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Business Statistics Office

**Business Monitor**

**Report on the  
Census of Production**

**Electrical machinery**

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A publication of the Government Statistical Service

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# PA361

# Business Monitor

A publication of the Government Statistical Service

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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. These Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) or Q (quarterly) or M (monthly); and then by a number indicating the minimum list heading, or sub-division of a minimum list heading, of the Standard Industrial Classification (revised 1968).

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

### Government Statistical Service

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## Report on the Census of Production 1976

## Electrical machinery

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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PA361 ELECTRICAL MACHINERY

The information in this report relates to establishments classified to the Electrical machinery industry, minimum list heading 361 in the Standard Industrial Classification (revised 1968). The activities of the industry include:—

Manufacturing machinery for generating, transmitting and distributing electric power including electricity generators, turbines for electricity generation and transformers; starting and controlling gear for electric motors, and switchgear; electric motors (including electric traction motors and transmission equipment and associated rectifiers), and electrical machinery not reported elsewhere. Electrical equipment for motor vehicles, cycles and aircraft is 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 1

PA361

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

	Unit	1973	1974	1975	1976
Enterprises	Number	812	938	1,000	1,085
Establishments	"	938	1,073	1,150	1,257
Sales of goods produced	£ thousand	724,889	912,851	1,144,101	1,327,732
Receipts for work done and industrial services rendered	"	(b)	(b)	(b)	85,105
Capital goods produced for establishments' own use	"	2,750	1,739	1,497	2,159
Non-industrial services rendered	"	5,420	7,860	8,354	9,904
Goods merchanted or factored	"	50,519	83,250	89,104	151,060
<b>Total sales and work done (c)</b>	"	<b>783,578</b>	<b>1,005,699</b>	<b>1,243,056</b>	<b>1,575,959</b>
Increase during the year, work in progress and goods on hand for sale	"	15,244	68,653	88,476	94,367
<b>Gross output</b>	"	<b>798,822</b>	<b>1,074,352</b>	<b>1,331,532</b>	<b>1,670,327</b>
Purchases of materials for use in production, and packaging and fuel	"	369,690	583,578	687,227	682,981
Purchases of goods for merchenting or factoring	"	43,403	(d)	(d)	131,918
Increase during the year, stocks of materials, stores and fuel	"	20,103	41,928	5,877	16,310
Cost of industrial services received	"	14,885	25,872	31,571	44,465
<b>Net output</b>	"	<b>390,947</b>	<b>506,831</b>	<b>618,610</b>	<b>827,273</b>
Total employment (e)	Thousands	138.6	142.2	142.9	143.2
<b>Net output per head</b>	£	<b>2,822</b>	<b>3,564</b>	<b>4,330</b>	<b>5,777</b>
Payments for non-industrial services					
i Rents, hire of plant and machinery (f)(g)	£ thousand	3,153	4,867	5,546	7,625
Commercial insurance premiums	"	3,634	4,371	6,029	7,302
Bank charges	"	607	698	890	972
i Other non-industrial services (h)	"	15,404	23,046	31,474	44,531
Licensing of motor vehicles	"	218	237	321R	358
Rates, excluding water rates	"	4,600	6,686	8,451	9,626
<b>Gross value added at factor cost</b>	"	<b>363,332</b>	<b>466,925</b>	<b>565,899R</b>	<b>756,860</b>
<b>Gross value added at factor cost per head</b>	£	<b>2,622</b>	<b>3,283</b>	<b>3,961R</b>	<b>5,285</b>

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size. Satisfactory returns accounted for 81 per cent of employment within the industry.

(b) Included in Sales of goods produced.

(c) Details of manufacturers' sales of principal products are published regularly in Business Monitor PQ361.

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

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

(f) 1973 figures include hire of vehicles.

(g) For 1973-1975 rents of industrial and commercial buildings were not recorded separately. For 1974 the amount payable was £4,260 thousand.

(h) 1973-1975 figures include the cost of hiring goods vehicles.

TABLE 2

PA361

Capital expenditure, 1973 - 1976  
All United Kingdom establishments classified to the industry (a)(b)

	1973	1974	1975	1976
Land and buildings				
New building work	3,490	5,333	5,608	7,689
Land and existing buildings				
Acquisitions	1,747	1,341	1,379	1,412
Disposals	1,855	730	366	968
Vehicles				
Acquisitions				
Motor cars	2,093	2,117 )		
Other vehicles	599	656 )	2,972	4,840
Disposals				
Motor cars	668	648 )		
Other vehicles	85	57 )	742	1,198
Plant and machinery				
Acquisitions	15,980	22,256	25,328	30,759
Disposals	405	832	805	1,041
<b>Total net capital expenditure</b>	<b>20,894</b>	<b>29,437</b>	<b>33,374</b>	<b>41,494</b>

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size. Satisfactory returns accounted for 81 per cent of employment within the industry.

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

TABLE 3

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

	1973	1974	1975	1976
				Value at end of year
			Increase	
Materials, stores and fuel	20,103	41,928	5,877	16,310
Work in progress	16,011	57,763	80,255	88,174
Goods on hand for sale	-766	10,890	8,221	6,193
<b>Total</b>	<b>35,347</b>	<b>110,582</b>	<b>94,353</b>	<b>110,677</b>
				<b>648,603</b>

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size. Satisfactory returns accounted for 81 per cent of employment within the industry.

TABLE 4

PA361

PA361

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

Size group (b)	Estab-lish-ments (c)	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	Number	£ thousand	£	£ thousand	£
1 - 10	576	564	2,775						
11 - 19	211	199	3,057						
20 - 49	186	185	5,608	11,768	4,886	29,318	2,491	15,714	3,216
50 - 99	84	75	5,889						
100 - 199	61	57	8,784	6,209	2,564	15,751	2,537	8,017	3,127
200 - 299	38	30	9,044	5,878	3,159	15,231	2,591	10,488	3,320
300 - 399	20	18	6,998	4,404	2,594	12,142	2,757	8,429	3,249
400 - 499	11	11	4,820	3,265	1,551	8,860	2,714	5,062	3,264
500 - 749	26	23	16,168	10,291	5,877	29,665	2,883	19,534	3,324
750 - 999	17	11	14,350	9,415	4,935	24,024	2,552	16,214	3,286
1,000 - 1,499	10	4	12,659	7,281	5,378	22,233	3,054	16,884	3,139
1,500 - 1,999	3	3	5,455	3,174	2,281	10,140	3,195	8,646	3,791
2,000 - 2,499	4	3	8,895	5,653	3,242	17,016	3,010	11,313	3,490
2,500 - 2,999	3	3	7,894	5,312	2,582	12,041	2,267	8,682	3,363
3,000 and over	7	4	30,804	17,458	13,346	55,538	3,181	49,005	3,672
<b>Total</b>	<b>1,257</b>	<b>1,085</b>	<b>143,200</b>	<b>90,108</b>	<b>52,395</b>	<b>251,959</b>	<b>2,796</b>	<b>177,989</b>	<b>3,397</b>

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

(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.

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		
159,030	161,408	81,507	4,703	(j)	(j)	5,206	31,277
91,358	93,063	46,168	5,256	110,779(j)	4,242(j)	2,819	21,734
126,936	126,812	57,030	6,306	48,727	5,388	2,869	25,308
77,468	84,608	40,931	5,849	37,149	5,309	2,416	30,290
45,817	47,304	26,537	5,506	24,648	5,114	918	13,814
168,245	176,604	91,208	5,641	84,546	5,229	5,832	60,014
153,892	157,474	75,097	5,233	66,925	4,664	4,181	51,262
129,623	140,498	76,486	6,042	70,654	5,581	3,407	63,064
76,801	89,750	38,584	7,073	36,466	6,685	1,733	44,573
124,862	131,022	68,041	7,649	64,489	7,250	2,505	50,694
53,992	56,354	31,646	4,009	28,791	3,647	842	21,401
367,936	405,431	194,037	6,299	183,686	5,963	8,767	235,172
<b>1,575,959</b>	<b>1,670,327</b>	<b>827,273</b>	<b>5,777</b>	<b>756,860</b>	<b>5,285</b>	<b>41,494</b>	<b>648,603</b>

(f) The cost of employers' contributions to national insurance, graduated pensions, other pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £50,792 thousand. In addition, the remuneration of outworkers on returns received was £661 thousand.

(g) Sales of goods produced, capital goods manufactured, buildings constructed by establishments for their own use, work done, industrial and non-industrial services rendered and merchanted goods.

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

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

TABLE 5

PA361

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

Area	Total employment (a)		Net capital expenditure (b)(c)		Net output, gross value added and employment in the region from returns received from establishments with more than 80 per cent of their employment in the region (d)		
	Thousands	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	£ thousand	Employment as a percentage of total regional employment in the industry
Standard regions of England							
North	14.3	10.0	2,571	6.2	*	*	*
Yorkshire and Humberside	11.0	7.0	3,497	8.4	48,278	44,076	78.6
East Midlands	12.3	8.6	5,552	13.4	83,294	77,142	81.5
East Anglia	3.7	2.6	418	1.0	*	*	*
South East	25.6	17.9	6,603	15.9	75,403	66,690	52.9
South West	11.1	7.8	3,657	8.8	40,550	36,136	78.3
West Midlands	29.5	20.6	10,744	25.9	117,130	107,106	70.6
North West	19.8	13.8	5,224	12.6	58,692	53,405	50.4
England	127.4	89.0	38,267	92.2	501,022	457,335	69.0
Wales	3.9	2.7	710	1.7	*	*	*
Scotland	10.0	7.0	2,312	5.6	54,117	49,981	90.2
Great Britain	141.3	98.7	41,289	99.5	*	*	*
Northern Ireland	1.9	1.3	205	0.5	*	*	*
Unallocated (e)	—	—	—	—	248,983	228,056	—
United Kingdom (b)	143.2	100.0	41,494	100.0	827,273	756,860	

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

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

(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 was made of the net output and gross value added attributable to the region only where more than 80 per cent of the establishment's employees were located in the region. The estimate was made by assuming that net output and gross value added at each address covered by a return was proportional to employment at the address.

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

TABLE 6

PA361

Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 20 or more persons, 1976

Accounting year ended	Percentage of total returns received		Percentage of total number employed	
		per cent		per cent
1976	April (a)	1.3		0.5
	May	1.6		0.2
	June	4.3		1.7
	July	2.0		0.6
	August	0.3		0.0
	September	7.9		3.8
	October	4.3		5.4
	November	2.0		1.2
	December	39.9		39.5
1977	January	6.6		5.5
	February	2.3		2.5
	March (b)	27.4		39.0

(a) From 6th April.

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

TABLE 7

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

Sex	Full-time		Part-time		All employees	
		per cent		per cent		per cent
Male	76		—		76	
Female	20		4		24	

Source: Department of Employment

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

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

## GENERAL INFORMATION

### Changes made for 1976

The Census for 1976 is in line with similar inquiries being conducted in other member countries of the European Economic Communities. There was a small number of changes in the scope of the industry reports compared with 1975. These include separate headings for:

- Sales of goods produced
- Receipts for work done and industrial services rendered
- Amounts paid for hire of plant and machinery
- Amounts paid for rent of industrial and commercial buildings

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

### Suppression of information relating to individual 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 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 PQ1000.

## 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 (e.g. steel making or sugar refining). Typically the establishment embraces all the activities carried on at a single address e.g. a farm, a mine or a factory, including those which are ancillary to the principal activities. Frequently distinct activities characteristic of different industries are carried on at one address, but normally these are not classified separately and the whole establishment is classified according to the main activity. If, however, the required range of data can be provided for each activity, each is taken to constitute a separate establishment. Sometimes activities which are conducted as a single business are carried on at a number of addresses. Where this is so, businesses are asked to provide the full range of separate information in respect of each address; whether or not the activities are different. Their activities may, however, be integrated to such an extent that they constitute a single establishment. In the latter case the establishment is defined to cover the combined activities at these addresses (termed local units). Separate figures are obtained of employment and net capital expenditure at each unit in order to compile regional tables. Efforts are made by the Business Statistics Office to ensure, by negotiating with respondents, that the return from an establishment does not cover local units or addresses in more than one of the countries of the United Kingdom.

Further information about the statistical unit appeared in an article "The statistical unit in business inquiries" in Statistical News No.13 May 1971. Establishments are asked to exclude from their returns particulars relating to any department not engaged in production e.g. 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 PA1002) 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.

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

## Coverage

A return was required in the 1976 Census from each establishment with 20 or more employees. Each establishment is classified to an industry, as defined in the SIC, whose principal products form the major part of the establishment's sales.

## Regions

The regions defined in Table 5 take account of the boundary changes arising out of the Local Government Act 1972 and the Local Government Act (Scotland) 1973. These changes came into effect in April 1974 in England and Wales and May 1975 in Scotland.

## TERMS USED IN THE CENSUS REPORT

### Average number employed

Establishments were required to state the number of persons on the payroll on average during the year of return, whether full-time or part-time employees. Separate figures were required for:

- (a) administrative, technical and clerical employees
- (b) all other employees (operatives)

Averages could be calculated from the figures relating to the last week of each calendar month. Establishments were also required to state the

number of working proprietors where appropriate and these are included in total employment figures. Outworkers (i.e. persons employed by establishments who worked in their own homes etc. on materials supplied by the establishment) are excluded. The figures include persons engaged on merchandising 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, superintendents and works foremen; research and design employees (other than operatives); draughtsmen, editorial staff, advertising staff, travellers and all office employees.

Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They include operatives employed in power stations, transport (including roundsmen), warehouses, stores, shops and canteens, inspectors, maintenance workers and cleaners. Operatives engaged in outside work of erecting, fitting etc. are also included, but outworkers are excluded.

## Capital expenditure

Capital expenditure during the year in respect of manufacturing units where production had not started before the end of the year is included. Establishments were asked not to deduct from the value of capital expenditure amounts received or expected to be received in grants or allowances from the Government or any statutory body or local authority. Establishments with 100 or more employees were asked to include a total net capital expenditure figure for each calendar year.

### (a) New building work

This represents the cost incurred during the year of new building and other constructional work to be used in connection with the business covered by the return. The value is that charged to capital account during the year of return; it includes expenditure on new buildings and on the extension or reconstruction of old buildings, the value of works of a capital nature carried out by the establishment's own staff and the cost of any newly constructed buildings purchased. Figures shown include legal charges, stamp duties, agents' commissions, etc.

### (b) Land and existing buildings

The items shown are the capital cost of freeholds purchased and the capital cost or premium payable for leaseholds acquired (excluding the value of assets acquired in taking over an existing business), and the amounts receivable for freeholds or leaseholds disposed of. The value is that charged to capital account during the year of return.

### (c) Plant, machinery and vehicles

The items shown are the value of plant and machinery and of vehicles acquired, both new and second-hand, and the amount received for items disposed of during the year. The value of plant and machinery acquired includes plant, etc. which

firms produced for their own use in connection with the business covered by the return. The value of plant, etc. acquired is the expenditure charged to capital account during the year of return less any discounts received, but including the cost of transport and installation. Deductible value added tax is excluded but non-deductible value added tax on motor cars acquired is included. No deduction is made for depreciation, amortization or obsolescence. The proceeds of items disposed of during the year exclude amounts written-off for items scrapped.

#### Cost of Industrial services

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

#### Cost of non-Industrial services

This includes rent of industrial and commercial buildings, hire of plant and machinery, commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport, advertising etc. Amounts payable on royalties for the right to use patents, trademarks, copyrights etc., manufacturing and quarrying rights and technical "know-how" are also included.

#### Gross output

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

#### Net output

Net output, a customary census measure, is calculated by deducting from gross output the cost of purchases (reduced by the rise, or increased by the fall, during the year of stocks of materials etc.) and the cost of industrial services received, and where applicable, duties etc.

#### Net output per head

The figures of net output per head are derived by dividing the net output by the average number of persons employed (full and part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical employees and working proprietors, but excluding outworkers.

#### Gross value added at factor cost

Gross value added at factor cost is calculated by deducting from net output the cost of non-Industrial services (e.g. rent of buildings, hire of plant and machinery, commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport and advertising), rates (excluding water rates) and the cost of licensing motor vehicles. This estimate of gross value added approaches more closely than census net output to the definition of net output or value added in national accounts statistics.

#### Gross value added at factor cost per head

The figures of gross value added at factor cost per head are derived by dividing the gross value added by the average number of persons employed (full and part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical employees and working proprietors, but excluding outworkers.

#### Purchases

Purchases include the cost of raw materials,

components, semi-manufactured goods and workshop materials; of replacement parts and consumable tools not charged to capital account; of packaging materials of all types; of stationery and printed 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 1973. The values shown exclude VAT. They include, in addition to the actual purchase price, the value of packaging material charged to the establishment. The value of returned goods or packaging material returned 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 c.i.f. plus duty (if applicable). Leasing, renting and hire purchase charges are excluded.

#### Sales of goods produced

Sales for the purposes of the annual census means deliveries on sale of goods made by establishments in the United Kingdom covered by the inquiry. Sales of goods made for these establishments by outworkers or 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 value added tax) 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. Industries where products attract Excise Duty the value stated is usually inclusive of duty if sold duty-paid and exclusive of duty if sold in bond or exported.

#### Work done and Industrial services rendered

Figures for work done represent the amount charged for work carried out on materials supplied by customer and include repair work. Within certain

industries this heading covers a wide variety of activities, for example, within the food sector - butter packed on commission; within the textile industries - making up of garments, fur dressing and textile finishing; within printing and publishing - preparatory work on type-setting, block making and binding. Work done is also significant in the electrical machinery and heavy engineering industries, covering erection, installation and repair and jobbing work. Other activities within this heading include exploration work, research and development, glass cutting and dressing and planing of timber. Industrial services rendered include repairs and maintenance, installation work, and technical research and studies for other organisations.

Capital goods produced for establishments' own use This includes all work of a capital nature carried out during the year by the establishments' own staff for their own use.

#### Non-Industrial services rendered

This includes rents received for commercial and industrial buildings, amounts charged for hiring out plant, machinery and other goods and amounts charged to other organisations for the provision of transport. It also includes amounts received for the right to use patents, trademarks, copyrights etc., manufacturing and quarrying rights and technical "know-how" and revenue from such staff facilities as canteens.

#### Goods merchant or factored

Merchant goods are those (excluding canteen sales) sold without having been subjected to any manufacturing process by the seller.

#### Stocks and work in progress

Values are given of stocks of goods on hand for sale and of materials, stores and fuel, at the end of the year of return and of the change during the year, including any stocks of goods held for merchanting or factoring. Work in progress is defined as materials which have been partially processed by the establishment but which are not usually sold or transferred to another establishment without further processing. The values include the cost of materials consumed and labour used, together with a margin of overhead costs and profits. Progress payments made to sub-contractors are excluded and progress payments received from other organisations are not deducted.

#### Wages and salaries

These are amounts paid during the year to operatives and to administrative, technical and clerical employees. Payments to working proprietors, whether called salaries or not, are excluded. The values shown include all overtime payments, bonuses and commissions, whether paid regularly or not, and no deduction is made for income tax, insurances, contributory pensions etc. The value of redundancy payments less any amounts reimbursed from Government sources is included. The value of any payments in kind, travelling expenses etc. is excluded.

#### Remuneration paid to outworkers

The remuneration paid to outworkers (i.e. persons employed by the establishment who do their work in their own homes) is generally on a piece-work basis. Only amounts paid to outworkers whose names appear on the establishment's payroll are included. Amounts paid to outworkers by sub-contractors are excluded.

#### Employers' Insurance and welfare contributions

This item includes employers' contributions to national insurance and graduated pensions (and/or earnings related basic contributions under the

Social Security Act, 1973) as well as commercial insurance premiums to provide pensions, super-annuation or other retirement benefits, sickness benefits, personal accident benefits, disability or death benefits for employees or former employees or their dependants. Contributions to the running costs of canteens, social centres, children's and holiday homes, etc. for employees, former employees and their dependants are also included.

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This includes rent of industrial and commercial buildings, hire of plant and machinery, commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport, advertising etc. Amounts payable on royalties for the right to use patents, trademarks, copyrights etc., manufacturing and quarrying rights and technical "know-how" are also included.

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#### Goods merchanted or factored

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#### Stocks and work in progress

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