## PA332

## Business Statistics Office

## Business Monitor

## Report on the <br> Census of Production

## Metal-working machine tools

## Business Monitor <br> A publication of the Government Statistical Service

Special Note for Purchasers
Commencing with the 1971 Census, the Census of Production reports are being numbered in a uniform series embracing all industrial inquiries in the Business $P$ (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 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 or the Business Monitor series.

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Report on the Census of Production 1976

## Metal-working machine tools

Presented by the Secretary of State for Industry to Parliament in pursuance of the Statistics of Trade Act 1947 (10 \& il Geo. 6 Cha. 39 sec 7)

List of Industry Reports, etc.

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PA1001 Introductory notes
MA102 STone and Slste quarrying and mining 
Chato, clay, sand and gravel extraction
Miscellaneous mining and quarrying
l
l
Sugad mik products
Fruit and vegetable producl
Animal and poultry foods 
Margarine
Starch and miscellaneous foods
M
Spirit distilling and compounding
l
Cl
MMneral oil refining (ubricating oils and greases
l
M
M Parmaceutical cit
Paint (t)
Soap and detergents 
synthetic rubber s
l
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M
Formulated pesticides,
S
lron and steel (general
l
Aluminium and aluminium allovs
Copper, brass and other co
Agricultural machinery (except tractors)
Pumps
Compessors and fluid power equipment
M Industrial engines
Textile machinery and accessories
Construction and earth-moving e
Office machinery 
MP, (inting, bokbbinding and paper goods machinery
Refrigerating machinery, space-heating,
V ventilating and air-conditioning equipment
power tools 
packaging and bottling machinery
Miscellaneous (non-electrical) machinery 
M,
利㖕, roller, plain and other bearings 
Watches and clocks 
Surgical instruments and appliances
    Electrical machinery 
    Insulated w wes and cables 
Mequipment 
M,
PA365.1
lal
lacher,
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PA369.1 Electrical equipment for motor vehicles, cycles
The information in this report relates to establishments classified to the Metal-working machine tools industry, minimum list heading 332 in The Standard Industrial Classification (revised 1968). The activities of the industry include:

Manufacturing metal-cutting machine tools, boring, drilling, grinding and milling machines; lathes and other turning machines; machining centres; metal-forming machine tools, including forging machines and hammers, extrusion and other presses, wire-drawing machines and centres; metal-forming machine tools, including forging machines and hammers, extrusion and other presses, wire-drawing machines
sheet metal-working machines; all types of electric and gas welding machinery and equipment, flame cutting machines and welding sheet metal-working machines; all types of electric and gas welding machinery and equipment, flame cutting machines and weld
electrodes and rods, physio-chemical process cutting and forming mach ines including equipment for high energy rate forming, electroelectrodes machinery, ultrasonic erosion etc. Electron beams and laser machines for metal-working are included but rolling mills, portable power tools and metal manufacturing plant are excluded.

In interpreting the data in the tables it is essential to bear
4 Analysis of establishments by size, 1976 ..... 4.5
5 Regional distribution of employment, net capital expenditure, net output and gross value added6
7
7 Percentage analysis of employees, by full and part-time employment and sex, 1976 ..... 7

Output and costs, 1973-1976

|  | Unit | 1973 | 1974 | 1975 | 1976 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Enterprises | Number | 775 | 880 | 956 | 994 |
| Establishments | " | 826 | 936 | 1,022 | 1,071 |
| Sales of goods produced | £ thousand | 304,747 | 364,801 | 472,658 | 522,270 |
| Receipts for work done and industrial services rendered | " | (b) | (b) | (b) | 9,715 |
| Capital goods produced for establishments' own use | " | 799 | 411 | 702 | 1,046 |
| Non-industrial services rendered | " | 1,324 | 3,254 | 1,936 | 1,705 |
| Goods merchanted or factored | " | 35,878 | 37,057 | 46,664 | 39.657 |
| Total sales and work done (c) | " | 342,746 | '405,523 | 521,960 | 574,394 |
| Increase during the year, work in progress and goods on hand for sale | " | 8,876 | 35,565 | 1.268 | 24,876 |
| Gross output | " | 351,622 | 441,088 | 523,228 | 599,271 |
| Purchases of materials for use in production, and packaging and fuel | " | 134,001 | 185,581 | 212,835 | 232,690 |
| Purchases of goods for merchanting or factoring | " | 28,042 | 27,116 | 34,206 | 31,732 |
| Increase during the year, stocks of materials, stores and fuel | " | 10.050 | 15,696 | 6,462 | 2,504 |
| Cost of industrial services received | " | 10,487 | 18,883 | 17.715 | 19,027 |
| Net output | " | 189,142 | 225,203 | 264,935 | 318,326 |
| Total employment (d) | Thousands | 58.8 | 61.1 | 62.0 | 60.2 |
| Net output per head | £ | 3,218 | 3,684 | 4,271 | 5,284 |
| Payments for non-industrial services |  |  |  |  |  |
| Rents, hire of plant and machinery (e)(f) | £ thousand | 2,219 | 3,181 | 3,204 | 2,930 |
| Commercial insurance premiums | " | 1,905 | 2,191 | 2,720 | 3,444 |
| Bank charges | " | 302 | 369 | 553 | 621 |
| Other non-industrial services (g) | " | 11,455 | 12.990 | 19,567 | 26,113 |
| Licensing of motor vehicles | " | 107 | 113 | 151 | 175 |
| Rates, excluding water rates | " | 2,642 | 3.714 | 4.725 | 5,530 |
| Gross value added at factor cost | " | 170,512 | 202,644 | 234,015 | 279,512 |
| Gross value added at factor cost per head | £ | 2,901 | 3,315 | 3,773 | 4,640 |

[^0] Satisfactory returns accounted for 75 per cent of employment within the industry.
(b) Included with sales of goods produced.
(c) Details of manufacturers' sales of principal products are published regularly in Business Monitor PO332.
(d) Average number employed, including full and part-time employees (see table 7 ) and working proprietors.
(e) 1973 figures include hire of vehicles.
(f) For 1973-1975 rents of industrial and commercial buildings were not recorded separately. For 1976 the amount payable was $£ 1,583$ thousand.
1974-1976 figures include the cost of hiring goods vehicle

Capital expend iture, 1973-1976
Capita expeniture,
All United Kingdom establishments classified to the industry (a) (b)

|  | 1973 | 1974 | 1975 | 1976 |
| :---: | :---: | :---: | :---: | :---: |
| Land and buildings |  |  |  |  |
| New building work | 888 | 2,212 | 2,003 | 1,410 |
| Land and existing buildings |  |  |  |  |
| Acquisitions | 372 | 308 | 179 | 1,196 |
| Disposals | 1.858 | 320 | 59 | 372 |
| Vehicles |  |  |  |  |
| Acquisitions |  |  |  |  |
| Motor cars | 1,264 158 | 1.491) | 1,783 | 2,616 |
| Other vehicles | 158 |  |  |  |
| Disposals |  |  |  |  |
| Motor cars Other vehicles | 467 28 | 415) | 575 | 774 |
| Plant and machinery |  |  |  |  |
| Acquisitions | 8.166 | 11,439 | 9,795 | 14,497 |
| Disposals | 1,128 | 1,454 | 1.010 | 1,520 |
| Total net capital expenditure | 7,367 | 13,445 | 12,117 | 17,053 |

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size.
Satisfactory returns accounted for 75 per cent of employment within the industry Satisfactory returns accounted for 75 per cent of employment within the industry.
Capital expenditure in respect of manufacturing establishments where production had not commenced before the end of the year, is
included. included.
table 3
Stocks and work in progress, 1973-1976
All United Kingdom establishments classified to the industry (a)

|  | 1973 | 1974 | 1975 |  | 1976 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Increase |  |  |  | Value at end of year |
| Materials, stores and fuel | 10.050 | 15.696 | 6.462 | 2,504 | 61,614 |
| Work in prrgiess | 10,768 | 31,635 | $-2.437$ | 19,165 | 134,298 |
| Goods on hand for sale | -1,893 | 3,930 | 3.705 | 5.712 | 34,712 |
| Total | 18,926 | 51,261 | 7.730 | 27,380 | 230,624 |

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size. Satisfactory returns accounted for 75 per cent of employment within the industry.

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Total | 1,071 | 994 | 60,246 | 39,178 | 20,612 | 116,320 | 2,969 | 68,868 | 3,341 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

(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.

| 574,394 | 599,271 | 318,326 | 5,284 | 279,512 | 4,640 | 17,053 | 230,624 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

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 $£ 22,919$ 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.
(i) 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, 1976 Regional distribution of employment, net capital expenditure,
All United Kingdom establishments classified to the industry

| Area | Total <br> employment (a) | Net capital <br> expenditure (b) (c)' | Net outpot, gross value added and employment in <br> the region from returns received from estalalis- <br> ments with more than 80 per cent of their employ- <br> ment in the region (d) |
| :--- | :--- | :--- | :--- | :--- | :--- |


| Standard regions of England |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| North | 3.7 | 6.1 | 966 | 5.7 | 13,967 | 12,368 | 85.9 |
| Yorkshire and Humberside | 7.8 | 13.0 | 2.738 | 16.1 | 38,342 | 34,181 | 83.4 |
| East Midalands | 5.8 | 9.6 | 1.520 | 8.9 | 17,794 | 16,101 | 63.5 |
| East Anglia | 1.4 | 2.3 | 109 | 0.6 | 5,484 | 4.729 | 70.8 |
| South East | 13.2 | 21.9 | 4.079 | 23.9 | 47,465 | 40,873 | 59.1 |
| South West. | 2.3 | 3.8 | 687 | 4.0 | 9,674 | 8.663 | 76.6 |
| West Midiands | 18.2 | 30.2 | 3.441 | 20.2 | 62,190 | 54,368 | 72.2 |
| North West | 4.3 | 7.2 | 2,480 | 14.5 | 11,378 | 9,937 | 54.0 |
| England | 56.8 | 94.2 | 16.021 | 94.0 | 206,293 | 181,220 | 69.4 |
| Wales | 0.8 | 1.4 | 144 | 0.8 | 1,280 | 1,194 | 26.2 |
| Scotland | 2.6 | 4.4 | 887 | 5.2 | 9,905 | 8.531 | 62.1 |
| Great Britain | 60.2 | 100.0 | 17.052 | 100.0 | 217,479 | 190,945 | 68.5 |
| Northern Ireland | - | - | - | - | - | - | - |
| Unallocated (e) | - | - | - | - | 100,848 | 88,567 | - |
| United Kingdom (b) | 60.2 | 100.0 | 17.052 | 100.0 | 318,326 | 279,512 |  |

(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.

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

Accounting year ended
1976 April (a)
May
June
July
August
September
October
November
December
1977
February
March (b)
Percentage of total returns received

## $\frac{\text { Percentage of total number employed }}{\text { per cent }}$

3.7
0.3
0.3
0.2

From 6th April.
(b) Including returns made for twelve-month period ended 1st to 5 th April 1977.

TABLE 7
Percentage analysis of employees, by full and part-time employment and sex, 1976(a)
$\qquad$
Full-time
per cent
85
Part-time All employees

Male
Female
85
86

Source: Department of Employmen
(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at end June, 1976

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
PAloos (Introductory Notes) of the Report on the PA 1001 (Introductory Notes) of the Report on the
general information
$\begin{array}{llll}\text { Changes made for } & 1976 \\ \text { The Census for } & 1976\end{array}$
inquiries being conducted in in line with similiar
ind of the European Economic Communities. There was small number of changes in the scope of the
Industry reports compared with 1975. These include separate headings for:
Sales of goods produced
Recelpts for work done and industrial services rendered
Amounts paid for hire of plant and machinery
Amounts paid for rent of industrial Amounts paid for rent of industrial and
commercial bulldings Specific changes are explained in the introductions
to the industry reports or by footnotes to the 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 hav communication to the public of information obtained under the foregoing provisions of this Act
in complifing any such report, summary or in compliting any such report, summary or
communication the competent authority shall so arrange it as to prevent any particulars published therein from being identifled as being
particulars relating to any individual person or 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 total quant lity or value of any articless produced,
sold or delivered; so, however, that befor sold or delivered; so, however, that before shall have regard to any representations made to them by any person who alleges that the dis-
closure thereof would enable particulars relating to him or to an undertaking carried on by him to
be deduced from the total disclosed." be a figure involved disclosure the If a figure involved disclosure the contributor
concerned was somet imes 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 fitgure other figures, or as in the regional tables, by
omitting the figure altogether. omitting the figure altogether

Symbols used
The following symbols are used throughout the $P A$ serles of Business Monitors:
-. not avallable
figures cannot be shown owing to the risk of
disclosing information about individual enter
$R_{R} \begin{gathered}\text { prises } \\ \text { revised }\end{gathered}$
Rounding of figures
Fligures in the tables have, where necessary, been rounded to the nearest final digit. Where flgures
have been so rounded, the sum of the constituent have been so rounded, the sum of the constituent
items may not always agree exactly with the total

Industrial clas
The United
he United classification Standard Industrlal oxists to promote unlformity and comparabil. the official statistics of the United Kingdom, The general principles fol lowed 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 an index of all commodity headings for which
sales data are provided in the Quarterly Business Monitors, is published in Business Monitor PQioso. Statistical units
The statistical unit for the purpose of the Census ls the establishment which is defined in the sic
as the smallest unit which can provide the information normally required for an economic over, capital formation. Usually the principal activities carried on in an establishment fal
within a single heading of the classification within a single heading of the classification re.g. Steel making or sugar refining). Typically
the establishment embraces all the activitles
carried 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 whol
establishment is classifled according to the mal 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 actlvitles are of each address; whether or not the activitles are integrated to such an extent that they constitute a single establishment. In the latter case the
establishment is detined to cover the combined establishment is defined to cover the combined activities at these addresses (termed loca
units). Separate figures are obtained of
employment and net cap ital expenditure at each employment and net capital expenditure at
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 countries of the United Kingdom. Further information about the statistical unit busines
1971.
Establishments are asked to exclude from thel returns particulars relating to any department not
engaged in production e.g. merchanting transport, engaged in production e.g. merchanting, transport,
warehousing, for which they keep a separate set of wareousing, for which they keep a separate set
accounts. Transfers of goods produced to such departments are treated as sales and respondents are asked to value them as far as possible as
sold to an independent purchaser. Where separat accounts are not kept they are asked to include
detalls of all these activities in their return Particulars relating to head offices malnly engaged in the administration of the produc
units within the scope of the census included. Where more than one return was made the information in respect of the head office was apportioned among them.
for certain purposes in

## 

b
nformation about one enterprise group. ostabile companies and about common ownership links is
of Exchange Year mook, sources, including the Stock

THE REGISTER
The register permits a questlonnaire to be sent sirect to the reporting establishment on which
the latter can include information relating to all
he mane he manufa
ne inquirles provide a major source of information For keeping the register continuously up-to-date or the establishments on the register making returns to the quarterly inquiries, the Industrial
classification is derived from an analysis of their coles of commodities and is reviewed annually.
sale Elployment data are entered on the register from
eturns to the annual census returns to the annual census of production. In
cases where an establishment does not make ane ases where an establishment does not make a return to these Inquiries the employment data are based on
information provided by the Department of Employ-
nent from the annual censuses of employment. nent from the
Establ ishments
included ncluded in the censuses each year and ane inform-
ation they supply to the census is supplemented by
the returns that the returns that those with 25 or mople employees
rovide to the quarterly inquir rovide to the quarterly inquiries. Information
bout establishments with fewer than 20 employes
n most industries is less securely ncreasing use has been less securely based, but
 inloyment. One benefit of using this information
s an improvement in the estimates of the number of
nal ler establishments nal ler establ Ishments and enterprises, but there
is little effect on other aggregates (e.g. employis little effect on other aggregates
rent, output, net capital expenditure).
overage
return
return was required in the 1976 Census from each
stablishment with stabl ishment with 20 or more employees. Each
stabl ishment is classified to an Industry, as efined in the SIC, whose principal products form the major part of the estabilishment's sales.
ee regions defined in Table 5 take account of the oundary changes arising out of the Local
overnment Act 1972 and the Local Government Act overnment Act 1972 and the Local Government Act
sottand) 1973. These changes came into effect in
cril 1974 in England and Wales and May 1975 in

## otland.

USED IN THE CENSUS REPORT

## erage number employed

tablishments were required to state the number persons on the payroll on average during the
ar of return, whether full-time or part-time . Separate tigures were required for:
administrative, technical and clerical
employees employees (operatives)
all other emp
orages could be calculated from the figures orages could be calculated from the figures
lating to the last week of each calendar month.
tablishments were also required to state the
and these are included in where approprlate tigures. 0 are included in total employment
outwors (i.e. persons emp loyed by on materials supplied by the establishment) are the excluded. The flgures Inclue persons engaged on
merchanting or factoring and canteen workers where merchanting or factoring and canteen workers where
particulars in respect of these activities could
not be excluded bexluded from the return.
Working proprietors
These include all
empe include all persons regarded as "self-
for national insurance members of their families who worked in the the the the the and
business without receiving a wage or salary. but such persons who worked less wage or salary; but
number of working hours the normal
nexcluded. Directors orking in the business but not in recelpt of a definite wage, salary or commission are included
under this heading: directors paid by fee only are not included.
Emp loyees
Adm in istra
include dire, technical and clerical employees salary or commission, managers, a definite wage,
superintendents and works foremen; research and design emp loyees other than operatives); draughtsmen, editorlal office emp loyees. peratives include all other classes of employees, earners. They include operatives manual wage
power stations. ined in power stations, transport (including roundsmen),
warehouses, stores, shops and warehouses, stores, shops and canteens,
inspectors, maintenance workers and cleaners. Operatives engaged in outside work of erecting,
fitting etc. are also included, but outworker's
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. sstablishments were asked not to deduct from the expected to be recelved in grants or allowances rom the Government or any statutory body or local Establishments with 100 or more
mployees. were asked to include a total net
eapital expenditure figure for each alentar (a) New building work

This represents the cost incurred during the year
of new building and other constructional work to of new building and other constructional work to
be used in connection with the business covered by 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 bulldings, the value of or reconstruction of old bulldings, the value of
works of a capital nature carried out by the establishment's own staff $f$ and the cost of the newly constructed buildings purchased. Figures
shown include legal charges, stamp duties, agents
(b) Land and existing buildings
The items shown are the capital cos purchased and 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 recelvable for free-
holds or leaseholds disposed of. The value is holds or leaseholds disposed of. The value is
that charged to capltal account during the year of return.

## (c) Plant, machinery and vehicles The items shown are the value of plant and machinery and of venicles acquired, both new and second-hand, and the amount recel bed for tiems disposed of during the year. The value of plant disposed of during the year. The value of plant and machinery acquired includes plant, etc. which

firms produced for their own use in connection wit plant, etc. acquired is the expenditure charged to capital account during the year of return less any
discounts recelved, but including the cost of discounts recelved, but including the cost of
transport and instaliation. Deductible value added transport and installation. Deductible value added
tax is excluded but non-deductible value added tax
on motor cars acquired is included. No deduction on motor cars acquired is included. No deduction
is made for deprectation, amortization or obsolescence. The proceeds of items disposed of during
the year exclude amounts written-off for items the year
scrapped.
Cost of Industrial services
This includes amounts payable to other firms for work done on materials supplied by the establish-
ment, payments for (Including those in respect of rented maintenance
buildings) and amounts pald to other firms for contracts which
have been sublet. Payments to outworkers are excluded.
Cost of non-industrial services
uildincludes rent of industrial and commercial buldings, hire of plant and machinery, commerclal 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

Gross output
In the calculation of gross output the value of
total sales and work done is increased by the rise 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 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 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 div figures of net output per head are derived by
diving the net output by the average number of of
persons employed (full and part-time) on all
 employees and working proprietors, but excluding outworkers.
Gross value added at factor cost
deducting added at factor cost is calculated by industrial services (e.g. rent of buildings, hire of plant and machinery, commercial insurance
 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 of net outp
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 partutime) on all activities covered by the
retirns, including operatives, administrative, returns, including operatives, administrative, technical and clerical employees
proprietors, but excluding outworkers.

Purchases
Purchases include the cost of raw materials,
Purchases include the cost of raw materials,
components, semi-manufactured goods and worksho,
materlals; of replacement parts and consumat materlals; of replacement parts and consumab
tools not charged to capltal account; of packagit naterlals of all types; of statlonery and printe
 naterlals to be used by the establishment or give
out to other establishments for the production out to other establishments for the production
machinery or other capltal items for the esta Ishment's own use; of materlals for use by the the
istablishment when working on goods supplied customers; and of food, etc. for any cante covered by the establishment's return. Transfer
of goods to the establishment from another of goods to the establishment from another depar
ment of the same firm not covered by ment of the same tirm not covered
establishment's return are included at corresponding th to the are estimated selling val col
recorded by the other ater recorded by the other department. Amounts payab
to transport firms or credited to the firmis transport department for delivery of materlals excluded, as are all purchases of machinery plant charged to capital account. Purchases goods for merchanting or factoring have be
col lected separately since 1973 . The values sho colected separately since 1973. The values sho
exclude VAT. They include, in addition to actual purchase price, the value of packag naterial charged to the establishment. The val of returned goods or packaging materlal returne
to suppliers and any trade discounts are exclude Materials purchased duty-paid are included at the duty-pald value, less any drawback, rebate, The cost of transport is included only If
included with the purchase price in the Imported goods are included at the
accounts
full del ivered cost. If in the firm's accounts full delivered cost. If in the firm's accounts
transport from docks or airport is not included thansport from docks or airport is no port of goods purchased, the cost is entered c.i.t. plus duty (if applicable). Leasing, rent
and hire purchase charges are excluded.

Sales of goods produced
Sales for the purpose means delivertes on sale of the annual censuses
moods made lishments in the United Kingdom covered by the inquiry. Sates of goods made for these estabilshments 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 capltal items produced by establishments for hiring out or leasing estabilishments sales, the value included in the return being that adopted in the establlishment
capital asset accounts. Forward sales and cant capital asset accounts. Aorward sales and
takings are excluded. All sales in the perlid
the inquiry are included irrespective of
 goods were manufactured. Goods produced in one
establishment and transferred el ther 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 retall selling organisatlons, for which separate accounts
kept are valued on the same basis. The value shown for sales is the "net selll
value" defined as the amount (excluding val value" defined as the amount (excluding va
added tax) charged to customers whether on ex-works or delivered basis, after any tr
discounts and agents' commissions have be deducted. The cost of packing materials
allowance for returnable cases is included. allowance for returnable cases is included.
industries where products attract Exclse Duty value stated is usually inclusive of duty if sol duty-pald and exclusive of duty if sold in bond exported

Work done and industrial services rendered for work carried out on materials supplied b
ies this heading covers a wide varlety of ter packed on commission; within the textlle tustrles - making up of garments, fur dressing textile finishing; within printing and pub-
ning - preparatory work on type-setting, block ning - preparatory work on type-setting, block
ing and binding. Work done is also significant the lectrical machinery and heavy engineering
tustries, covering erection, installation and tries, covering erection, installation and sheading include exploration work, research and selopment, glass cutting and dressing and planing
ela timber
ustriai services rendered include repairs and intenance, installation work, and techn
search and studies for other organisations.
Ital goods produced for establishments' own use
includes all work of a capital dicling the year by the establishments 1 own
dur ff for their own use.
industrial services rendered
5 includes rents received for commercial and strial buildings, amounts charged for hiring
plant, machinery and other goods and amounts rged to other organisations for the provislon of
nsport. It also includes amounts received for nsport. It also includes amounts received for
right to use patents, trademarks, copyrights right to use patents, trademarks, copyrights
o, manufacturing and quarrying rights and tech, manunocturing and quarrying rights and techIIties as canteens.
 chs sold without having been subjected to any
evtacturing process by the seller.
oks and work in progress
end of mater of stocks of goods on hand for
eores and fuel, at the end $\theta$ and of materials, stores and fuel, at the end
the year of return and of the change during the chanting or factoring. Work goods held for
in progress is Ined as materlals which have been partially
ocassed by the estalismment but which are not Jly sold or transferred to another estab-
shment without further processing. The values
dude the cost of materlals consumed and labour lude the cost of mater ials consumed and labour
of, together with a margin of overhead costs and
fits. Progress payments made to sub Pits. Progress payments made to sub-
tractors are excluded and progress payments
olved from other organisations are not
are
$\theta$ are amounts paid during the year to
atives and to administrative, technical and and to administrative, technical and
employees. payments to working
s, whether called salar or or at, are
The values shown include all overtime The values shown include all overtime
bonuses and commissions, whether paid
or not, and no deduction is made for can ly or not, and no deduction is marances, contributory pensions for
valc. value of redundancy payments less any amounts
lnoursed from Government sources is value of any payments in kources is included.
vind, travelling enses otc. is excluded.
uneratlon pald to outworkers
remuneration paid to outworkers (1.e. persons
loyed by the establishment who do thelr work in
ir own homes) is generally on a plece-work
is. Only amounts pald to
Sor only amounts pald to outworkers whose names
ants the establishment's payroll are Included
sor on the establishment's payroll are included.
unts pald to outworkers by sub-contractors are
luded. cluded.
oyers 1 Insurance and wel fare contributions
Item includes tem includes employers' contributions to
insurance and graduated penslons (and/or insurance and graduated pensions (and/or
related basic contributions under the

Social Security Act, 1973) as well as cormerclal
insurance premiums to provide penslons, superInsurance premiums to provide penslons, superbenefits, personal retirement beneflts, slckness
accident benefits, disablility or death benefits for employees, or former
employees or their dependants. Contributions to amployees or their dependants. Contributions to
the running costs of canteens, soclal che running costs of canteens, social oentres,
children's and hollday homes, etc. for employees, former employees and their dependants are also
included.
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[^0]:    (a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size.

