## PA 271.2

## 1976

Business Statistics Office @ 42

## Business Monitor

## Report on the <br> Census of Production

Organic chemicals


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OF POLITICAL AND
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A publication of the Government Statistical Service

[^0]
## Report on the Census of Production 1976

## Organic chemicals

Presented by the Secretary of State for Industry to Pariament in pursuance of the Statistics of Trade Act 1947 ( 10 \& 11 Geo. 6 Cha. $39 \sec 7$ )

List of Industry Reports, etc.

| PA1001 | Introductory notes | A369.1 | Electrical equipment for motor vehicles, cycles and aircraft |
| :---: | :---: | :---: | :---: |
| PA102 | Stone and slate quarrying and mining | PA369.2 | Primary and secondary batteries |
| PA103 | Chalk, clay, sand and gravel extraction | PA369.4 | Electric lamps, electric light fittings, wiring |
| PA104 | Petroleum and natural gas |  |  |
| PA109 | Miscellaneous mining and | PA3\% | Shipbuilding |
| PA211 | Grain milling | PA38 | Wheeled tractor manufacturing |
| PA212 | Bread and flour confectionery | PA381.1 | Motor venicle manufacturing |
| PA213 | Biscuits | PA381.2 | Trailers, caravans and treight conta |
| PA214 | Bacon curing, meat and fish products | PA382 | Motor cycle, tricycle and pedal cycle m |
| PA215 | Milk and milk products | ${ }_{\text {PAA }}^{\text {PA38 }}$ | Aerospace equipment manufacturing and repairing |
| PA216 | Sugar | PA384 | Locomotives, railway track equipment, railway carriages, |
| PA217 | Cocoa, chocolate and sugar confectionery | P4390 | Engineers' small tools and gauges |
| PA218 | Fruit and vegetable products | PA391 | Hand tools and implements |
| PA221 | Animal and poultry foods | PA392 | Cutlery, spoons, forks and plated tableware, etc. |
| PA229. | Margarine | PA393 | Bolts, nuts, screws, rivets, etc. |
| PA229. 2 | Starch and miscellaneous foods | PA394 | Wire and wire manufactures |
| PA231 | Brewing and malting | PA395 | Cans and metal boxes |
| PA232 | Soft drinks | PA396 | Jewellery and precious metals |
| PA239.1 | Spirit distilling and compounding | PA399.1 | Metal furniture |
| PA239.2 | British wines, cider and perry | PA399.5 | Drop forgings, etc. |
| PA240 | Tobacco | PA399.6 | Metal hollow ware |
| PA261 | Coke ovens and manufactured fuel | PA3999.8 | Miscellaneous metal manufactur |
| PA262 | Mineral oil refining | PA411 | Production of man-made fib |
| PA263 | Lubricating oils and greases | PA412 | Spinning and doubling on the cotton and flax systems |
| PA271.2 | Organic chemicals | PA414 | Woollen an |
| PA271.3 | Miscellaneous chemicals | PA415 |  |
| PA272 | Pharmaceutical chemicals and prepar | PA416 | Rope, twine and net |
| PA273 | Toilet preparations | PA417.1 | Hosiery and other knitted goods |
| PA274 | Paint | PA417.2 | Warp knitting |
|  | Soap and detergents | PA418 | Lace |
| PA276 | Synthetic resins and plastics materials and | PA419 | Carpets |
|  | Dyestuffs and pigments | PA422.1 | Household textiles and handke |
| PA278 | Fertilizers | PA422. 2 | Canvas goods and sacks and other made-up textiles |
| PA279.1 | Polishes | PA423 | Textile finishing |
| PA279.2 | Formulated adhesives, gelatine, etc. | PA429.1 | Asbestos |
| PA279.3 | Explosives and fireworks | PA429.2 | Miscellaneous textile industries |
| PA279.4 | Formulated pesticides, etc. | PA431 | Leather (tanning and dressing) and fellmongery |
| PA279.5 | Printing ink | PA432 | Leather goods |
| PA279.6 |  | PA433 |  |
| PA279.7 | Photographic chemical materials | PA441 | Weatherproof outerwe |
| PA311 | Iron and steel (general) | PA442 | Men's and boys tailored outerwe |
| PA312 | Steel tubes | PA443 | Women's and giris tailored outerwear |
| PA313 | Iron castings, etc. | PA444 | Overalls and men's shirts, underwear, etc. |
| PA321 | Aluminium and aluminium alloys | PA445 | Dresses, lingerie, infants wear, etc. |
| PA322 | Copper, brass and other copper alloys | PA446 | Hats, caps and millinery |
| PA323 | Miscellaneous base metals | PA449.1 | Corsets and miscellaneous dress industries |
| PA331 | Agricultural machinery (except tractors) | PA449. 2 | Gloves |
| PA332 | Metal-working machine tools | PA450 | Footwear |
| PA333.1 | Pumps | PA461.1 | Refractory goods |
| PA333. 2 | Valves | PA461.2 | Building bricks and non-refractory goods |
| PA333.3 | Compressors and flu | PA462 | Pottery |
| PA334 | Industrial engines | PA463 | Glass |
| PA335 | Textile machinery and accessories | PA464 | Cement |
| PA336 | Construction and earth-moving equipment | PA469. 1 | Abrasives |
| PA337 | Mechanical handling equipment | PA46912 | Miscellaneous building materials and mineral products |
| PA338 | Office machinery | PA471 | Timber |
| PA339. 1 | Mining machinery | PA472 | Furniture and upholstery |
| PA339.2 | Printing. bookbinding and paper goods machinery | PA473 | Bedding, etc. |
| PA339.3 | Refrigerating machinerr, space-heating, ventilating and air-conditioning equiome | PA474 | Shop and office fitting Wooden containers and baskets |
| РАзз9.5 | Ventilating and air-conditioning equipment | PA475 | Woocen containers and baskets |
|  | power tools | PA481 | Paper and board |
| PA339.7 | Food and drink processing machinery and | PA482.1 | Cardboard boxes, cartons and fibre-board packing cases |
| PA339.9 | packaging and bottling machinery Miscellaneous (nonelectrical) machinery | ${ }_{\text {PA4 } 4832}$ | Packaging products of paper and associated materials Manufactured stationery |
| PA341 | Industrial (including process) plant and steelwork | PA484.1 | Wallcoverings |
| PA342 | Ordnance and small arms | PA484.2 | Miscellaneous manufactures of paper and board |
| PA349. 1 | Ball, roller, plain and other bearings | PA485 | Printing, publishing of newspapers and periodica |
| PA349. 2 | Precision chains and other mechanical engineering | PA489 | General printing and publishing |
| PA351 | Photographic and document copying equipment | PA491 | Rubber |
| PA352 | Watches and clocks | PA492 | Linoleum, plastics floor-covering, leathercloth, etc. |
| ${ }_{P}^{\text {PA }}$ P 354 | Surgical instruments and appliances | PA493 | Brushes and brooms |
| ${ }^{\text {PA }}$ PA354 614 | Scientific and industrial instruments and system | PA494.1 | Toys, games and children's carriage |
| ${ }_{\text {PA362 }}$ | Electrical machinery | PA494. 3 | Sports equipment |
| ${ }_{\text {PAA363 }}$ | Insulated wires and cables | PA495 | Miscellaneous stationers' goods |
| PA363 | Telegraph and telephone apparatus and equipment | PA496 <br> PA499. 1 | Plastics products |
| 364 | Radio and electronic components | PA499. 2 |  |
| PA365.1 | Gramophone records and tape recordings | PA500 | Construction |
| PA365. 2 | Broadcast receiving and sound reproducing | PA601 | Gas |
|  | equipment | PA602 | Electricity |
| PA367 | Radio, radar and eleetronic capital goods |  | Water supply |
|  |  |  |  |

The information in this report relates to establishments classified to the General chemicals (organic) industry, minimum list heading 271.2 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

Manufacturing separate chemically defined organic compounds (i.e. compounds containing carbon, but excluding condensates, polymers Mand copoly mers, elemental carbon and certain simple carbon compounds such as calcium carbide, carbon disulphide and carbon dioxide). Products of the tar distillation and benzole refining are included. Radio-active organic compounds and isotopes, mixtures of chemicals, and certain compounds used mainly for specific end-uses (such as simple phosphate or phthalate plasticiser chemicals), organic
pharmaceutical chemicals and prepared products derived from organic chemicals, such as dyestuffs, pesticides preparations and pharmaceuticas preparations are all excluded.

In interproting 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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Capital expenditure, 1973-19763
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5 Regional distribution of employment, net capital expenditure, net output and gross value added
Regional distribution
6 Percentage analysis of twelve-month periods covered by returns received from United7
7 Percentage analysis of employees, by full and part-time employment and sex, 1976

Output and costs, 1973.1976
All United Kingdom establishments classified to the industry (a)

|  | Unit | 1973 | 1974 | 1975 | 1976 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Enterprises | Number | 81 | 87 | 88 | 92 |
| Establishments | . | 113 | 120 | 126 | 130 |
| Sales of goods produced | £ thousand | 724,085 | 1,344,486 | 1,398,096 | 1,946,926 |
| Receipts for work done and industrial services rendered | " | (b) | (b) | (b) | 19,296 |
| Capital goods produced for establishments' own use | " | 7.340 | 21,460 | 14,052 | 16.103 |
| Non-industrial services rendered | " | 11,417 | (c) | 18,067 | 16.621 |
| Goods merchanted or factored | " | 64,483 | 178,301 | 174,927 | 298,176 |
| Total sales and work done (d) | " | 807,325 | 1,544,246 | 1,605,142 | 2,297,122 |
| Increase during the year, work in progress and goods on hand for sale | " | 7.906 | 61,542 | 11,426 | 60,845 |
| Gross output | " | 815,231 | 1,605,787 | 1,616,568 | 2,357,967 |
| Purchases of materials for use in production, and packaging and fuel | " | 458.631 | 1,036,254 | 1,013,630 | 1,464,660 |
| Purchases of goods for merchanting or factoring | " | 59,162 | 134,820 | 153.289 | 269,431 |
| Increase during the year, stocks of materials, stores and fuel | " | 15,835 | 33,256 | 4.182 | 21,234 |
| Cost of industrial services received | " | 21,723 | 35,946 | 47,669 | 53,409 |
| Excise payments etc. (net) | " | 20,549 | (e) | (e) | (e) |
| Net output | , | 271,001 | 432,024 | 406,162 | 591,701 |
| Total employment (f) | Thousands | 35.5 | 35.4 | 36.1 | 36.2 |
| Net output per head | £ | 7,629 | 12,196 | 11,251 | 16,355 |
| Payments for non-industrial services |  |  |  |  |  |
| Rents, hire of plant and machinery $(g)(h)$ | £ thousand | 5.709 | 6,366 | 8,234 | 11,238 |
| Commercial insurance premiums | " | 3,771 | 5.780 | 7.207 | 8,278 |
| Bank charges | " | 57 | 87 | 212 | 94 |
| Other non-industrial services ( $j$ ) | " | 31.106 | 40,503 | 53,144 | 70,015 |
| Licensing of motor vehicles | " | 167 | 144 | 195 | 211 |
| Rates, excluding water rates | * | 5,989 | 7,963 | 10,149 | 11,038 |
| Gross value added at factor cost | " | 224,203 | 371,182 | 327,021 | 490,828 |
| Gross value added at factor cost per head | £ | 6,311 | 10,479 | 9,058 | 13,567 |

[^1]Analysis of establishments by size, 1976
All United Kingdom establishments classified to the industry (a)

| $\begin{aligned} & \text { Size } \\ & \text { group } \\ & \text { (b) } \end{aligned}$ | $\begin{aligned} & \text { Estab- } \\ & \text { lish- } \\ & \text { ments } \end{aligned}$ | Enter- <br> prises <br> (c) | Employment |  |  | Wages and salaries (f) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total <br> (d) | $\begin{aligned} & \text { Opera- } \\ & \text { tives } \end{aligned}$ | Others <br> (e) | Operatives |  | Others (e) |  |
|  |  |  |  |  |  | Total | ${ }_{\text {per }}$ | Total | per |
|  |  |  |  |  |  |  |  |  |  |
|  | Number | Number | Number | Number | Number | £ thousand | £ | £ thousand | £ |


$\qquad$

| Total | 130 | 92 | 36,178 | 22,486 | 13,653 | 82,454 | 3,667 | 66,764 | 4,890 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

(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 | $\begin{aligned} & \text { per } \\ & \text { head } \end{aligned}$ | Total | $\begin{aligned} & \text { per } \\ & \text { head } \end{aligned}$ |  |  |
| £ thousand | £ thousand | £ thousand | £ | £ thousand | £ | f thousand | £ thousand |
| 109,781 | 111,267 | 34,882 | 14.510 | (j) | (j) | 5,602 | 15,001 |
| 233,386 | 240,071 | 53,587 | 13,765 | 75,221(j) | 11,945(j) | 77,463 | 31,900 |
| 72,408 | 74,934 | 23,684 | 11,702 | 20,394 | 10,076 | 8,034 | 14.134 |
| 214,184 | 219,091 | 55,985 | 16,432 | 50,841 | 14,923 | 10,085 | 25,435 |
| 248,446 | 253,565 | 68,297 | 19,239 | 57,237 | 16.123 | 12,997 | 32,662 |
| 1,418,917 | 1,459,038 | 355,266 | 16,998 | 287.135 | 13,739 | 167,084 | 186.863 |


| $2,297,122$ | $2,357,967$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $5868^{3}$ |$\quad 591,701 \quad 16,355 \quad 490,828 \quad 13,567 \quad 281,267 \quad 305,995$

(f) The cost of employers' contributions to national insurance, graduated pensions, other pensions and welfare schemes and the running
(I)
(g) Sales of goods produced, capital goods manufactured, buildings constr
(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 1-299.
table 5
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 | I851052 इาutbry | Total employmen | ent (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 employ. ment in the region (d) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ${ }^{169}$ | 18507 | $\begin{aligned} & \text { 1999 } \\ & \text { bsogit } \end{aligned}$ | Net output | Gross value added at factor cost | Empl percen region in the | yment as a tage of tota employmen ndustry |
|  |  | Thousands | per cent of <br> United <br> Kingdom | £ thousand | per cent of United Kingdom | £ thousand | £ thousand |  |  |
| Standard regions of <br> England |  |  |  |  |  |  |  |  |  |
| North |  | * | * | * | * | * | * | * |  |
| Yorkshire andHumberside |  |  |  |  |  |  |  |  |  |
| East Midlands |  | 2.2 | 6.0 | 15S.ar 9,090 | ${ }_{3} 2$ | 15,199 | 13,283 $150.0 \pm 5$ | 62.5 | Decees |
| East Anglia |  | * | 910,0i | pec,us | sor. 1 ! | * ${ }^{\text {a }}$ cs | * | . | 804.55 |
| South East |  | 1.9 | 5.1 | 3,773 | 1.3 | 36,328 | 32,316 | 80.8 | ABH M M |
| South West |  | 0.3 | 8.8 | 1es. 116 | eger | * | - 8 | * | 2AA, BAS |
| West Midlands | P80 | 1.1 | Cer 3.0 | ce 1,315 | 0.5 | 4,724 | 3,797 | 30.0 | 5reater |
| North West |  | 8.3 | 23.0 | 29.132 | 10.4 | 114,805 | 83,522 | 93.0 |  |
| England |  | * | * | * | * | 446.319 | 374,087 | 88.1 |  |
| Wales |  | 3.1 | 8.7 | 4,716 | 1.7 | 47,621 | 38,052 | 98.8 |  |
| Scotland |  | 3.6 | 10.1 | 43,903 | 15.6 | * | * | * |  |
| Great Britain |  | * | * | * | * | * | * | * |  |
| Northern Ireland |  | * | * | * | * | * | * | * |  |
| Unallocated (e) |  | - | - | - | - | 44,879 | 35,504 | - |  |
| United Kingdom (b) |  | 36.2 | 100.0 | 281,267 | 100.0 | 591.701 | 490,828 |  |  |

(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 establishiments with addresses in two or more regions, plus estimates for unsatisfactory returns, non-response and establishments exempt because of size

TABLE 6
Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 20 or mo
Percentage anal
persons, 1976

Accounting year ended
1976

## -

Percentage of total returns received
per cent
0.0
$\frac{\text { Percentage of total number employed }}{\text { per cent }}$
per
0.0
0.0

May 0.0

June 2.8 0.7

July 0.1 0.0

September 1.3

October
November 1.1
85.6

1977
December 85.6

February
March (b)
21.1
(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) General chemicals industries, minimum list heading 271

Sex
Male
Female

All employees
per cent

84

Source: Department of Employment
(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom in minimum list heading of the employment of minimum list heading 271 as a whole.

Notes
These notes give the main information needed for Interpreting the flgures in the industry Busines
Monitors: more detalied information about the census is given in a separate Business Monitor A100 (Introductory Notes) of the Report on the Census of Production, 1976.
general information
Changes made for 1976
he Census for 1976 is in line with similar inquiries being conducted in other member countrie small number off changes in the scope of the separate headings for:
Sales of goods produced
Recelpts for work done and industrial services rendered Amounts paid for rent of industrial and 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 (b) of the Statistics of Trade Act 1947 tates - "The effect with respect to any report, summary or other under the foregoing provisions of this Act -
In compling any such report, summary or In complifing 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 particulars relating to any individual person or
undertaking except with the previous consent in witing 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 them by any person any representations made to closure 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 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 $1 t$ was refused and where contributors were not approached the figure
has been suppressed, either by combining it with and
other figures, or as in the regional tables, by
omitting the figure altogether. omitting the figure altogether.
Symbols used
The fol lowing symbols are used throughout the PA
serles of Business Monitors:
-. not avallable
\# nll or less than half the final digit shown
*igures cannot be shown owing to the risk of
disclosing information about individual enter$\mathrm{R} \begin{gathered}\text { prises } \\ \text { revised }\end{gathered}$
Rounding of figures
Figures 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
shown

Industrial classificatio King United
The Standard Ind Instria
Classification (SIC) was first Issued in 1948 was subsequently revised in 1958 and 1968. exists to promote uniformity and comparability
the official statistics of the United King the official statistics of the United Kingdom,
The general principles followed are those of the The general principles fol lowed are those of the
international standard industrial classification of all Economic Activitles of the United Nations
statistical Office but the United King Statistical Office but the United Kingdom SIC
reflects the organisation and structure of reflects the organisation and structure
industry and trade as it exists in the Unite Kingdom. The SIC is a classification by activity
and is not a commodity classification. However and is not a commodity classification. However,
an index of all commodity headings for whict
sat an index of all commodity headings for which
sales data are provided in the Quarterly Business
Monitors, is published in Business Monltor PQioso. Statistical units
is the establishment for the purpose of the Censu ls establishment which is defined in the si
as the smallest unit which can provide the information normally required for an economic over, capital formation. Usuaily the principal activities carried on in an establishment fa
within a single heading of the classificat within a single heading of the classificatio
(e.g. steel making or sugar refining). Typlcall
the establithment embraces all the activitie carried on at a single address e.g. a farm, a min or a factory, including those which are anclilar
to the principal activitles. Frequentiy distinc activities characteristic of different industrie are carried on at one address, but normally the
are not classifled separately and the are not classifled separately and the
establishment is classifled according to the activity. If, however, the required range of data can be provided for each activity, each is taken to constitute a separate establishment. Sometime
activities which are conducted as a sing
art business are carried on at a number of addresses. Where this is so, businesses are asked to provic
the fuil range of separate information in respect
of each address; of each address; whether or not the activities are infegrented to such an extent that they constitute a single establishment. In the latter case the
establishment is defined to cover the combined estabilishment is defined to cover the combine
activities at these addresses (termed local activities at these adresses
units).
Separate oble obtained employment and net capital expenditure
unit in order to complle regional tables. Efforts are made by the Business Statistics Office to ensure, by negotiating with respondents, tha the return from an establishment does not cover
local units or addresses in more than one of the local units or addresses in more
countrles of the United Kingdom.
Further
Further information about the statistical unit appeared in an article "The statistical unit business inquiries" in Statistical News No. 13 M
Establishments are asked to exclude from their returns particulars relating to any department no engaged in production e.g. merchanting, transpor
warehousing, 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 accounts are not kept they are asked to Includ accounts are not kept they are asked to includ
detalls of all these activities in their return
Particulars relating Particulars relating to head offices mainl
engaged in the administration of the productio engaged in the administration of the productiy
units within the scope of the census wer included. Where more than one return was made the information in respect of the head office wa apportioned among them.
for certain purposes in the annual censuses

Ioduction (especially the enterprise analyses of
隹 islness
combined. For these purposes an enterprise oup may be defined as a business consisting of oup a single establishment or two or more
lther a
tablinments under common ownership or control. thal shments under common ownership or eontrolse
Inging together establishments into enterprise
netas is also necessary for the purpose of oups is also necessary for the purpose of
sining that there will be no isclosure of the
sivitios of any one enterprise group.
tive

 talange Year Book, company reports, press reports
chang
ind

E REGISTER
ne register permits a questionnaire to be sent
rect to the reporting establishment on which latter can include information relating to all manufacturing (or local) units which it anprises. inquirles provide a major source of information
ne
or keeping the register continuously up-to-date keeping the register continuously up-to-date
id act as a check on its detail and structure. of the establishments on the register making
ofurns to the quarterly inquiries, the industrial assification is derived from an analysis of their ales of commodities and is reviewed annually.
mployment data are entered on the register from pornms to the annual census of production. In
oturn where an establ ishment does not make a return
ases when ases where an establishment does not make a return
ot these Inquir ises the employment data are based on othese Inquir ies the employment data are based on
normation provided by the Department of Employpont from the
stab lismmen
scluded
stabl I shme
noluded In
tlon they thon they supply to the census is supplemented by
he returns that those with 25 or more employe
 bout establishments with fewer than 20 employees
most industries is less securely based, bu nneasing use has been made of data on these
smal I estab| Ishments supplied by the Department of nnall establ Ishments suppliled by the Department of
mployment. One beneflt off using this information 5 a improvement in the estimates of the number of little effect onts and enterprises, but ther loyint, output, net capital expend iture).

Coverage
return was required in the 1976 Census from each stabl ishment with 20 or more employees. Each
stablishment is classified to an industry, as ofined in the SIC, whose principal products for he major part of the establishment's sales.
gions
regions defined in Table 5 take account of the overnment Act changes arising out of the Local Government Act scotland) 1973. These changes came into effect in
oril 1974 in England and Wales and May 1975 in

RMS USED IN THE CENSUS REPORT

## Nrage number emp loyed

4 persons were required to state the number धar of return, whether full-time or part-time
(a)
(b) employees
a employees (operatives)
verages could be calculated from the figures elating to the last week of each calendar month.
stablishments were also required to state the
number of working proprietors where appropriate
and these are included in total employment
fitar figures. Outworkers (i.e. persons employed by
establ ishments who worked in their own homes etc. on materials supplited by the establ ishment) are
excluded. The figures include persons engaged on merchanting or factoring and canteen workers where particulars in respect of these activities could Working proprietors
These include all persons regarded as "selfemployed" 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 number of working hours are excluded. Directors
working in the business but not in recelpt of a definite wage, salary or commission are incluied
under this heading: directors pald by fee only are under this heading: directors pald by fee only are not included

Emp loyees
Administrative, technical and clerical employees 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, Operatives include all other classes of employes,
that is, broadly speaking, all manual wage earners. They incluce operatives employed in in
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 started before the end of the year is included.
ind the tilishments were asked not to deduct from the Establishments were asked not to deduct from the
value of capital expenditure amounts received or expected to be received in grants or allowances and the Government or any statutory body or local
fromority. Establishments with 100 or more
ather authority. Establishments with 100 or more employees were asked to include a total ne
capital expenditure figure for each calendar year
> (a) New building work
> his represents the cost incurred during the year of new buliding and other constructlonal 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; the extension or reconstruction of old buildings, the value of works of a capltal nature carrled out by the
establishment's own staff and the cost of any establishment's own staft and the cost of any
newly constructed bulldings purchased. Flgures
ald commissions, etc
> (b) Land and existing bulldings
The items shown are the capltal cost of freeholds purchased and the capital cost or premlum payable fur leaseholds acquired (excluding the value of
fassets acquired in taking over an existing assets acquired in taking over an existing
business), and the amounts recelvable for freeholds or leaseholds disposed of The value is
that charged to capltal account during the year of that charged to capltal account during the year of
> (c) Plant, machinery and vehicles
The tems shown are the value of plant and machinery and of vehicles acquired, both new and
second-hand, and the amount recived for disposed of during the year. The value of plant (iv)
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 recelved, but Including the cost of
transport and Instaliation. 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 the year
scrapped.
Cost of Industrial services
Cost of industrial services
This includes amounts payable to other firms for This
work done on materlals payable to other firms for ment, payments for repairs and maintenance
(Including those in respect of rented buildings) (Including those in respect of rented buildings)
and amounts pald to other firms for contracts which and amounts pald 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 buldings, hire of plant and machinery, commerclal Insurance premiums, bank charges and amounts paid
for professional services, post office services, transport, advertising etc. Amounts payable on royaltles for the right to use patents, trademarks,
copyrights etc., manufacturing and quarrying rights copyrights etc., manufacturing and quarrying
and technical "know-how" are also included.

Gross output
In the calculation of gross output the value of 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
lor reduced by the fall) during the year in the
value of work in progress and goods on hand for value of work in progress and goods on hand for Net output
Net output, a customary census measure, is
Nealculated by deducting from gross output the cost
cat calculated by deducting from gross output the cost
of purchases (reduced by the rise, or increased by of purchases (reduced by the rise, or increased by
the fall, during the year of stocks of materials otc.) and the cost of industrial services received, and where applicable, dutles etc
Net output per head
he figures of net output per head are derived by
dividing the net output by the average number of persons employed (full and part+rIme) on all operatives, administrative, technical and clerical employees and working proprletors, but excluding

Gross value added at factor cost
Gross value added at factor cost is calculated by educting from net output the cost of non-
industrial services (e.g. rent of buildings, hire of plant and machinery, commercial insurance
 professional services, post office services,
transport and advertising) rates (excluding water transport and advertising), rates (excluding water
rates) and the cost of ilcensing motor vehicles. his estimate of gross value added approaches more losely than census net output to the definition statistics.
Gross value added at factor cost per head he figures of gross value added at factor cost per 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 proprletors, but excluding outworkers.
Purchases
Purchases
components, seml-manufactured goods and works materlals; of replacement parts and consuma toots not charged to capital account; of packagi
materials of all types; of stationery and prin matter; of fuel, electricity and aty print
mater materials to be used by the establishment or; machinery or ostablishments for the production
lisital items for the est lishment's or own use; of materials for use by estab
establiths customers: when working on goods supplied custored by the of tablishment's. return. Transfer
of goods to the establishent of goods to the establishment from another de
ment of the same firm not covered by
establishmentlis ment of the same firm not covered by
establishment's return are included at at corresponding to the estimated selling a
recorded by the other department. recorpded by the other department. Amounts pay
to transport firms or credited to transport department for dellivery of materials
texclat 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 goods for merchanting or factoring have ber
collected separately since 1973 . The values show
exclude VAT. They exclude VAT. They include, in addition to the actual purchase price, the value of packaging
materlal charged to the establishment of returned goods or packaging mater ial returno of returned goods or packaging materlal returned
to suppliers and any trade discounts are excl uded,
Mater Materials purchased duty-paid are included at thelt duty-pald value, less any drawback, rebate,
The cost of transport is included only if included with the purchase price in the firm's Imported goods are included at theln
full delivered cost. If in the firm's accounts the full delivered cost. If in the firm's accounts the
transport from docks or airport is not included the cost of goods purchased, the cost is entered c.i.f. plus duty (if applicable). Leasing, rent
and hire purchase charges are excluded.

Sales of goods produced
Sales for the purposes of the annual censuses
means deliveries on sale of goods made by estab $l$ ishments in the United Kingdom covered by the II shments by outworkers or by other these estabfrom materlals given or by other establ lishments
them and sales of
waste products are included. New building waste products are included. New building worr
and machinery or other capital items produced and machinery or other capital items produced by
establishments for hiring out or leasing are
regarded as sales, the value included regarded as sales, the value included in the the
return being that adopted in the establishmats return being that adopted in the establishments
capital asset accounts. Forward sales and canteen capital asset accounts. Forward sales and canteen
takings are excluded. All sales in the period the inquiry are included irrespective of when the
goods were manufactured. Goods produced in one goods were manufactured. Goods produced in on departments not engaged in production for whic departments not engaged in production for whic
there are separate accounts, or to another
establishment of the same firm not 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 return, are treated as sales by the producin
establishment and valued as far as possible as
they had they had been sold to an independent purchaser Goods transferred to wholesale or retail sesling
organisations, for which separate accounts are organisations, for which separate accounts are
kept are valued on the same basis.
The value shown for sales is the "net selling The value shown for sales is the "net sell
value" defined as the amount (excluding va added tax) charged to customers whether on ex-works or delivered basis, after any
discounts and agents, commissions have deducted. The cost of packing materials allowance for returnable cases is included. value stated is usually inclusive of duty if duty-pald and exclusive of duty if sold in bond
exported.

Work done and industrial services rendered Figures for work done represent the amount char
for work carried out on materlals supplied by for work carried out on materlals supplied
dustrles this heading covers a wide variety of otivities, for example, within the food sector -
itter packed on commission; within the textle ndustr les - making up of garments, fur dressing
textlle fill ind textlle finishing; within printing and pub-
ishing - preparatory work on type-settin Ishing - preparatory work on type-setting, block
aking and binding. Work done is also signiticant the electrical machinery and heavy engineering
iustries, covering erection, installation and ndustries, covering erection, installation and phir heading include exploration work, research and
insel lopment, glass cutting and dressing and planing evel opment, glass cutting and dressing and planing
timber. ndustrial services rendered include repairs and
intenance
installation work, and technical intenance, installation work, and studies for other organisations.
apital goods produced for establishments' own use nis Includes all work of a capltal nature carried
during the year by the establishments own during the year by
aff for their own use.
n-Industrial services rendered
is Includes rents recelved for commercial and dustrial bulidings, amounts charged for hiring
oplant, machinery and other goods and amounts it plant, machinery and other goods and amounts
arged to other organisations for the provision of ansport. It also Includes amounts recelved for
aright to use patents, trademarks, copyrights ight to use patents, trademarks, copyrights
manufacturing and quarrying rights and techi, manutacturing and quarrying rights and tech-
"know-how" and revenue from such staff ccllitios as canteens.
ods merchanted or factored
archanted goods are those (excluding canteen
iles) sold without having been subjected to arclas) sold without having been subjected to any
anutacturing process by the seller nufacturing process by the seller.
tocks and work in progress
alues are given of stocks of goods on hand for
sie and of materials, stores and fuel, at the end sole and of materlals, stores and fuel, at the end
0 the year of return and of the change during the ore including any stocks of goods held ther
orchanting or factoring. Work in progess is
or orthanting or factoring. Work in progress is
otined as materlals which have been partially
coessed by the establlshment but which are rocessed by the establishment but which are not
sually sold or transferred to another estab-
lshment sually sold or transferred to another estab-
lshment without further processing. The values
nclude the cost of mater lals consumed and labour nclude the cost of mater lals consumed and labour
sed, together with a margin of overhead costs and ssd, together with a margin of overhead costs and
roftits. Progress payments made to sub-
ontractors are ontractors are excluded and progress payments
ecelved from other organisatlons are not
ages and salarles
hese are amounts paid during the year to
peratives and to administrative, technical and peratives and to administrative, technical and
llorical employees. Payments to working lerlcal employees. $\begin{aligned} & \text { Payments to working } \\ & \text { ropr letors, whether called salarlies or not, are } \\ & \text { xcluded. The values shown include all overtime }\end{aligned}$ roprietors, whether called salarles or not, are
xcluded. The values shown Include al I overtime
ayments, bonuses and commissions, whether paid payments, bonuses and commissions, whether paid
ogularly or not, and no deduction is made for gularly or not, and no deduction is made for
ncome tax, Insurances, contributory penslons etc.
he value of redundancy payments less any amounts he value of redundancy payments less any amounts imbursed from Government sources is included. he value of any payment
xpenses etc. is excluded.
mmneration pald to outworkers
he remuneration paid to outworkers (i.e. persons mployed by the establishment who do the ir work In
heir own homes) Is generally on a asis. Only amounts paid to outworkers whose names ppear on the establishment's payroll are included. mounts pa
excluded.
Toloyers' Insurance and welfare contributions
hils Item
hational nsurance and welfare contributions
Includes employers' contr Includes employers' contributions to
nsurance and graduated penslons (and/or pational
Barnings Insurance and graduated pensions (and/or
related basic contributions under the

Soclal Security Act, 1973) as well as commercial insurance premiums to provide pensions, superannuation or other retirement benefits, sickness or death benefits for employees or former employees or their dependants. Contributions to
the running costs of canteens, social centres the running costs of canteens, social contres,
children's and hollday homes, etc. for employees, children's and hol liday homes, etc. for employees,
former employees and their dependants are also Included
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[^1]:    (a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size. Satisfactory returns accounted for 98 per cent of employment within the industry.
    Included with Sales of goods produced.
    Included with capital goods produced for establishments own use.
    Details of manufacturers' sales of principal products are published regularly in Business Monitor PQ271.
    Included with purchases of materials for use in production and packaging and fuel.
    (f) Average number employed, including full and part-time employees (see table 7 ) and working proprietors.
    (g) 1973 figures include hire of vehicles.
    (h) For $1973-1975$ rents of industrial and commercial buildings were not recorded separately. For 1976 the amount payable wa
    (j) 1974-1976 figures include the cost of hiring goods vehicles.

