

Article

# Construction Statistics: No 17, 2016 Edition

A wide range of statistics on the construction industry in Great Britain: statistical trends, international comparisons and leading initiatives that may influence the future.

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Release date:  
22 August 2016

Next release:  
To be announced

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# 1. Introduction

The construction statistics annual publications bring together a wide range of statistics currently available on the construction industry from a variety of sources. This edition updates the figures for Tables 2.4, 2.8, 2.9, 3.1, 3.3, 3.4, 3.5 that were supplied in [Construction Statistics Annual 2015](#). All other tables that were previously contained in the annual construction statistics publication are no longer collated and published by the Office for National Statistics (ONS). Where these data tables are no longer published, links have been provided for you to obtain the relevant data. This is the eighth web-based only edition and the tables produced by us are available in [an Excel dataset](#), allowing independent analyses of the published information.

## 2. Acknowledgements

Our thanks go to the external contributors and in particular to our colleagues in Business, Energy and Industrial Strategy (BEIS), the Scottish government, Welsh government and the Northern Ireland Executive.

Our thanks also go to the members of the [Consultative Committee on Construction Industry Statistics](#) (the forum for joint consultation on construction statistics by the industry, BEIS and ONS).

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## 3. Output

This release contains 3 output tables:

- Table 2.4 shows the value of construction output by type of work
- Table 2.8 shows the value of work done by trade of firm and type of work
- Table 2.9 shows the value of work done by size of firm and type of work

The remaining output tables that were published up to the 2012 edition can be found in the [monthly output in the construction industry statistical bulletin](#) and associated tables.

## 4. Structure of the industry

Industry structure estimates are broken down in 4 Tables:

- Table 3.1 shows the number of private contractor firms

- Table 3.3 shows the total employment of private contractors
- Table 3.4 shows the number of firms by size and trade of firm
- Table 3.5 shows the number of firms by size and region of registration

The data previously published in Table 3.2 regarding information on the insolvencies and bankruptcies of construction firms are now available from the [Insolvency Service](#).

## 5. Output price indices (OPIs) and cost indices

Responsibility for output price indices was transferred to the Office for National Statistics (ONS) on 1 April 2015. The quarterly output price indices (OPIs) are [experimental statistics](#), produced using an interim solution while we continue to develop appropriate methodologies for the long-term. Data on output price indices are now available in the publication [Construction Output Price Indices – Interim Solution](#) publication.

## 6. Investment

Data on investment can be found in Tables 9.1, 9.2 and 9.4 of the [UK National Accounts – The Blue Book](#) publication.

## 7. Government departments' construction plan

Information relating to [UK Private Finance Initiative \(PFI\)](#) projects can be obtained on the GOV.UK website.

## 8. Local authority expenditure

The information for [English local authority expenditure](#) can be found on the GOV.UK website.

## 9. National Lottery funded projects

Information relating to National Lottery projects can be accessed on the [National Lottery](#) website.

## 10. Planning applications and decisions

Tables 10.1 to 10.3, planning applications statistics which were published up to the 2012 edition can now be accessed on the [GOV.UK](#) website.

Tables 10.4 to 10.5, live tables on planning application statistics which were published up to the 2012 edition can now be accessed on the [GOV.UK](#) website.

## 11. Trends in employment and the professions

Seasonally adjusted data for manpower, previously published as Table 11.1, can now be found in the [JOBS02 spreadsheet](#) of the [Labour Market Statistics](#) publication.

The data previously published as Tables 11.2 to 11.4 can be found in the [Annual Survey of Hours and Earnings](#) publication.

Data on employment in the construction industry by sex, previously published as Table 11.5, can be found in the [EMP14 spreadsheet](#) of the [Labour Market Statistics](#) publication.

Data previously published as Tables 11.10 and 11.11 are produced every 5 years by the [Construction Industry Council](#).

[Trainee numbers](#), previously published as Table 11.12, are produced by the Construction Industry Training Board and can be accessed on their website.

The [number and turnover of construction service businesses](#), previously published as Table 11.18, can now be found in Section F of the Annual Business Survey results.

Data previously published as Table 11.19 is updated 4 times a year and can be found in the LABD03 table of the [Labour Market Statistics](#) publication.

The [Health and Safety Executive](#) contains:

- data previously published as table 11.20, showing the injuries in Great Britain by industry and severity of injury, are available in the [RIDIND table](#)
- data previously published as table 11.21, the number of injuries in Great Britain by industry and severity of injury, are available in the [RIDKIND1 table](#)
- data previously published as table 11.22, the rate of injury in Great Britain by industry and severity of injury, are available in the [HISTRATE table](#)
- data previously published as table 11.23, the number of proceedings instituted by Health and Safety Executive and, in Scotland, the Crown Office and Prosecutor Fiscal Service under specific regulations and acts by result at an offence level, are available in [table EF5](#)

## 12. Northern Ireland, Wales and Scotland

Table 12.1 and Table 12.2 previously contained data on [the value of construction output and the index of construction output](#) in Northern Ireland. Both are available on the Department for the Economy website.

Information relating to housing statistics in Northern Ireland, previously published in Tables 12.3 and 12.4, can be found in the [Housing Statistics](#) website section of the Department for Communities.

Tables 12.5 previously contained the value of new orders obtained by contractors for Wales. This is updated on a quarterly basis and can be found in Table 6 of the [Output in the Construction Industry and New Orders](#) publication.

Table 12.6 previously contained the value of output obtained by contractors for Wales. This is updated on a quarterly basis and can be found in Table 6 of the [Output in the Construction Industry and New Orders](#) publication.

The [Welsh government website](#) contains:

- data previously published in Table 12.7, the Index of Construction for Wales, which can now be found in the latest release of the [Index of Production and Construction](#)
- data previously published in Table 12.8, relating to planning applications in Wales, is published on a quarterly basis in the [Development Management Quarterly Survey](#)
- data previously published in Table 12.9, relating to [mineral planning applications](#) in Wales
- data previously published in Table 12.10, providing the analysis of [capital account expenditure](#) for Wales
- data previously published in Table 12.11, showing [household projections](#) for Wales

The value of new orders obtained by contractors for Scotland, previously published in Table 12.12 and the value of output obtained by contractors for Scotland, previously published in Table 12.13, are updated on a quarterly basis and both can be found in Table 6 of the [Output in the Construction Industry and New Orders](#) publication.

## 13. Building materials

Tables 13.1 to 13.6 contained information relating to [building materials](#) which are produced by the Business, Energy and Industrial Strategy and are available on the GOV.UK website.

## 14. International comparisons

Tables 14.1 to 14.8 contained information relating to [international comparisons](#) and are produced by Gardiner and Theobald.

## 15. Key Performance Indicators and benchmarking

The construction industry Key Performance Indicators (KPIs) are produced in partnership with the Construction Industry Training Board (CITB) and endorsed by Business, Energy and Industrial Strategy (BEIS) and Constructing Excellence using data from the Office for National Statistics (ONS), Building Cost Information Service, Health and Safety Executive, Dun and Bradstreet and other third-party financial analysts.

The annual [construction KPIs](#) relating to performance in 2014 are now available online from Glenigan.

Also, the [KPIzone](#) website gives access to all KPIs for economic, social and environmental performance as well as those for the construction sectors, allowing you to choose relevant KPIs and store and retrieve data to help benchmark effectively. Methods of measurement, data collection forms, trend charts, examples and links to improve performance are included for each KPI as well as calculators to obtain benchmark scores.

The KPI builder has the facility of being able to store performance information in a secure area called "My KPIs", analyse and report results and then produce a tailored document called "My KPIs Handbook". Other areas of the website include secondary and additional performance indicators, international KPIs and industry progress tables.

The website also includes a large amount of supporting information including case studies, KPI best practice guide and masterclass information. The construction industry KPIs are intended for use by individual firms wishing to measure and compare their performance.

## 16. Quality and methodology

The [Output in the construction industry](#) and [New orders in the construction industry](#) Quality and Methodology Information documents contain important information on:

- the strengths and limitations of the data
- the quality of the output: including the accuracy of the data and how it compares with related data
- uses and users
- how the output was created

## 17. Background notes

1. Details of the [policy governing the release of new data](#) are available on the UK Statistics Authority website.

## 18. Appendices

### Appendix 1

[List of Government Regions](#)

### Appendix 2

#### Definition of the construction industry

The industry is defined in accordance with Divisions 41 to 43 of the UK Standard Industrial Classification of Economic Activities 2007 - SIC(2007). The concept of allied construction activities (also known as allied trades) was introduced in SIC (2007), replacing the division structure of the previous version SIC (2003), which was based largely on the stage of the construction process. This industry definition includes general construction and allied construction activities for buildings and civil engineering works. It includes new work, repair, additions and alterations, the erection of prefabricated buildings or structures on the site and also construction of a temporary nature.

General construction is the construction of entire dwellings, office buildings, stores and other public and utility buildings, farm buildings etc., or the construction of civil engineering works such as motorways, streets, bridges, tunnels, railways, airfields, harbours and other water projects, irrigation systems, sewerage systems, industrial facilities, pipelines and electric lines, sports facilities etc. This work can be carried out on own account or on a fee or contract basis. Portions of the work and sometimes even the whole practical work can be subcontracted out. A unit that carries the overall responsibility for a construction project is classified here. The repair of buildings and civil engineering works is also included.

The industry definition includes the complete construction of buildings (division 41), the complete construction of civil engineering works (division 42), as well as allied construction activities; if carried out only as a part of the construction process (division 43). The renting of construction equipment with operator is classified with the specific construction activity carried out with this equipment.

## **Section 41 - Construction of buildings**

This division includes general construction of buildings of all kinds. It includes new work, repair, additions and alterations, the erection of pre-fabricated buildings or structures on the site and also construction of a temporary nature. Included is the construction of entire dwellings, office buildings, stores and other public and utility buildings, farm buildings, etc.

The new orders information (obtained using Barbour ABI current price data) and the Construction Output Survey do not include class 41.1 (development of building projects) as the class is not directly included in the construction process. This class includes: development of building projects for residential and non-residential buildings by bringing together financial, technical and physical means to realise the building projects for later sale.

## **Section 42 - Civil engineering**

This division includes general construction for civil engineering works. It includes new work, repair, additions and alterations, the erection of pre-fabricated structures on the site and also construction of temporary nature. Included is the construction of heavy constructions, such as motorways, streets, bridges, tunnels, railways, airfields, harbours and other water projects, irrigation systems, sewerage systems, industrial facilities, pipelines and electric lines, outdoor sports facilities, etc. This work can be carried out on own account or on a fee or contract basis. Portions of the work and sometimes even the whole practical work can be subcontracted out.

## **Section 43 - Allied construction activities**

Allied construction activities (allied trades), that is, the construction, or preparation for construction, of parts of buildings and civil engineering works. These activities are usually specialised in one aspect common to different structures, requiring specialised skills or equipment, such as pile-driving, foundation work, carcass work, concrete work, brick laying, stone setting, scaffolding, roof covering, etc. The erection of steel structures is included provided if the parts are not produced by the same unit. Allied construction activities are mostly carried out under subcontract, but especially in repair construction it is done directly for the owner of the property.

Building finishing and building completion activities are also included. These activities are usually performed at the site of the construction, although parts of the job may be carried out in a special shop. It includes the installation of all kinds of utilities that make the construction function as it should, such as plumbing, installation of heating and air-conditioning systems, antennas, alarm systems and other electrical work, sprinkler systems, elevators and escalators, etc. Also included are insulation work (water, heat, sound), sheet metal work, commercial refrigerating work, the installation of illumination and signalling systems for roads, railways, airports, harbours, etc.

Repair of the above mentioned installations is also included. Building completion activities encompass activities that contribute to the completion or finishing of a construction such as glazing, plastering, painting, floor and wall tiling or covering with other materials like parquet, carpets, wallpaper, etc., floor sanding, finish carpentry, acoustical work, cleaning of the exterior, etc. Repairs to the above mentioned completion or finishing work are also included.

The renting of equipment with operator is classified with the associated construction activity.

## **Direct labour organisations**

Construction work carried out by direct employees of government departments, local authorities, new towns and nationalised industries in the transport sector, where information is available, is no longer included in the published construction output and employment statistics. Output by direct employees of utilities and other public sector organisations is also excluded from construction. Such work is classified to the same SIC heading as the establishment which they serve.

## **New construction work**

Includes extensions, major alterations (improvements), site preparation and demolition, except for housing where work done on improvements, extensions and alterations and house/flat conversions is included under repair and maintenance. New construction work includes houses converted to other uses.



## Public and private sector

Public work is for any public authority such as government departments, public utilities, nationalised industries, universities, the Post Office, new town corporations, housing associations etc.

Private work is for a private owner or organisation or for a private developer, and includes work carried out by firms on their own initiative. It includes work where the private sector carries the majority of the risk/gain. In principle, all Private Finance Initiative (PFI) contracts are private.

## Sampling frame

We maintain a comprehensive list of UK businesses for statistical purposes called the Inter-Departmental Business Register (IDBR). It provides a sampling frame for surveys of businesses carried out by us and by other government departments. It is also a key data source for analyses of business activity.

The main administrative sources for the IDBR are VAT trader and PAYE employer information passed to the us by HM Revenue and Customs; details of incorporated businesses are also passed to us by Companies House. This is supplemented by our survey data and survey information from:

- Department of Enterprise, Trade and Investment – Northern Ireland (DETINI)
- Department for Environment, Food and Rural Affairs (Defra) farms register

The IDBR combines the information from the 3 administrative sources with this survey data in a statistical register comprising over 2 million enterprises. These comprehensive administrative sources combined with the survey data contribute to the coverage on the IDBR, representing nearly 99% of UK economic activity, one of its main strengths. The IDBR covers businesses in all parts of the economy, missing some very small businesses without VAT or PAYE schemes (self employed and those with low turnover and without employees) and some non-profit making organisations.

The IDBR has replaced the Builders' Address File (BAF), which was used as a sampling frame until the end of 2009.

## Construction new orders and output

### Value of new orders

This information relates to contracts for new construction work awarded to main contractors by clients in both the public and private sectors, including extensions to existing contracts and construction work in "package deals". Also included is speculative work, undertaken on the initiative of the firm, where no contract or order is awarded; the value of this work is recorded in the period when foundation works are started, such as on houses or offices for eventual sale or lease.

From Quarter 2 (Apr to Jun) 2013 we ceased the collection of data using the quarterly survey of contracts and new orders (also known as the new orders survey). Barbour ABI now supply current price data to us. The first published estimates using the Barbour ABI data took place in September 2013. The data are revalued at constant (2005) prices, then seasonally adjusted and converted into index form based on 2005=100.

Regional classification of orders is based on the location of the site work, not the location of the firm, by using regional boundaries. Contracts are allocated to types of work according to the type of construction involved, not the type of client.

### Value of output

Output is defined as the amount chargeable to customers for building and civil engineering work done in the relevant period excluding VAT. As well as work charged to customers, businesses are asked to include the value of work done on their own initiative on buildings such as dwellings or offices for eventual sale or lease, and of work done by their own operatives on the construction and maintenance of their own premises. The value of goods made by businesses themselves and used in the work is also included. In all returns, work done by sub-contractors is excluded to avoid double counting, since sub-contractors are also sampled. The new orders data are used to distribute the overall estimate of output on new work (based on business returns) between the

different types of new work carried out and the location of the work. The regional classification of new work is therefore based on the location of site work, while for repair and maintenance it is based on the location of the firm.

The figures collected are at current values. These are re-valued at constant prices and then seasonally adjusted and converted into index form, based on 2005=100.

The estimates of the value of output no longer include estimates of “unrecorded output” of firms and individuals not on the statistical register.

Output does not include payments made to architects or consultants from other firms - this would also cover engineers and surveyors. However, it would include wages paid to such people if they were directly employed by the business.

## **Direct labour output of public sector**

Direct Labour Output stopped being collected from January 2010. Government departments, local authorities, new towns and national industries in the transport sector (where information was available) were surveyed quarterly, in respect of work done by employees engaged on building and civil engineering work. Output by direct employees of other public bodies such as NCB and UKAEA was excluded from construction. Such work was classified to the same heading as the establishment which they serve.

## **Type of new work: detailed descriptions**

Orders and output have been classified in accordance with revised descriptions given below from Quarter 1 (Jan to Mar) 1980. Prior to Quarter 1 (Jan to Mar) 1980 there were differences in definition; “Housing and Construction Statistics: Notes and Definitions Supplement, 1991” has more information.

Work for the following organisations has been classified to the private sector:

- from Quarter 1 (Jan to Mar) 1985, telephone exchanges and cabling work for British Telecom
- from Quarter 1 (Jan to Mar) construction work for British Gas
- from Quarter 1 (Jan to Mar) 1991, construction work for electricity companies in England and Wales
- from Quarter 2 (Apr to Jun) 1996 construction work for rail companies

## **Examples of type and kind of work covered<sup>1</sup>**

### **Public sector housing**

Local authority housing schemes, hostels (except youth hostels), married quarters for the services and police; old peoples' homes; orphanages and children's remand homes; and the provision within housing sites of roads and services for gases, water, electricity, sewage and drainage.

### **Private sector housing**

All privately owned buildings for residential use, such as houses, flats and maisonettes, bungalows, cottages, vicarages, and provision of services to new developments.

## **Infrastructure**

### **Water**

Reservoirs, purification plants, dams (except for hydro- electric schemes), aqueducts, wells, conduits, water works, pumping stations, water mains, hydraulic works.

### **Sewerage**

Sewerage disposal works, laying of sewers and surface drains.

## **Electricity**

All buildings and civil engineering work for electrical undertakings such as power stations, dams and other works on hydro-electric schemes, sub-stations, laying of cables and the erection of overhead lines.

## **Gas**

Gas works, gas mains and gas storage.

## **Communications**

Post offices, sorting offices, telephone exchanges, switching centres, cables.

## **Air Transport**

Air terminals, runways, hangars, reception halls, radar installations, perimeter fencing, etc, which are for use in connection with airfields.

## **Railways**

Permanent way, tunnels, bridges, cuttings, stations, engine sheds, etc, and electrification of both surface and underground railways.

## **Harbours (including waterways)**

All works and buildings directly connected with harbours, wharves, docks, piers, jetties (including oil jetties), canals and waterways, dredging, sea walls, embankments, and water defences.

## **Roads**

Roads, pavements, bridges, footpaths, lighting, tunnels, flyovers, fencing.

## **Non-housing excluding infrastructure<sup>2</sup>**

### **Factories**

Factories, shipyards, breweries, chemical works, coke ovens and furnaces (other than at steelworks), skill centres, laundries, refineries (other than oil), workshops, Royal Mint (in public sector).

### **Warehouses**

Warehouses, wholesale depots.

### **Oil**

Oil installations including refineries, distribution pipelines and terminals, production platforms (but not modules or rigs).

### **Steel**

Furnaces, coke ovens and other buildings directly concerned with the production of steel (excludes offices and constructional steelwork).

### **Coal**

All new coal mine construction such as sinking shafts, tunnelling, works and buildings at the pithead which are for use in connection with the pit. Open cast coal extraction is excluded.

## **Schools and colleges**

Schools or colleges (including technical colleges and institutes of agriculture) except medical schools junior special schools which are classified under 'Health'. Schools and colleges in the private sector are considered to be those financed wholly from private funds such as some religious colleges including their halls of residence.

## **Universities**

Universities including halls of residence, research establishments.

## **Health**

Hospitals including medical schools, clinics, surgeries (unless part of a house); medical research stations (except when part of a factory, school or university), welfare centres, centres for the handicapped and for rehabilitation; adult training centres and junior special schools.

## **Offices**

Office buildings, banks, embassies. Police HQ's, local and central government offices (including town halls) are classified to the public sector.

## **Entertainment**

Theatres, concert halls, cinemas, film studios, bowling alleys, clubs, hotels, public houses, restaurants, cafes, holiday camps, yacht marinas, dance halls, swimming pools, works and buildings at sports grounds, stadiums and other places of sport or recreation and for commercial television, betting shops, youth hostels and centres; service areas on motorways are also classified in this category as the garage is usually only a small part of the complex which includes cafes and restaurants.

## **Garages**

Buildings for storage, repair and maintenance of road vehicles; transport workshops, bus depots, road goods transport depots and car parks.

## **Shops**

All buildings for retail distribution such as shops, department stores, retail markets and showrooms.

## **Agriculture**

All buildings and work on farms, market gardens and horticultural establishments such as barns, animal houses, fencing, stores, greenhouses, boiler houses, agricultural and fen drainage and veterinary clinics, but not houses (defined in category (c)), or buildings solely or mainly for retail sales which are included under "shops".

## **Miscellaneous**

All work not clearly covered by any other heading, such as; fire stations; barracks for the forces (except married quarters, classified under "Housing"), naval dockyards; RAF airfields, police stations, prisons, reformatories, remand homes, borstals, civil defence work, UK Atomic Energy Authority work, council depots, public conveniences, museums, conference centres, crematoria, libraries, caravan sites; (except those at holiday resorts) exhibitions, wholesale markets, Royal Ordnance factories.

## **Repair and maintenance**

This concerns work, which is either repairing something which is broken, or maintaining it to an existing standard. For housing output, this includes repairs, maintenance, improvements, house/flat conversions, extensions, alterations and redecoration on existing housing. For non-housing this includes repairs, maintenance and redecoration on existing buildings, which are not housing, such as schools, offices, roads, shops.

# Structure of the construction industry

## Private contractors construction work

The information from the output survey and the basic information held on the statistical register (Builders' Address File (BAF) pre-2010 and Inter-Departmental Business Register (IDBR) from 2010) forms the basis of several analyses of the structure of the private construction industry by size of firm, by trade of firm and by region of registration. The results are adjusted to allow for non-response but, unlike the quarterly output and employment series (before 2010), no adjustment is made to allow for firms not on the statistical register. Because of this, historical changes between the years may simply have reflected changes in the BAF rather than structural changes in the industry. For example the increase in the number of firms in 1982 and 1983 was due mainly to the addition of firms identified in the industry following a "matching" of the VAT based register and the department's construction register. There was also a discontinuity between 1991 and 1992 as a result of improvements to the coverage of the BAF results following the matching exercise carried out with IDBR, maintained by ONS. Likewise, the reduction between 1995 and 1996 was due to further acceptance of information from the IDBR.

Although the term "firms" is used throughout, strictly these are "reporting units". Some large firms, instead of reporting as single units, prefer to report the operations of parts of their companies (such as regional divisions) separately. Other companies may make single returns covering associated companies each of which are legally separate firms.

The size of a firm is determined by total direct employment – this includes working proprietors as well as employees. Each firm self-classifies trade based on the activity that forms the most significant part of its turnover. The regional classification is by reference to the address of the reporting office.

## Insolvencies

Figures for bankruptcies include receiving orders, administration orders and deeds of arrangement made during the year, excluding any rescinded before the end of the year. The debtor may be an individual or a partnership: if orders are made against each member of a partnership, these are consolidated into a single order before being administered. The analysis of occupations relates only to the self-employed, not to employees or company directors who account for 20 to 25% of bankruptcies and who are included in the total of all orders.

Liquidations of companies include those that are compulsory following court orders, and creditors' voluntary liquidations when debtor companies wind-up their affairs after agreeing terms with their creditors.

Analyses by industry are not available for sequestrations in Scotland.

## Construction output price indices

These indices measure the movement of prices of construction work being carried out.

Since the responsibility for Construction Price and Cost Indices (CPCIs) moved to us from BIS on 1 April 2015, we have developed interim construction output price indices (OPIs).

The interim construction OPIs use a project cost approach, where the input costs of different construction projects are used as a proxy for output prices.

Using this approach, an index has been produced for:

- new work (with sub-indices for housing, private commercial, private industrial, public other and infrastructure construction),
- repair and maintenance (with sub-indices for housing and non-housing)
- all construction (an aggregate of new work and repair and maintenance).

## Price indices for new work

To measure price change for the new work projects, price changes for 3 categories of inputs are measured: labour, plant and materials.

## Labour

The seasonally adjusted Average Weekly Earnings index (AWE) for construction excluding bonuses is used to measure changes in the price of labour. Since the AWE is not available at a more detailed level than all construction, the same index is used to represent labour costs for each of the sub-indices.

## Plant

The Services Producer Price Index (SPPI) for construction plant hire is used to measure changes in the price of plant used in construction. Similarly to labour, the SPPI for construction plant hire is not available for specific construction work types, so the same index is used for each of the sub-indices produced.

## Materials

An aggregate of relevant individual Producer Price Indices (PPIs) is used to measure changes in material costs. The selection of PPIs used is based on the data we submit to Eurostat as part of the European Price Comparison Programme - for which the UK must submit prices for a basket of goods, including a selection of buildings and civil engineering works projects that are representative of UK construction.

## Price indices for repair and maintenance

For repair and maintenance, price changes for 2 categories of input are measured: labour and materials. For new work, plant is required mainly to carry out earth works. Plant is not

something that is not required to such an extent for repair and maintenance, so it is not included. The approach taken is slightly different for the housing and non-housing indices.

For housing a combination of CPI and PPI is used. The CPI for “services for the regular repair of dwelling” is used to measure changes in labour costs and PPIs for a selection of materials relevant to residential repair and maintenance is used to capture changes in the materials component.

Non-housing repair and maintenance uses a similar approach to that of housing, however, since the materials used for non-housing will be different, the list of PPIs selected is amended to better represent non-housing materials. The materials that are considered to be most representative have been combined separately for an office, a factory and for infrastructure, before being combined into an overall index for materials.

[Monthly construction OPIs series from January 2014 to March 2015](#) and further information on the methods used to produce them are available.

The following table shows which deflators are used.

```
.tg {border-collapse:collapse;border-spacing:0;} .tg td{font-family:Arial, sans-serif;font-size:14px;
padding:10px 5px;border-style:solid;border-width:1px;overflow:hidden;word-break:normal;} .tg th
{font-family:Arial, sans-serif;font-size:14px;font-weight:normal;padding:10px 5px;border-style:solid;
border-width:1px;overflow:hidden;word-break:normal;} .tg .tg-yw4l{vertical-align:top}
```

<b>Sector deflator</b>	<b>Name of deflator used</b>
Public housing new <sup>3</sup>	Housing (public and private) new work output prices
Private housing new <sup>2</sup>	Housing (public and private) new work output prices
Infrastructure new	Infrastructure new work output prices
Public non-housing new	Public (other than housing) new work output prices
Private industrial new	Private Industrial new work output prices
Private commercial new	Private Commercial new work output prices
Public housing repair and maintenance <sup>2</sup>	Housing repair and maintenance output prices
Private housing repair and maintenance <sup>2</sup>	Housing repair and maintenance output prices
Infrastructure repair and maintenance <sup>4</sup>	Non-housing repair and maintenance output prices
Public and private non-housing repair and maintenance	Non-housing repair and maintenance output prices

## **Construction Investment**

There is information on expenditure on fixed assets and cover replacement of, or addition to, existing fixed assets in National Income and Expenditure (HMSO).

## **Trends in employment and the professions**

### **Manpower**

The data source can be found in [Labour Market Statistics](#)

### **Employees' Earnings and Hours**

Information on earnings and hours is obtained from the [Annual Survey of Hours and Earnings](#) (ASHE) publication.

The 2007 results took account of a small number of methodological changes to improve the quality of results. These included changes to the sample design itself, as well as the introduction of an automatic occupation coding tool, ACTR. Therefore these results are only continuous with the 2006 results that have been produced using this methodology and are discontinuous with results from previous years.

## **Construction building materials**

The following notes show that in a number of cases information is collected more frequently than quarterly. This additional information is included in the monthly [Building materials and components publication](#) produced by the Department of Business, Innovation & Skills (BIS).

### **Bricks**

Information on the production, deliveries and stocks of bricks is collected monthly from each brickworks in Great Britain. Bricks are classified as:

- facing, where appearance is important
- engineering, where strength is important
- common, where neither appearance nor strength is a requirement.

Regional figures for brick deliveries refer to deliveries from brickworks in the region to destinations both within and outside the UK.

## Concrete Building Blocks

Information is collected monthly from the major producers and quarterly from all producers. The inquiry is voluntary for the first 2 months of each quarter whereas the quarterly inquiry is covered by the Statistics of Trade Act. The results of the quarterly inquiry are used to adjust those for the first 2 months of each quarter.

## Sand and gravel

Information is collected quarterly under the Statistics of Trade Act from a sample of producers and the results are grossed using the latest available Annual Mineral Raised Inquiry (AMRI) which covers all producers of sand and gravel.

## Crushed rock

Information on crushed rock is collected annually in AMRI and is available about 10 months after the end of the latest year being collected. Detailed geographical analysis of the production of both crushed rock and sand and gravel are published annually in [Business Monitor PA 1007 – Mineral extraction in Great Britain](#).

## Cement

From the beginning of 1996, all the UK manufacturers are covered, with cement production being extended to include exports, and cement deliveries being extended to include all imports, rather than only manufacturers' imports. Fibre Cement Products Information on fibre cement products is collected quarterly.

## Concrete Roofing Tiles

The figures relate to roof area covered and are derived from the quarterly returns of individual producers.

## Ready Mixed Concrete

The figures are for production in the UK and are based on a quarterly summary of production provided by the Quarry Products Association.

## Slate

Information on the production, deliveries and stocks of slate is collected quarterly from individual producers. The figures exclude slate waste used for fill.

## Imports and Exports of Building Materials and Components

The figures are derived from the total import and export values for the commodities, which are published in [Overseas Trade Statistics](#) (TSO). As many of the commodities are not used solely in construction, estimates have been made of the imports and exports for constructional use.

## Notes:

1. Mixed development schemes are included in the category which describes the major part of the scheme.
2. Private work is classified between industrial and commercial as follows:
  - Industrial – factories, Warehouses, Oil, Steel, Coal
  - Commercial – Schools and Colleges, Universities, Health, Offices, Entertainment, Garages,



- Shops, Agriculture, Miscellaneous.
3. The same index is used for both private and public sectors as it is not possible to split the services elements to account for differences in the amount charged for private and public clients. However, it is likely that repair and maintenance prices will move in a similar way for both private and public construction activities.
  4. There is no separate deflator for this sector. Non-housing repair and maintenance is used.