## PA211

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## Report on the <br> Census of Production

Grain milling

## PA211

## Business Monitor

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Report on the
Census of Production 1977

## Grain milling

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 )

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| РАЗ39. 2 | Printing, bookbinding and paper goods machinery | PA473 | Bedding, etc |
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|  | ventilating and air-conditioning equipment | PA475 | Wooden contain |
| PA339.5 | Scales and weighing machinery and portab | PA PA481 | Misc |
| PA339.7 | Food and drink processing machinery and | PA482.1 | Cardboard boxes, cartons and fibre-board packing cases |
|  | kaging |  | Packaging products of paper and associated materials |
| PA339.9 | Miscellaneous (non-electrical) machinery |  | Manufactured stationery |
| PA341 | Industrial (including process) plant and steelwork | PA484.1 | Wallcoverings |
| PA342 | Ordnance and small arms | PA484. 2 | Miscellaneous manufactures of paper and |
| PA3 | Ball, roller, plain and other bearings | PA485 | Printing, publishing of newspapers and periodicals |
| PA349. 2 | ngineering | PA489 | General printing and publishing |
| PA351 | Photographic and document copying equipment | PA492 | Rubber Linoleum, plastics floor-covering, leathercloth, et |
| PA352 | Watches and clocks | PA493 |  |
| PA354 | Scientical | PA494.1 | Toys, games and children's carriages |
| PA361 | Electrical machinery | PA494.3 | Sports equipment |
| PA362 |  | PA495 | Miscellaneous stationers' goods |
| PA363 | Telegraph and telephone apparatus and | PA496 | Plastics products |
|  | equipment | PA499 | Musical instruments |
| PA365 1 | Gramophone records and tape recordings | PA500 | Construction |
| PA365. 2 | Broadcast receiving and sound reproducing | PA601 |  |
|  |  | PA602 | Electris |
|  | Electronic computers | PA603 | Water supply |
| PA367 | Radio, radar and electronic capital goods | PA1002 | Summary tables |
| PA368 | Electrical appliances primarily for domestic use |  |  |

The information in this report relates to estabishments classified to the Grain milling industry, minimum list heading 211 in the Standard
Industrial Classification (revised 1968). The activities of the industry include:-

Milling wheat (including the production of self-raising and patent flour at milling establishments); milling, flaking or rolling barley, oats, maize, rye, rice, etc., the production of wheat and other grain offal, splitting or grinding peas, beans, lentils, soya beans, sago
tapioca, or manufacturing ready-to-eat breakfast cereals such as cornflakes, puffed or shredded wheat.

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

|  | Unit | 1973 | 1974 | 1975 | 1976 | 1977 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Enterprises | Number | 248 | 241 | 234 | 236 | 238 |
| Establishments | " | 303 | 301 | 293 | 289 | 293 |
| Sales of goods produced | £ thousand | 451,687 | 701,784 | 768,111 | 842,814 | 1,019,673 |
| Receipts for work done and industrial services rendered | " | (b) | (b) | (b) | 1,487 | 1,774 |
| Capital goods produced for establishments' own use | " | 309 | 631 | 734 | 811 | 1,185 |
| Non-industrial services rendered | " | 1,286 | 5,868 | 1,438 | 1.210 | 1.790 |
| Goods merchanted or factored | " | 28,501 | 30,918 | 29,298 | 40,508 | 57,654 |
| Total sales and work done (c) | " | 481,784 | 739,201 | 799,581 | 886,830 | 1,082,077 |
| Increase during the year, work in progress and goods on hand for sale | " | 3,199 | 3,967 | 541 | 4,387 | 3,532 |
| Gross output | " | 484,982. | 743,168 | 800,123 | 891,218 | 1,085,609 |
| Purchases of materials for use in production, and packaging and fuel | " | 344,641 | 545,034 | 583,445 | 634,734 | 782,811 |
| Purchases of goods for merchanting or factoring | " | 25.197 | 27,306 | 27,787 | 36,993 | 51,696 |
| Increase during the year, stocks of materials, stores and fuel | " | 12,585 | 9,451 | 5,931 | 4.209 | 14,215 |
| Cost of industrial services received | " | 3.010 | 4.749 | 5,425 | 8,091 | 13,402 |
| Net output | " | 124,719 | 175,530 | 189,396 | 215,609 | 251,915 |
| Total emoloyment (d) | Thousands | 20.6 | 20.2 | 19.4 | 18.4 | 18.8 |
| Net output per head | £ | 6,051 | 8.709 | 9,741 | 11,731 | 13,424 |
| Payments for non-industrial services |  |  |  |  |  |  |
| Hire of vehicles, plant and machinery | £ thousand | 790 | 1,078 | 1,440 | 641 | 1,248 |
| Rents of industrial and commercial buildings | " | (e) | (e) | (e) | 1,215 | 1,330 |
| Commercial insurance premiums | " | 1,536 | 1.806 | 2,248 | 2,552 | 3,361 |
| Bank charges | " | 112 | 315 | 422 | 214 | 340 |
| Other non-industrial services | " | 18,386 | 26,203 | 30,780 | 35,360 | 47,667 |
| Licensing of motor vehicles | " | 341 | 283 | 362 | 408 | 455 |
| Rates, excluding water rates | " | 1,744 | 1,975 | 2,923 | 3,132 | 3.009 |
| Gross value added at factor cost | " | 101,811 | 143,870 | 151,221 | 172,088 | 194,505 |
| Gross value added at factor cost per head | £ | 4,940 | 7,139 | 7,777 | 9,363 | 10,365 |

[^0] Satisfactory returns accounted for 87 per cent of employment within the industry.
(b) Included in sales of goods produced.
(c) Details of manufacturers' quarterly sales of principal products are published regularly in Business Monitor PQ211.
(d) Average number employed, including full and part-time employees (see table 7 ) and working proprietors.
(e) For 1973-1975 rents of industrial and commercial buildings were not recorded separately, but included in hire of vehicles, plant and
machinery.
table 3
Stocks and work in progress, $1973-1977$
All United Kingdom establishments classified to the industry (a)


[^1]Capital expenditure, 1973-1977

|  |  |  |  |  | £ thousand |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1973 | 1974 | 1975 | 1976 | 1977 |  |
| Land and buildings |  |  |  |  |  |  |
| New building work | 1.284 | 1,638 | 2.428 | 4,772 | 6,257 |  |
| Land and existing buildings |  |  |  |  |  |  |
| Acquisitions | 141 | 387 | 997 | 1.640 | 455 |  |
| Disposals | 362 | 838 | 135 | 309 | 199 |  |
| Vehicles |  |  |  |  |  |  |
| Acquisitions | 2,217 | 2,088 | 2,851 | 4,020 | 4.511 |  |
| Disposals | 685 | 506 | 586 | 819 | 851 |  |
| Plant and machinery |  |  |  |  |  |  |
| Acquisitions | 5.431 | 7.768 | 11,296 | 13,949 | 21,218 |  |
| Disposals | 290 | 398 | 106 | 209 | 1,050 |  |
| Total net capital expenditure | 7,736 | 10,138 | 16,745 | 23,044 | 30,342 |  |

Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons. Capital expenditure in respect of manufacturing establishments where production had not commenced before the end of the year, is
included.
table 4
Analysis of estabishments by size, 197


[^2](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 <br> and work <br> done (g) | Gross output | Net output |  | Gross value <br> alded at <br> factor cost |  | Net capital <br> expend iture <br> (h) | Total stocks <br> and work in <br> progress at |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| end of year |  |  |  |  |  |  |  |


| $1,082,077$ | $1,085,609$ | 251,915 | 13,424 | 194,505 | 10,365 | 30,342 | 102,603 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

The cost of employers' contributions to national insurance, pensions and welfare schemes and the running costs of canteens, is
estimated for the industry at $£ 11,375$ thousand.
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 industrial and non-industrial services rendered and merchanted goods.
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

Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 197

| Area | Total employment (b) |  | Net capita expenditure (c) |  | Net <br> output (d) | Gross value added at factor cost (d) | Gross value added at by establishmen 80 per cent or more of their employment in the region as a proportion of total gross value added a region |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Thousands | per cent of United Kingdom | £ thousand | per cent of United Kingdom | £ thousand | £ thousand | percentage |

Standard regions of
England

| North | 0.3 | 1.5 | 90 | 0.3 | 5,137 | 3.858 | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yorkshire and Humberside | 1.0 | 5.2 | 1,008 | 3.3 | 14,372 | 11,188 | 34.8 |
| East Midlands | 3.1 | 16.4 | 5,341 | 17.6 | 28,977 | 21,812 | 59.3 |
| East Anglia | 0.8 | 4.3 | 995 | 3.3 | 13,438 | 10,835 | 56.5 |
| South East | 5.8 | 31.2 | 7.898 | 26.0 | 73,618 | 53,481 | 51.9 |
| South West | 0.8 | 4.2 | 2,808 | 9.3 | 12,199 | 10,718 | 23.5 |
| West Midlands | 0.3 | 1.6 | 448 | 1.5 | 4,141 | 3,404 | 12.8 |
| North West | 4.7 | 24.9 | 3,576 | 11.8 | 68,571 | 53,635 | 86.6 |
| England | 16.8 | 89.3 | 22,166 | 73.0 | 220,452 | 168,931 |  |
| Wales | 0.4 | 1.9 | 6.746 | 22.2 | 6.136 | 4,906 |  |
| Scotland | 1.2 | 6.2 | 1,008 | 3.3 | 19,455 | 15,991 | 78.1 |
| Great Britain | 18.3 | 97.3 | 29,920 | 98.6 | 246,043 | 189.827 |  |
| Northern Ireland | 0.5 | 2.7 | 422 | 1.4 | 5,872 | 4.677 | 62.1 |
| United Kingdom | 18.8 | 100.0 | 30,342 | 100.0 | 251,915 | 194,505 |  |

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons.
(b) Average number employed, including full and part-time employees (see table 7 ) and working proprietors.
(c) New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.
(d) Where a census return covered addresses in two or more regions, an estimate of the net output attributable to each address was made by assuming that net output was proportionate to employment. An estimate for each region was obtained by aggregating estimates by assuming that net output was proportionate to employment. An estimate for each region was on
net output for addresses located in that region. Gross value added at factor cost is treated similarly.

| Accounting year ended |  | Percentage of total returns received | Percentage of total number employed |
| :---: | :---: | :---: | :---: |
| 1977 |  | per cent | per cent |
|  | April (a) | 4.4 | 1.1 |
|  | May | 0.0 | 0.0 |
|  | June | 4.4 | 8.0 |
|  | July | 2.9 | 8.3 |
|  | August | 1.5 | 0.5 |
|  | September | 13.2 | 17.1 |
| 1978 | October | 4.4 | 1.4 |
|  | November | 1.5 | 14.6 |
|  | December | 19.1 | 24.6 |
|  | January | 8.8 | 11.5 |
|  | February | 0.0 | 0.0 |
|  | March (b) | 39.7 | 12.9 |

Including returns made for twelve-month period ended 1st to 5th April 1978.

## table

Percentage analysis of employees, by full and part-time employment and sex, 1977(a)

| Sex | Full-time | Part-time | All employees |
| :---: | :---: | :---: | :---: |
|  | per cent | per cent | per cent |
| Male | 77 | 1 | 78 |
| Female | 18 | 4 | 22 |

## table 8

Operating ratios, 1977
All United Kingd
All United Kingdom establishments classified to the industry (a)

Gross output per head 57,850

Net output per head

Gross value added per head
Gross value added as a percentage of gross output

Ratio of gross output to stocks
Wages and salaries as a percentage of gross value added

Ratio of operatives to administrative, technical and clerical
employees

Wages and salaries per operative

Wages and salaries per administrative, technical and clerical
employee

Net capital expenditure per head
Net capital expenditure as a percentage of gross value added
(a) Including estimates for establishments not making satisfactory returns, non-response and establishments employing fewer than 20
notes give the main information needed for interpreting bation about the census is given in a separate Business - PA 1001 (Introductory Notes) of the Report on the of Production, 1977.
bal information
es made for 1977
Census for 1977 is in line with similar inquiries being cted in other member countries of the European Economic
nities. There was a small number of changes in the scope unities. There was a small number of ch
industry reports compared with 1976 . ne first time in the industry monitors a table has been on operating ratios, calculated from census measeres of
investment, manpower and labour costs. investment, manpower and labour costs.
changes are explained in the introductions to the industry by footnotes to the tables.
ssion of information relating to individual undertakings
(15) (b) of the Statistics of Trade Act 1947 states $9(5)$ (b) of the Statistics of Trade Act 1947 states.
ollowing provisions shall have effect with respect to any ollowing provisions shall have effect with respect to any
summary or other communication to the public of summary or other communication to the public of tion obtained under the foregoing provisions of this Act-
compiling any such report, summary or communication the petent authority shall so arrange it as to prevent any
iculars published therein from being identified as being iculars relating to any ind ividual person or undertaking with the previous consent in writing of that person or the
carrving on that undertaking, as the case may be; but or carying on that undertaking, as the case may be; but
provision shall not prevent the disclosure of the total ity or value of any articles produced, sold or delivered; so, er, that before disclosing any such total the competent
ity shall have regard to any representations made to shall have regard to any representations made to
by any person who alleges that the disclosure thereof enable particulars relating to him or to an undertaking on by him to be deduced from the total disclosed"".
 contributors were not approached the figure has been sed, either by combining it with other figures, or as in the mbining it with other
ols used
ollowing
ollowing symbols are used throughout the PA series of
t available
nil or less than half the final digit shown
figures cannot be shown owing to the risk of disclosing figures cannot be shown owing to
information about individual enterprises.
ding of figures
es in the tables
final digit. Whave, where necessary, been rounded to the final digit. Where figures have been so rounded, the sum constituent items may not always agree exactly with the
al classification
Uited Kingdom Standard Industrial Classification (SIC) was
ssued in 1948 and was subsequently revised in 1958 and It exists to promote uniformity and comparability in the statistics of the United Kingdom. The general principles ved are those of the International Standard Industreal
fication of all Economic Activities of the United Nations cation of all Economic Activities of the United Nations
cal Office but the United Kingdom SIC reflects the Sation and structure of industry and trade as it exists in the Kingdom. The SIC is a classification by activity and is mmod ity classification. However, an index of all commodity ors, is published in Business Monitor PQ 1000 .
tical units
estatical units
$h$ is defined in the surpose of the Census is the establishment
information normally required for an economic cansus, for
example, employment, expenses, turnover, capital formation. Usually
the principal activities carried on in an establishment fall within a the principal activities carried on in an establishment fall within a
single heading of the classification leg steel making or sugar single heading of the classification (eg steel making or sugar
refining). Typically the establisisment embraces all the activities carried on at a single address eg a mine or a factory, including those
which are ancillary to the principal activitiec. Frequently distint which are ancillary to the principal activities. Frequently distinct
activities characteristic of different industries are carried activites 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 reauired range of data can be provided for each
activity, each is taken to constitute a separate establishment. 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 ectivities are different Their 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 emoloyment and net capital expenditure at each unit in order to compile regional tables
Efter
Efots are made Efforts are made by the Business Stataistics Office (BSO) to ensure, by negotiating with respondents, that the return from an establish-
ment does not cover local units or addresses in more than one of ment 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 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 eg merchanting, transport, warehousing, for which they keep a separate set of
accounts. Transfers of goods produced to such departments are 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 thes activities in their return
Particulars relating to
istration of the production offices mainly engaged in the admin istration 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 enter prise group may be defined as a business consisting of either a
single establishment or two or more establishments under common
ownershio or control. 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 there will be no disclosure of the activities of any one enterprise
group. Information about the relationshio of establishments, the group. Intormation about the relationshio of estabishments,
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 Stock Exchange Year Book, company reports, press reports and

THE REGISTER
The register permits a questionnaire to be sent direct to the
reporting establishment on which the latter can include information reporting estabishment 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 detai
and structure. For the establishments on the register making returns 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, Emplovment data are entered on the register from returns to the annual census of production.
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 details are sought directly from new busin
to trade are removed from the live register.
Increasing use of the information obtained from the Department
of Employment, HM Customs and Excise and BSO inguries he of Employment, HM Customs and Excise and BSO inquiries has
led to improvements on the register, which in turn enabled the 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
A return was required in the 1977 Census from each establishment
with 20 or more
industry 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 regio
The regions defined in Table 5 take account of the boundary
changes arising out of the Local Government Act 1972 and th 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
Average number employed
Establishments were required to state the number of persons
on the payroll on average during the eear of return whether 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 emplovees loperatives)
Averages could be calculated from the fi

Averages could be calculated from the figures relating to the last week of each calendar month. Establishments werer also reeuurired
to state the number of working proprietors where approviate and these are included in total employment tigures. Outworkers
(ie persons employed by estal ishments who worked in their own (ie persons employed by establishments who worked in their own
homes etc on materials supplied by the establishment) are homes etc on materials supplied by the establishment) are
excluded. The figures include persons engaged on merchanting or excluded. The figures include eersons engaged on merchant of ther
ffactoring and canteen workers where particuars in respect of these
activities could not be excluded from the return.

Working proprietors
These include all persons regarded as "self-emploved" for national
insurance purpooses and members of their families who worked in insurance purposes and members of their families who worked in
the business without receiving a wage or salary; but such persons the business without receiving a wage or salary: but such persons
who worked less than half the normal number of working hours 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 of a definite wage, salary or commission are includ
heading: directors paid by fee only are iot 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 lother than 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 Operatives include all other classes of employees, that is, broadly
speaking, all manual wage earners. They include operatives employed speaking, all manual wage earners. They include operatives employed
in power stations, transport (lincluding roundsmen), warehouses, stores, shops and canteens, inspectors, maintenance workers and
cleaners. Operatives engaged in outside work of erecting, fitting Capital expenditure
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 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 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. expenditure figure for each calendar year.
(a) New building work
This represents the cos

This represents the cost incurred during the year of new building
and other constructiona 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
establ ishment's 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 acauired
(excluding the value of assets acauired in business), and the amounts receivable for freeholds or leaseholds disposed of. The value is that charged to capital account during
the year of return.

The items shant, machinery and vehicles
The items shown are the value of plant and machinery and
vehicles acauired,, both new and second-hand, and the amp
received for ter received for items disposed of during the year. The value of pla and machinery acquired includes plant, etc which firms produce for their own use in connection with the business covered by
return. The value of olant, etc acauired is the expend return. The value of plant, etc acquired is the expenditure char
to capital account during the year of return less any discoun to capital account during the year of return less any discount
received, but including the cost of transport and installation adduct tax on motor cars accuired is included. No dedible valis added tax on motor cars acquirred is incluted. No deduction
made for depreciation, amortization or obsolescence. The proces made for depreciation, amortization or obsolescence. The procea
of items disposed of during the year exclude amounts written-o for items scrapped.

Cost of industrial services
This includes amounts payable to other firms for work done
materials supplied by the establishment, payments for repairs materials supplied by the establishment, payments for repairs
maintenance (including those in respect of rented buildin and amounts paid to other firms for contracts which have bee sublet. Payments to outworkers are excluded.
Cost of non-industrial services
This includes rents of industrial and commercial buildings, of plant, machinery and vehicles (excluding vehicles hired , drivers), commercial insurance premiums, bank charges and amou
paid for professional services, post office services transport (with paid for professional services, post office services, transport
the United Kingdom), advertising etc. Amounts payable on r for the right to use patents, trademarks, copyrights etc, ufacturing and
also included.
Gross output
In the calculation of gross output the value of total sales and done is increased by the rise (or reduced by the fall) during
year in the value of work in progress and goods on hand year sale.
Net output
Net output, a customary census measure, is calculated by deduct from gross output the cost of purchases (reduced by the rise, increased by the fall, during the year of stocks of materials et
and the cost of industrial services received, and where applicab and the co
duties etc.
Net output per head
The figures of net output per head are derived by dividing
net output by the averee net output by the average number of persons emploved (full ad
part-time) on all activities covered by the returns, includ operatives, administrative, technical and clerical employees etors, but exclud ing outworkers.

Gross value aadded at factor cost
Gross value added at factor cost is calculated by deducting tro net output the cost of non-industrial services eg rent of buildin
hire of plant, machinery and vehicles (excluding vehicles hir hire of plant, machinery and venices lexclacing vehicles
with drivers), commercial insurance premiums, bank charges a amounts paid for professional services, post office services, transpo
(within the United Kingdom) and advertising, rates (exclud water rates) and the cost of licensing motor vehicles. This estim of gross value added approaches more closely than census output to the definition of net output or value added in natio accounts statistics.

Gross value added at factor cost per head
The figures of gross value
The figures of gross value added at factor cost per head are derii
by dividing the gross value added by the averag ner
by dividing the gross value added by the average number
persons employed (full and part-time) on all activities cover
by the returns, including operatives, administrative, technical
cerical
clerical employees and working proprietors, but excluding
Purchases
Purchases
Purchases
Purchases include the cost of raw materials, components, sen manufactured goods and workshop materials; of replacement p
and consumable tools not charged to capital account; of packag and consumable tools not charged to capital account; of packap
materials of all types; of stationery and printed matter; of fue electricity and water, of materials to be used by the establis lis
orgiven out to other establishments for the eroduction sf or given out to other establishments for the production of machi
or other canital items for the entablishment's or other capital items for the establishment's own use; of materis
for use by the establishment when working on goods supplied
customers; and of food, etc for any canteen covered by the estam 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

$\qquad$ Purchases of goods for merchanting or factoring have been
collected separately since 1977 . The values shown exclude VAT of packaging, material charged to the establishment. The value of of turned goous or packaging material retarned to suppliers and any
reade discounts are excluded. Materials purchased duty-aid are trade edscout
included at
The cost of ot their duty-paid value, less any drawback, rebate, etc price in the firm's accounts. Imported goods are with the III delivered cost. If in the firm's accounts the transport or arport is not included in the cost of goods purchased,
is entered at cif plus duty (if applicable). Leasing

## enting and hire purchas

Sales of goods produced
Sales tor the purposes of the annual censuses means deliveries on

sone
covered by the inquiry. Sales of goods made for these establishments
by outworkers or by ot her establishments from materials given out
by outworkers or by other establishments from materials given out
o them and sales of waste products are included. New building
ore work and machinery or other capital items producuced by establish-
nents for hiring out or leasing are regarded as sales et he lithe included in the return being that adopted in the establishments ${ }^{\prime}$
capital apiltal saseet accounts. Forward sales and canteen takings are excluded Al sales in the eeriod of the inquiry are included irrespective o
when the goods were manufactured. Goods produced in one shment and transferred either to ancillary departments not other 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 Goods transterred to wholesale or retail selling organisations,
which separate accounts are kept are valued on the same basis.
The value shown for sales in the "" The velue shown for sales in the "nat selling value", defifined as the
amount (excluding VAT) charged to customers whether on an

## commissions h

## products attrat of duty if so of exported.

delivered basis afted any tradtomers whetherounts and agents'
have been deducted. The cost of packing matenials
nce for reeturnableducted. The cases is included. In in industries where if sold duty-paid and exclusive of duty if sold in bond

Receipts for work done and industrial services rendered
res for work done represent the amount charged for work Within certain industries this heading covers a wide variety of is, for example, within the food sector-butter packed on
ission; within the textile industries - making up of garments. Iission, within the textile ind ustries - making up of garments,
resing and textile finishing; within printing and publishing tory work on type-setting, block making and binding. Work
is also significant in the electrical machinery and heavy eering industries, covering erection, installation and repair and
ng work. Other activities withint this headi ing include exploration research and activities within this heading include exploration
no of timber
Planing of timber.
nd dustrial services
lation
vices rendered include repairs and maintenance, insta-
and technical research and studies for other
goods produced for establishments' own use
includes all work of a a capital nature carried ou

## ndustrial services rendered

includes rents received for commercial and industrial buildings, nts charged for hiring out plant, machinery and venicles and
goods and amounts charged to other organisations for the goods and amounts charged to other organisations for the
sion of transport. It also includes amounts received for the to use patents, trademarks, copyrights etc, manufacturing uarrying rights, and technical "know-how" and revenue from Iff facilities as canteens.
merchanted or factored
lanted goods are those (excluding canteen sales) sold without
and 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 he change during the year, including any stocks of goods held fo merchanting or factoring. Work in progress is defined as materials 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 excluded and progress payments received from other organisations are not deducted.
Wages and salaries hese are amounts paid during the year to operatives and to dministrative, technical and clerical employees. Payments to The values shown include all overtime payments, boruses, comm The values shown include all overtime payments, bonuses, comm-
ssions and holiday pay, whether paid regularly or not, and no eduction is made for income tax, insurances, contributory pension tc. The value of redundancy payments less any amounts reimbursed
rom Government sources is included, The value of any payments from Government sources is included. The
in kind, travelling expenses etc is excluded.
Remuneration paid to outworkers
The remuneration paid to outworkers (ie persons employed by he 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
his item includes employers' contributions to national insurance (and/or earnings related basic contributions under the Social provide pensions, superannuation or other retirement benefits, sickness benefits, personal accident benefits, disability or death enefits for employees or former employees or their dependants. children's and holiday homes, etc for employees, former emplovees
and their dependants are also included.

Operating ratios
The operating ratios shown were obtained by dividing the estimate the industry total for the quantity shown in the numerator by corresponding estimate for the quantity shown in the
denominator. These estimates cover all establishments classified to the industry, including exempted establishments and nonrespondents. 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 industry. Hawever, it in important to bear in mind that various
factors may affect the results. - for example, differences in
defintions definitions, treatment of depreciation (which is not identified the census data) and varying practise with regard to stock
valuation, may affect comparability in some respects.
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[^0]:    (a) Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons.

[^1]:    Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons.

[^2]:    (a) Includ ing estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 persons.

