

## Business Monitor

## Report on the Census of Production 1970

## C153 Water supply



## Business Monitor

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Report on the Census of Production 1970

C153 Water supply

Presented by the Department of Trade and Industry
to Parliament in pursuance of the Statistics of Trade Act 1947
( 10 \& 11 Geo. 6 Cha. $39 \sec 7$ )

|  | Introductory Notes |
| :---: | :---: |
|  | Coal mining ${ }^{\text {a }}$ ( |
|  | Chalk, clay, sand and gravel extraction |
|  | m and natural |
|  | Salt and miscellaneous non-metalliferous |
|  | Metalliferous mining and quarrying |
| C6 | Metalliferous mining and quarrying |
|  | Bread and flour confectionery |
| C9 | Biscuits |
| ${ }_{C 1}^{C 10}$ | Bacon curing, meat and fish products |
|  | Milk and milk products |
| ${ }_{C 13}$ | Sugar |
|  | Cocoa, chocolate and sugar confect |
| ${ }_{C 14}$ | Fruit and vegetable pro |
| C15 | Animal and poultry foods |
| C15 | Vegetable and animal oils |
| C17 | Margarine |
|  | Starch and miscellaneous foods |
| 19 | Brewing and malting |
| C20 | Soft drinks |
|  | Spirit distilling and compounding |
| C22 | British wines, cider and perry |
|  | Tobacco |
|  | Coke ovens and manufactured fuel |
| 25 | Mineral oil refining |
| 26 | Lubricating oils and greases |
| 27 | General chemicals (inorgania |
| C28 | General chemicals (organic) |
| C29 | General chemicals (other than inorganic and organic) |
| C30 | Pharmaceutical chemicals and preparation |
|  | Toilet preparations |
|  | Paint |
|  | Soap and detergents |
| C34 | Synthetic resins and plastics materials |
|  | Dyestuffis and pigments |
| C3 | Fertilizers |
| C36 | Polishes |
| C38 | Formulated adhesives, gelatine, e |
|  | Explosives, fireworks and matches |
| C3 | Formulated pesticides and disinfectants |
| C4 | Printing ink |
| C4 | Surgical bandages, etc. |
| C4 | Photographic chemical materials |
| C44 | Iron and steel (general) |
| ${ }_{C}$ | Steel tubes |
| ${ }_{4} 4$ | Iron castings, etc. |
|  | Aluminium and aluminium |
| C48 | Miscellineous base metals |
|  |  |
|  | gricultural machinery (except tractors) |
| ${ }^{\text {C5 }}$ | umps, valves and |
| C52 |  |
| C53 | Industrial engines |
| C | extile machinery and accessories |
| C | construction and earth moving equiprMechanical handling equipment |
| C56 |  |
| C57 | Office machine |
| 58 |  |
| 5 | Printing, bookbinding and paper |
|  |  |
| C60 | Refrigerating machinery (except d |
| C61 | Space heating, ventilating and a |
|  | conditioning equipment |
|  | Food and drink processing machiner |
| C63 | scellaneous (non-electrical) machinery |
| C64 | trial (including process) plant and |
|  | steelwork |
| C65 | Ordnance and small arms |
| C66 | General mechanical engineering |
| C67 | Photographic and document copy |
| C68 | Watches and clocks |
|  | Surgical instruments and applia |
| C70 | Scientific and industrial instrume |
| C71 | Electrical machinery |
| C72 | Insulated wires and cable |
| C73 | Telegraph and telephone apparatus and |
|  |  |
| C75 | Broadcast receiving and sound |
|  |  |
| C76 | Electronic computers |
| C77 | Radio, radar and electronic capital goods |



This report on the Water Supply Industry relates to the establishments of public authorities and companies engaged wholly or mainly in purifying and distributing water and supplying hydraul ic power. Construction
work carried out by employees of water undertakings is included. Private water works maintained by establish work carried out by employees of water undertakings is included. Private water works maintained by establish
ments primarily for their own use are excluded.

The industry corresponds to minimum list heading 603 in the Standard Industrial Classification (revised 1968) which was used for the first time as a basis of classification in the 1968 census, when it was reported as
part 154. The definition of the industry is the same for the 1963 , 1968 and 1970 censuses.

## Section I - Estimates for all United Kingdom undertakings in the industry

$$
\text { Net output, 1963, } 1968 \text { and } 1970 \text { - Undertakings classified to the industry }
$$

2 Capital expenditure and stocks, 1963, 1968 and 1970 - Undertakings classified to the industry

3 Analysis undertakings by size, 1970 - Undertakings class if ied to the industry
4 Percentage analysis of employees by age and sex, 1970 - Undertakings classified to the industry
$5 \quad \begin{aligned} & \text { Regional distribut ion of employment, net capital expenditure and net output, } 1970 \\ & \text { Undertakings classified to the industry }\end{aligned}$ Undertakings classified to the industry
Section II - Analysis of returns received
6 Analysis of net output of returns received from undertakings employ ing 25 or more persons, 1963, 1968 and 1970

Percentage analysis of twelve-month periods covered by returns from undertakings employing 25 or more persons, 1970
table 1
Net output, 1963, 1968 and 1970
All United Kingdom undertakings classified to the industry (a)
 less than 25 persons.
(b) Amounts charged for hiring out plant, machinery or other goods, for providing transport, or for any technical or other services rendered.
(c) Comprises value of water supplied, work done for which a direct charge was made and work of new construction
(d) Inwards transport on materials and fuel purchased and transport services in connection with output.
(e) Average number of persons employed during the year.

Capital expenditure, 1963, 1968 and 1970
All United Kingdom undertakings classified to the industry (a)

|  | 1963 | 1968 | 1970(b) |
| :---: | :---: | :---: | :---: |
| Capital expenditure | £'000 | £'000 | £'000 |
| New building work (c) | 25,020 | 57,099 | 77,234 |
| Land and existing buildings |  |  |  |
| Acquisitions | 1,735 | 1,223 | 1,136 |
| Disposals | 956 | 587 | 1,830 |
| Plant and machinery (c) |  |  |  |
| Acquisitions | 20,596 | 8,462 | 9,972 |
| Disposals | 319 | 79 | 72 |
| Vehicles |  |  |  |
| Acquisitions | 1,035 | 1,324 | 1,764 |
| Disposals | 176 | 178 | 212 |
| Total net capital expenditure (d) | 46,935 | 67, 264 | 87,992 |

(a) Including estimates for undertakings not making satisfactory returns and for undertakings employing less than 25 persons.
(b) Capital expenditure in respect of undertakings where production had not commenced before the end of the year, is included for 1970.
(c) For 1963 , capital expenditure on new construction work on trunk, distributive and service mains was included with plant and machinery instead of with new building work as in 1968 and 1970.
(d) Acquisitions less disposals.

## TABLE 3

Analysis of undertakings by size, 1970
All United Kingdom undertakings classified to the industry (a)

| Size <br> group <br> (b) | Undertakings | Total employment <br> (b) | Employees |  | Wages and salaries |  | Wages and salaries per head |  | Gross output <br> (d) | Net output | Net output per head | Capital expenditure (net) (e) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Operatives | Others <br> (c) | Operatives | 0 thers <br> (c) | Operatives | Others (c) |  |  |  |  |
|  | Number | Number | Number | Number | $£^{\prime} 000$ | £'000 | £ | £ | £'000 | £'000 | £ | £'000 |
| 1-10 | 80 | 358 |  |  |  |  |  |  |  |  |  |  |
| 11-24 | 28 | 490 | 2,999 | 1,810 | 3,565 | 2,924 | 1,189 | 1,616 | 26,177 | 20,559 | 4,275 | 11,116 |
| 25-49 | 12 | 522 |  |  |  |  |  |  |  |  |  |  |
| 50-99 | 46 | 3,439 | J |  |  |  |  |  |  |  |  |  |
| 100-199 | 66 | 9,211 | 6,115 | 3,096 | 7,191 | 4,861 | 1,176 | 1,570 | 49,532 | 39,131 | 4,248 | 19,008 |
| 200-299 | 19 | 4,618 | 3,204 | 1,414 | 3,935 | 2,310 | 1,228 | 1,633 | 27, 286 | 21,487 | 4,653 | 10,251 |
| 300-399 | 18 | 6,490 | 4,361 | 2,129 | 5,446 | 3,251 | 1,249 | 1,527 | 31,919 | 25,924 | 3,995 | 12,652 |
| 400-499 | 13 | 5,251 | 3,443 | 1,808 | 4,124 | 2,770 | 1,198 | 1,531 | 26,950 | 22,762 | 4,335 | 13,691 |
| 500-999 | 7 | 5,614 | 3,816 | 1,798 | 4,655 | 2,736 | 1,220 | 1,523 | 24,803 | 20,015 | 3,565 | 7,929 |
| 1,000 and over | 4 | 8,815 | 6,438 | 2,377 | 9,055 | 4,375 | 1,406 | 1,841 | 42,549 | 35,994 | 4,083 | 13,345 |
| Total | 293 | 44,808 | 30,376 | 14,432 | 37,971 | 23,227 | 1,250 | 1,609 | 229, 217 | 185,872 | 4,149 | 87,992 |

(a) Including estimates for undertakings not making satisfactory returns and Including estimates for undertakings not making
(b) Average number employed during the year by the undertaking.
(c) Administrative, technical and clerical employees.
(d) Comprises value of water supplied, work done for which a direct charge was made and work of new construction.
(e) Acquisitions less disposals

Percentage analysis of employees, by age and sex, 1970 (a)
All United Kingdom undertakings classified to the industry

| Ages | Males | Females | All employees |  |
| :--- | :---: | :---: | :---: | :---: |
| Under 18 | per cent | per cent | per cent |  |
|  | 1 | - | 1 |  |
|  | 90 | 9 | 99 |  |
|  |  |  |  |  |

(a) The percentages relate to the numbers employed at mid-June, 1970.
table 5
Regional distribution of employment, net capital expenditure and net output, 1970 All United Kingdom undertakings classif ied to the industry

| Area | Average number employed |  | Net capital expenditure (a) |  | Net output and employment in the region of undertakings with more than 80 per cent of their employment in the region (b) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Estimated net <br> output | Average number employed as a percentage of total average number employed in the industry in the region | Net output as percentage of total of the industry in the United Kingdom |
|  | Thousands | $\begin{gathered} \text { per cent } \\ \text { of } \\ \text { United } \\ \text { Kingdom } \end{gathered}$ |  |  | $£^{\prime} 000$ | $\begin{gathered} \text { per cent } \\ \text { of } \\ \text { United } \\ \text { Kingdom } \end{gathered}$ | $£^{\prime} 000$ |  |  |
| North | 2.6 | 5.7 | 4,787 | 5.4 | 10,825 | 96.6 | 5.8 |
| Yorkshire and Humberside | 4.5 | 10.1 | 5,596 | 6.4 | 18,040 | 98.9 | 9.7 |
| East Midlands | 2.4 | 5.4 | 5,632 | 6.4 | 11,668 | 98.2 | 6.3 |
| East Anglia | 0.9 | 2.1 | 1,311 | 1.5 | 3,498 | 92.8 | 1.9 |
| South East | 13.5 | 30.1 | 18,346 | 20.9 | 53,656 | 94.6 | 28.9 |
| South Mest | 3.4 | 7.6 | 6,731 | 7.7 | 12,751 | 96.8 | 6.9 |
| West Midl ands | 3.9 | 8.7 | 6,793 | 7.7 | 16,136 | 98.9 | 8.7 |
| North West | 5.9 | 13.2 | 13,032 | 14.8 | 25,743 | 97.4 | 13.8 |
| England | 37.1 | 82.9 | 62,228 | 70.8 | 152,318 | 96.5 | 81.9 |
| Wales | * | * | * | * | * | * | * |
| Scotland | 3.7 | 8.4 | 9,829 | 11.2 | 14,946 | 99.8 | 8.0 |
| Great Britain | * | * | * | * | * | * | * |
| Northern Ireland | * | * | * | * | * | * | * |
| Unallocated (c) | - |  | - |  | 11,966 | - | 6.4 |
| United Kingdom | 44.8 | 100.0 | 87,992 | 100.0 | 185,872 | , | 100.0 |

New building work plus acquisitions less disposals of land and existing buichery and machinery and vehicles: including capital expenditure at undertakings not yet in production.
(b) Where a census return covered addresses in two or more regions an estimate was made of the net outiout
attributable to the region only where more than 80 per cent of the undertaking's employees were located
in the region. The estimate was made by assuming that net output at each address covered by a return was in the region. The estimate was made by assuming that net output at each address covered by a retu
proportionate to employment at the address. The undertaking's residual net output was included in unallocated net output.
(c) Includes estimates of net output for undertakings not making satisfactory returns and undertakings Includes estimates of net output for undertakings not making satisfactory returns and undertakings
employing less than 25 employees, and unallocated net output of undertakings covering addresses in tw employing less
or more regions

Analysis of net output of returns received from United Kingdom undertakings employing 25 or more
persons, 1963,1968 and 1970


Percentage analysis of twelve-month periods covered by returns received from United Kingdom undertakings employing 25 or more persons, 1970

| Accounting year ended | Percentage of total returns <br> rece ived | Percentage of total <br> numbers employed |  |
| :--- | :--- | :---: | :---: |
| 1970 | April (a) | per cent | per cent |
|  | May | 0.5 | 0.2 |
|  | June | 7.5 | 8.9 |
|  | July | 0.0 | 0.0 |
|  | August | 0.0 | 0.0 |
|  | September | 0.0 | 0.0 |
|  | October | 1.2 | 1.4 |
|  | November | 0.5 | 1.1 |
|  | December | 0.0 | 0.0 |
| 1971 | January | 14.5 | 13.3 |
|  | February | 1.2 | 0.5 |
|  | March (b) | 0.0 | 0.0 |

(a) From 6th April
(b) Including returns made for twelve-month period ending 1st to 5th April 1971
(a) Amounts charged for hiring out plant, machinery or other goods, for providing transport, or for any technical or other services rendered.
(b) Comprises value of water supplied, work done for which a direct charge was made and work of new construction.
(c) Inwards transport on materials and fuel purchased and transport services in connection with output.
(d) Average number of persons employed during the year.

These notes give the main information needed for
interpreting the figures in the industry reports (more detailed informat ion about the census is given in a separate booklet - "Introductory Notes", Part C
of the Report on the Census of Production for 1970).
general information
Changes compared with 1968
The questions asked in the 1970 census for this industr were simiar to those in the 1968 census with certain
exceptions. In particular the
for details of
(i) purchases by commodities
(ii) payments of rates
(iii) payments for repair
(iii) payments for repairs and maintenance

The amounts payable to other organisations for trans
port of goods however, did include the cost of the
port of goods however, did include the cost of the
Post office parcel services.
Other changes concern the treatment of firms employ ing less than 25 persons and the rules used for classify-
ing establ ishments to industry. Any such changes ar explained in the following paragraphs, or in the int roductions
to the tables.
Industrial classification
Establ ishments were classified to industries on the
basis of major activity in conformity with the th
edition of the Standard Industrial Classification
(Revised 1968). Normally an establ ishment was
classified to an industry if its sales of the principal
products of that industry accounted for a greate products of that industry accounted for a greater
proportion of its total sales than in its sales of the
principal products of any other industry. principal products of any other industry. Class-
ification of an establishment in this census was based on the establishment's return to the Census of
Product ion, 1968. Production, 1968
Establishments added to the register subsequent to the 1968 census were classif ied on the basis of the
description of the business given by the respondent.

Coverage
Detailed census returns were generally sought only from
establ ishments employing on average 25 or more persons establ ishments employing on average 25 or more persons,
but in industries where firms employing less than 25 persons account for a relat ively high proportion of total employment and output the exemption 1 imit wa lowered to 11. Census returns were also sent to
establishments whose employment was not known to the Business Statistics Office at the time of despatch; if
their employment was below the exemption limit for the the ir employment was below the exemption 1 imit for the ir
industry establ ishments were asked to supply figures industry establishments were asked to supply figures
only of total employment and total sales.
terms used in the census report
Undertaking
The term undertaking is used in this report to mean one or more locations in the same country (i.e. England, supply being under Northern Treland) engaged in

Average number employed
Undertakings were required to state the number of persons
on the payroll (i.e. whose national insurance cards wer
held by them) on the average during the year of return,
 figures were required for (a) administrative, techni
and clerical employees and (b) all other employees (operatives). Averages could be calculated from figures
he figures include canteen workers where particular in mer excluded

Employees
dministrative, technical and clerical employees
nclude managing and other directors in recer
def inite wage, salary or commission, managers,
superintendents and works foremen; research, exper 1
nental development, technical and design employees
(other than operatives); draughtsmen and tracers;
(other than operatives), draughtsmen and tracers
editorial staff, staff reporters, canvassers, co
pet ition and advertis ing staff;, travellers,
office (including works office) employees.
Peratives include all other classes of employees,
That is, broadly speaking, all manual wage earners.
They include those employed in and about the factory They include those employed in and about the fac
or works; operat ives employed in power houses, transport work (including roundsmen) stores, ware houses, shops and canteens; inspectors, viewers and
similar workers; maintenance workers, and cleaners. Onerator engaged in outside work of erecting,
fitting etc. are also included.
Capital expenditure
(a) New building work

This represents the cost incurred dur ing the year of off ice buildings, canteens and the 1 ike used in connection with the business covered by the return but not dwelling houses for employees). The value
is that charged to capital account during the year of return; it includes expenditure on new buildings or on the extension or reconstruction of old
buildings, the value of works of a capital nature buildings, the value of works of a capital nature
carried out by the undertaking's own staff and the cos carried out by the undertaking's own staff and the cost
of any newly constructed buildings purchased. Figures
shown include any legal charges, stamp duties, agents
b) Land and existing buildings

The items shown are the capital cost of freeholds purchased and the capital cost of premum payable for acquired in taking over an existing business) and the amounts rece ivable for any freeholds or leaseholds disposed of. The value is that charged to capital (c) Plant a horinery ad vehicles
$\qquad$ The items shown are the value of plant and machinery
and of vehicles acquired, both new and second-hand, and
the amount received for items disposed of dur ing year. he amount received for items disposed of during year.
The value of plant and machinery acquired includes plant, etc., which firms produced for their own use in con-
nection with the business covered by the return. The
value of plant, etc., acquired is the expend iture
charged to capital account dur ing the year of retu
less any discounts received but including the less any discounts received, but including the cost of
transport and installation. No deduction is made for
depreciation depreciat ion, amortization or obsolescence. The proceeds of items disposed of during the year exclude
amounts written off for items scrapped.
Gross output
Gross output measures the total value of production by undertakings during the year and compr ises value of wate
supplied, work done for which a direct charge was made and work of new construction a direct charge was made vices rendered to other organisations are included.

Net output
Net output represents the value added to materials by
the process of production. It is calculated as follows Gross output
less: Materials used
less: Payments for transport
$=$ Net output
Net output per person employed
The figures of net output per person employed are
derived by dividing the net output by the average number of persons employed (full $t$ time and part time) on all activities covered by the returns,
including operatives, administrative, technical and clerical employees.
Purchased materials used
Purchased materials used include the cost of materials
and components bought for use in product ion; of fuel and components bought for use in production; of fuel and including the cost of returnable cases and containers when first purchased; of workshop materials office materials and materials for repairs to an
undertaking's own buildings, plants and vehicles whe undertaking's own buildings, plants and vehicles when
carried out by their own work people included in the carried out by the ir own work people included in the
returns; of consumable toolss and of parts for machinery
purchased during the year as replacements. Canteen purchased during the year as replacements. Canteen

The cost of transport is included only if included i
the cost of materials as invoiced; amounts paid to the cost of materials as invoiced; amounts paid to
transport organisations, including an undertaking' transport organisations, including an undertaking's
own separate transport organisations for delivery o materials and fuel are therefore, excluded. Materials purchased overseas are included at their c.i.f. cost
plus any duty payable if the cost of transport from plus any duty payable if the cost of transport from
the docks was not included in the invoiced price, but at the ir full delivery cost if invoiced "carriage paid
home". Materials and fuel transferred from another home". Materials and fuel transferred from anorturn are
are included at the estimated selling value recorded by
the other department.

Nater supplied and work done
The value shown is in respect of water supplied in the
year of return. The value of the water is the net year of return. The value of the water is the net
amount charged, less discounts, whether the charge was amount charged, less discounts, whether the charge was
levied by rate, or as rent, or in any other way. Meter levied by rate, or as rent, or in any other way. Meter
rents are included but contributions from the local rates
to make to make up any deficiency in the income of water-works in
England and Wales, and contributions from county rates England and Wales, and co.
in Scotland are excluded.

This represents the amounts charged for hiring out plant, machinery and other goods, providing tran port, or for any technical or other services
rendered to other organisations. It includes amounts credited for similar services rendered to covered by the return.

Standard Industrial Classification
Industry classification is based on the Standard

Industrial Classification (Revised 1968). It is
publ ished by HM Stationery Office together with a separate index in the form of an alphabetical list separate index
of industries.
Transport payments
These represent the total amount paid or credited
during the year for both outwardis transonort of finished goods sold and inwards transport of materials and fuel purchased. They include pay transport organisation of the same undertaking not covered by the return, but exclude the value of by the return. The items included are payments for hired cartage and for inwards and outwards carriage by all forms of inland transport i.e. rail
ways, road haulage, canals, coastwise shipping, air etc.
These are amounts paid during the year topertive
These are amounts paid during the year to operat
and to administrative, technical and clerical emp oyees. The values shown include all overtime pay
ments, bonuses and commissions, whether paid regularly ments, bonuses and comissions, whether paid renularly
or not, and no deduction is made for income tax, insur or not, and no deduction is made for income tax, insur
ances, contributory pensions, etce. TTe value of any
payments in kind, travelling expenses, lodg ing all owances, etc. and employers contribut ions to
insurances and pension schemes is excluded.
Work given out
For work done the value shown is the amount charged for oturn. Interest, sinking fund and other loan charges; the cost of work done in connection with the filtration and treatment of water; waste protection and prevention;
meter reading and inspection are excluded. In the case
nef of construction work done but not completed in the yeare, and vice versa, the value included is in respect of the
part of the work carried out during the year of return. symbols used
he following symbols are used throughout the

$$
\begin{aligned}
& \because \text { not available } \\
& \text { nil or negligible (less than half the last } \\
& \text { siignificant figure) }
\end{aligned}
$$

figures cannot be shown owing to risk of
disclosing information about individual disclosing inf
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therefore, be the sums of the constituent items and the totals
shown.

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