September	10.4	15.3
October	4.8	1.9
November	1.2	0.4
December	45.8	51.9
1993		
January	2.4	1.2
February	2.4	0.7
1 March - 5 April	16.9	21.0

TABLE 6

Operating ratios, 1988-1992

All United Kingdom businesses classified to the industry

	Unit	1988	1989	1990	1991	1992
Gross output per head	£	47,715	56,286	63,026	61,114	62,261
Net output per head	£	22,402	26,410	29,827	29,677	29,878
Gross value added per head	£	18,238	21,222	24,833	24,269	24,177
Gross value added as a percentage of gross output	%	38	38	39	40	39
Ratio of gross output to stocks		4.7	5.6	5.9	7.6	7.4
Wages and salaries as a percentage of gross value added	%	66	62	59	66	71
Ratio of operatives to administrative, technical and clerical employees		1.9	1.9	1.8	2.0	1.9
Wages and salaries per operative	£	11,509	12,563	14,109	15,477	16,491
Wages and salaries per administrative, technical and clerical employee	£	13,248	14,649	16,025	17,911	19,085
Net capital expenditure per head	£	1,422	1,923	1,818	1,442	1,233
Net capital expenditure as a percentage of gross value added	%	8	9	7	6	5

TABLE 7

PA320

Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1992  
All United Kingdom businesses classified to the industry

Area	Total employment (a)		Net capital expenditure (b)		Net output (c)		Gross value added at factor cost (c)	
	Thousand	per cent of United Kingdom	£ million	per cent of United Kingdom	£ million	per cent of United Kingdom	£ million	per cent of United Kingdom
Standard regions of England								
North	11.6	15.7	7.8	8.5	383.5	17.4	318.7	17.8
Yorkshire and Humberside	7.6	10.2	10.4	11.4	212.4	9.6	165.2	9.2
East Midlands	7.6	10.3	8.6	9.5	209.8	9.5	176.5	9.9
East Anglia	2.1	2.8	5.2	5.8	72.2	3.3	49.5	2.8
South East	7.8	10.5	8.9	9.8	205.7	9.3	159.0	8.9
South West	4.7	6.4	8.1	8.9	131.5	5.9	105.4	5.9
West Midlands	8.0	10.8	8.7	9.5	213.9	9.7	176.4	9.9
North West	7.0	9.4	6.6	7.3	183.4	8.3	146.7	8.2
England	56.3	76.1	64.4	70.6	1,612.3	73.0	1,297.4	72.6
Wales	3.1	4.2	5.4	5.9	93.4	4.2	73.3	4.1
Scotland	13.7	18.6	20.4	22.4	482.7	21.8	400.9	22.4
Great Britain	73.1	98.8	90.1	98.9	2,188.4	99.0	1,771.6	99.1
Northern Ireland	0.9	1.2	1.0	1.1	21.5	1.0	16.7	0.9
United Kingdom	74.0	100.0	91.2	100.0	2,209.9	100.0	1,788.3	100.0

(a) Average number employed during the year, including full and part-time employees 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 was treated similarly.

TABLE 8

PA320

Output and costs, 1992  
All United Kingdom businesses classified to each Activity Heading within the industry

	Unit	3204	3205
Enterprise groups(a)	Number	794	1,912
Businesses	"	821	1,925
Sales of goods produced	£ million	2,084.2	1,636.8
Work done and industrial services rendered	"	283.7	503.0
Capital goods produced for use within the business	"	2.1	1.4
Non-industrial services rendered	"	34.2	9.0
Goods merchanted or factored	"	44.8	45.5
<b>Total sales and work done</b>	"	<b>2,449.0</b>	<b>2,195.6</b>
Increase during the year, work in progress and goods on hand for sale	"	-18.5	-20.9
<b>Gross output</b>	"	<b>2,430.4</b>	<b>2,174.7</b>
Purchases of materials for use in production, packaging and fuel	"	746.3	834.8
Purchases of goods for merchenting or factoring	"	32.8	34.8
Increase during the year, stocks of materials, stores and fuel	"	-6.9	0.9
Cost of industrial services received	"	488.4	252.0
<b>Net output</b>	"	<b>1,156.0</b>	<b>1,053.9</b>
Total employment	Thousand	35.4	38.6
<b>Net output per head</b>	£	<b>32,643</b>	<b>27,337</b>
Cost of non-industrial services received			
Hire of vehicles, plant and machinery	£ million	40.1	17.7
Rents of industrial and commercial buildings	"	9.3	11.5
Commercial insurance premiums	"	19.1	16.1
Bank charges	"	1.6	1.9
Other non-industrial services	"	157.6	112.2
Licensing of motor vehicles	"	0.8	0.5
Rates, excluding water rates	"	17.2	16.0
<b>Gross value added at factor cost</b>	"	<b>910.3</b>	<b>878.0</b>
<b>Gross value added at factor cost per head</b>	£	<b>25,705</b>	<b>22,774</b>

(a) The count of enterprise groups shown in each column represents the number of enterprise groups owning the businesses shown for each activity heading. Because an enterprise group may own businesses in more than one activity heading, the sum of the enterprise group counts may exceed the total for the industry.

TABLE 9

PA320

Capital expenditure, 1992(a)  
All United Kingdom businesses classified to each Activity Heading within the industry

	3204	3205
Land and buildings		
New building work	6.0	2.3
Land and existing buildings		
Acquisitions	7.7	0.4
Disposals	2.3	3.8
Net	11.4	-1.1
Plant and machinery		
Acquisitions	33.0	55.5
Disposals	4.3	2.1
Net	28.7	53.4
Vehicles		
Acquisitions	2.8	4.2
Disposals	1.0	7.1
Net	1.8	-2.9
<b>Total net capital expenditure</b>	<b>41.9</b>	<b>49.4</b>

(a) See paragraph 19 of explanatory notes for changes in method introduced for the 1992 census.

TABLE 10

Stocks and work in progress, 1992(a)  
All United Kingdom businesses classified to each Activity Heading within the industry

	3204	3205
10a Increase during year		
Materials, stores and fuel	-6.9	0.9
Work in progress	-15.6	-21.7
Goods on hand for sale	-3.0	0.8
<b>Total</b>	<b>-25.4</b>	<b>-20.0</b>
10b Value at end of year		
Materials, stores and fuel	71.1	76.6
Work in progress	166.3	247.3
Goods on hand for sale	31.3	25.8
<b>Total</b>	<b>268.6</b>	<b>349.7</b>

(a) See paragraph 19 of explanatory notes for changes in method introduced for the 1992 census.

TABLE 11

PA320

Operating ratios, 1992

All United Kingdom businesses classified to each Activity Heading within the industry

	Unit	3204	3205
Gross output per head	£	68,630	56,410
Net output per head	£	32,643	27,337
Gross value added per head	£	25,705	22,774
Gross value added as a percentage of gross output	%	38	40
Ratio of gross output to stocks		9.0	6.2
Wages and salaries as a percentage of gross value added	%	68	74
Ratio of operatives to administrative, technical and clerical employees		2.0	1.8
Wages and salaries per operative	£	16,765	16,223
Wages and salaries per administrative, technical and clerical employee	£	18,864	19,272
Net capital expenditure per head	£	1,183	1,278
Net capital expenditure as a percentage of gross value added	%	5	6



HMSO publications are available from:

**HMSO Publications Centre**

(Mail, fax and telephone orders only)  
PO Box 276, London, SW8 5DT  
Telephone orders 071-873 9090  
General enquiries 071-873 0011  
(queuing system in operation for both numbers)  
Fax orders 071-873 8200

**HMSO Bookshops**

49 High Holborn, London, WC1V 6HB  
(counter service only)  
071-873 0011 Fax 071-873 8200  
258 Broad Street, Birmingham, B1 2HE  
021-643 3740 Fax 021-643 6510  
33 Wine Street, Bristol, BS1 2BQ  
0272 264306 Fax 0272 294515  
9-21 Princess Street, Manchester, M60 8AS  
061-834 7201 Fax 061-833 0634  
16 Arthur Street, Belfast, BT1 4GD  
0232 238451 Fax 0232 235401  
71 Lothian Road, Edinburgh, EH3 9AZ  
031-228 4181 Fax 031-229 2734

**HMSO's Accredited Agents**

(see Yellow Pages)

and through good booksellers

*'Brief extracts from this publication may be reproduced provided the source is fully acknowledged. Proposals for reproduction of larger extracts should be addressed to The Copyright Section, Room D.134, Central Statistical Office, Government Buildings, Cardiff Road, Newport, Gwent NP9 1XG'*

**£9.35 net**

© Crown copyright 1994  
First published 1994

Printed in the United Kingdom by  
HMSO at Cardiff from CRC supplied  
Dd. 0296947 C3 Cdf 107846 4/94

ISBN 0-11-536979-1



9 780115 369797