

Information paper

Quality and Methodology Information

General details

Title of output:	New orders in the construction industry
Abbreviated title:	New orders
Designation:	National Statistics
Geographic coverage:	Great Britain
Date of last SQR or QMI*:	November 2013
Contact details:	construction.statistics@ons.gov.uk

Executive summary

This report is part of a rolling programme of quality reports being introduced by the Office for National Statistics (ONS). The full programme of work being carried out on [Statistical Quality](#)¹ is available on the ONS website. The aims of the Quality and Methodology Information reports (QMI) are to provide users with a greater understanding of our statistics, their quality and the methods that are used to create them.

From quarter two of 2013 ONS ceased the collection of data using the quarterly survey of contracts and new orders (also known as the new orders survey). Requests for suppliers were sent to public tender prior to the survey closure with the chosen supplier, Barbour ABI, supplying current price data to the ONS from quarter two 2013. The first published estimates using the Barbour ABI data took place in September 2013.

This report relates to new orders estimates at current price, constant price and seasonally adjusted constant price produced from data supplied by Barbour ABI and is published in the [Construction Output](#)² Statistical Bulletin.

The key users of new orders data are industry analysts requiring a leading indicator of the UK construction industry, trade associations making UK and international comparison and other Government departments including; Department for Business, Innovation and Skills (BIS), HM Treasury (HMT) and the Department for Communities and Local Government (DCLG).

This document contains the following sections:

- Output quality;
- About the output;
- How the output is created;
- Coherence and comparability;
- Concepts and definitions;
- Other information, relating to quality trade-offs and user needs; and
- Sources for further information or advice.

* Quality and Methodology Information' (QMI) replaced 'Summary Quality Reports' (SQR) from 04/11

Output quality

This document provides a range of information that describes the quality of the data and details any points that should be noted when using the output.

ONS has developed [Guidelines for Measuring Statistical Quality](#)³; these are based upon the five European Statistical System (ESS) Quality Dimensions. This document addresses these quality dimensions and other important quality characteristics, which are:

- Relevance;
- Timeliness and punctuality;
- Coherence and comparability;
- Accuracy;
- Output quality trade-offs;
- Assessment of user needs and perceptions; and
- Accessibility and clarity.

More information is provided about these quality dimensions in the sections below.

About the output

Relevance

(The degree to which statistical outputs meet users' needs.)

Table 1: Basic survey information

What it measures	Value of new orders of main contractors by type of work and region
Frequency	Quarterly
Sample size	All local authorities in England, Scotland and Wales in addition to 10,000 contractors per annum
Period available	From quarter two 2013
Sample frame	Not applicable
Sample design	Not applicable
Weighting and estimation	Not applicable
Imputation	Not applicable
Outliers	Not applicable
Forecasting	None

The Barbour ABI data are primarily sourced from all the local authorities in England, Scotland and Wales which are monitored daily to identify planning applications as soon as they are published.

The local authorities are monitored on a daily basis using a proprietary web-scraping engine which identifies planning applications as soon as they are published.

Additional contract sources are also monitored to collect details of public sector tenders and new orders as they are placed. Client-side research is also carried out to identify future planned projects funded by local authorities, government departments, deregulated industry and the largest property owners in the private sector.

Barbour ABI's telephone research team speak to a minimum of 10,000 contractors per annum about work they are bidding for or are already actively involved in. This enables the addition of contract data to schemes already being tracked, and also to identify further projects at a very early stage in the construction life cycle.

Other contract sources, such as the Official Journal of the European Union, are also monitored daily to collect details of public sector tenders and new orders as they are placed.

Timeliness and punctuality

(Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the gap between planned and actual publication dates.)

Results produced from the Barbour ABI are published quarterly on the second Friday, in the third month after the quarter end.

The data are published in the [Construction Output](#)² Statistical Bulletin. Data are also available in MS Excel format on the [New Order's Homepage](#)⁴.

For more details on related releases, the [UK National Statistics Publication Hub](#)⁵ is available online and provides 12 months' advance notice of release dates. In the unlikely event of a change to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully at the same time, as set out in the [Code of Practice for Official Statistics](#)⁶.

Access to data at the individual business level is restricted. The confidentiality of the data is legally enforced by the Statistics of Trade Act 1947 in Great Britain and in Northern Ireland the Statistics of Trade and Employment (NI) Order 1988.

The data are published each quarter on the ONS website via the Construction Output Statistical Bulletin. To accompany the bulletin, a full set of estimates are available in MS Excel format. Longer runs of series at current price (to 1958), constant price and constant price seasonally adjusted (to 1964) is also available on the new orders Homepage.

Reliability

Assessing the revision between the first published estimate and the final estimate provides an indication of reliability. Revisions are monitored on a quarterly basis. Due to the short time series only one time period is available for analysis at this time.

How the output is created

Coverage and sample

In addition to the data collection methods described above, current price data are also collected by Barbour ABI using client-side research. This is carried out to identify future planned projects funded by local authorities, government departments, deregulated industry and the largest property owners in the private sector.

Once projects have been identified and entered into the database, projects are separated into:

- schemes worth more or less than £100,000 for non-residential projects; and
- two houses or more for residential schemes.

All projects are coded and categorised in accordance with this split so that different types of work taking place can be identified. Barbour ABI has mapped its in-house categorisation to the ONS taxonomy for 23 types of work.

All schemes worth more than £100,000 (non-residential) or for two or more houses (residential) are then passed to Barbour ABI's in-house telephone research team to enable data gathering. Barbour ABI's researchers make more than 25,000 in-depth telephone calls per month to information providers and contacts.

Disaggregated series are quality assured and the current price data are transmitted securely to ONS for continued processing.

Deflation

ONS receives a deflator for each of the sectors published from the Building Cost Information Service (BCIS) on a quarterly basis. The supplied deflators are Tender Price Indices (TPIs) and are applied to the appropriate sector to produce a Constant Price (KP) series. The TPIs are revised back two quarters as a result of additional data received by BCIS, resulting in further revisions to the KP series. These price indices are applied to the current price series received from Barbour ABI to derive constant price estimates.

Seasonal adjustment

The constant price series is seasonally adjusted using a seasonal adjustment software tool called X-12-ARIMA. Constant Price Seasonally Adjusted (KPSA) estimates are produced on a quarterly basis.

Coherence and comparability

Coherence and comparability

(Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain for example, geographic level.)

Coherence

To ensure that the new orders series is coherent, period-on-period growths are analysed appropriately but no comparison is made with other surveys.

Comparability

The new orders survey began in 1955, with the Board of Trade (later the Department for Trade and Industry (DTI)). Responsibility later transferred to the Department for Business, Enterprise and Regulatory Reform (BERR) before its amalgamation with the Department for Innovation, Universities and Skills (DIUS) to create BIS). Survey responsibility was transferred to ONS in March 2008. The subsequent redevelopment of the Output statistics has meant that a revised back series of data at sector level to 1955 and at type of work and regional level to 1980 has been produced. These are available on the new orders homepage.

There are discontinuities at disaggregated level between quarter one and quarter two of 2013 caused by the change in source data. Statistical tests carried out by ONS have proven the Barbour ABI data to be cumulatively comparable to the previous survey data, although short term discontinuities have been accepted due to the increase in coverage from the new data source and the resultant increase in quality. There are no strategies in place to create a back series based on data received by Barbour ABI.

Concepts and definitions

(Concepts and definitions describe the legislation governing the output and a description of the classifications used in the output.)

The definitions used in the new orders data are a bespoke classification falling under two main classifications; new housing and other new work.

The full classification structure used within the new orders time series is as follows.

Sector

1. All new work
 - a. New housing
 - i. Public new housing
 - ii. Private new housing
 - b. All other work
 - i. Other new work
 1. Infrastructure
 2. Public other new work
 3. Private industrial other new work
 4. Private commercial other new work

Regional breakdowns and a more granular breakdown by type of work are also published.

Region

1. North East
2. Yorkshire and the Humber
3. East Midlands
4. East of England
5. London
6. South East
7. South West
8. Wales
9. West Midlands
10. North West

11. Scotland

Type of work

1. Total new work

- a. Public Housing
- b. Private Housing
- c. Infrastructure*
 - i. Water
 - ii. Sewerage
 - iii. Electricity
 - iv. Roads
 - v. Railways
 - vi. Harbours
 - vii. Other
- d. Other public non-housing
 - i. Other public industrial
 - ii. Schools and colleges
 - iii. Universities
 - iv. Health
 - v. Offices
 - vi. Entertainment
 - vii. Garages, shops
 - viii. Agriculture, Miscellaneous
- e. Private industrial
 - i. Factories
 - ii. Warehouses
 - iii. Oil, steel, coal
- f. Private commercial
 - i. Schools, universities
 - ii. Health
 - iii. Offices
 - iv. Entertainment
 - v. Garages
 - vi. Shops
 - vii. Agriculture, miscellaneous

*Infrastructure is further disaggregated into public and private infrastructure.

Definitions

Housing

Housing is generally defined as 'all buildings that are constructed for residential use'. Within the public sector this classification includes construction items such as 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 includes all privately owned buildings for residential use, such as houses, flats and maisonettes, bungalows, cottages, vicarages, and the provision of services to new developments.

Infrastructure

Infrastructure is the generic term for the basic physical and organisational structures and facilities needed for the operation of a society or enterprise. These construction items include buildings, roads and power supplies.

Other new work

Other new work excludes the housing and infrastructure sectors. This classification includes construction items such as factories, warehouses, schools and offices.

Non-housing

Within the public sector, non-housing is classified as the construction of buildings such as schools and colleges, hospitals, universities, fire stations, prisons and museums. Private sector non-housing comprises the private/industrial and private/commercial classifications. Private/industrial is the economic activity concerned with the processing of raw materials and manufacture of goods in factories and includes construction items such as factories and shipyards while private/commercial includes all items not included in the previous categories such as embassies, theatres, retail units, warehouses and garages.

Table 2 below summarises the current quarterly new orders estimates produced and published by ONS:

Table 2: Summary of outputs

Table	Series	Sector breakdown	Inputs
1	Seasonally adjusted, Constant price (2005), Index numbers, Sector	Public new housing Private new housing Infrastructure Public other new work Private industrial other new work Private commercial other new work	Current price data, Deflators, X-12-ARIMA seasonal adjustment model
2	Seasonally adjusted, Constant price (2005), volume, Sector	Public new housing Private new housing Infrastructure Public other new work Private industrial other new work Private commercial other new work	Current price data, Deflators, X-12-ARIMA seasonal adjustment model
3	Non-seasonally adjusted, Constant price (2005), volume, Sector	Public new housing Private new housing Infrastructure Public other new work Private industrial other new work Private commercial other new work	Current price data, Deflators
4	Non-seasonally adjusted, Current price, Value, Sector	Public new housing Private new housing Infrastructure Public other new work Private industrial other new work Private commercial other new work	Current price data
5	Non-seasonally adjusted, Current price, Value, Sector, Type of work	Public new housing Private new housing Infrastructure Public other new work Private industrial other new work Private commercial other new work	Current price data
6	Non-seasonally adjusted, Current price, Value, Region, Sector	Public new housing Private new housing Infrastructure Public other new work Private industrial other new work Private commercial other new work	Current price data

Other information

Output quality trade-offs

(Trade-offs are the extent to which different dimensions of quality are balanced against each other.)

The number of data collected quickly means that provisional outputs are timely, but more reliable estimates are available in subsequent months. One of the benefits of the new data source is that contracts are tracked from order to completion and any cancellations to contracts are reflected in revised data. This precise data tracking was unavailable using the previous survey methodology.

Assessment of user needs and perceptions

(The processes for finding out about uses and users, and their views on the statistical products.)

New orders in the Construction Industry estimates are widely used both internally and externally and have been identified by user engagement surveys.

The key users of data from the new orders of the construction industry dataset are:

- industry analysts requiring estimates of the value of new orders in the construction industry in Great Britain;
- trade associations making UK and international comparisons and to forecast trends in the construction industry; and
- other government departments including: the Department for Business, Innovation and Skills, HM Treasury, Department for Communities and Local Government and the Office for Budgetary Responsibility (OBR).

The [user engagement](#)⁷ section of the ONS website contains results of the survey held in April 2011 regarding users' satisfaction and use of the new orders and construction output surveys.

All issues relating to the collection and dissemination of construction statistics are discussed at the [Consultative Committee on Construction Industry Statistics \(CCCIS\)](#)⁸, which meets twice a year and is chaired by BIS.

Sources for further information or advice

Accessibility and clarity

(Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the release details, illustrations and accompanying advice.)

ONS's recommended format for accessible content is a combination of HTML web pages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. The ONS website also offers users the option to download the narrative in PDF format. In some instances other software may be used, or may be available on request. Available formats for content published on the ONS website but not produced by the ONS, or referenced on the ONS website but stored elsewhere, may vary. For further information please refer to the contact details at the beginning of this document.

For information regarding conditions of access to data, please refer to the links below:

- [Terms and conditions \(for data on the website\)](#)⁹;
- [Copyright and reuse of published data](#)¹⁰;
- [Pre-release access \(including conditions of access\)](#)¹¹; and
- [Accessibility](#)¹².

The [new orders publications and data](#)¹³ are available free of charge from the ONS website. Data tables contain a long run of time series back to 1958 at current prices and 1964 for constant prices.

The [construction pages](#)² also contain additional information about all aspects of construction new orders and output.

References

	Title of reference	Location of reference
1.	ONS Statistical Continuous Improvement	http://www.ons.gov.uk/ons/guide-method/method-quality/ons-statistical-continuous-improvement/index.html
2.	Construction output	http://www.ons.gov.uk/ons/rel/construction/output-in-the-construction-industry/index.html
3.	Guidelines for measuring statistical quality	http://www.ons.gov.uk/ons/guide-method/method-quality/quality/guidelines-for-measuring-statistical-quality/index.html
4.	New orders homepage	http://www.ons.gov.uk/ons/rel/construction/new-orders-in-the-construction-industry/index.html
5.	Publication hub	http://www.statistics.gov.uk/hub/index.html
6.	Code of Practice	http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html
7.	User engagement	http://www.ons.gov.uk/ons/about-ons/get-involved/consultations/index.html
8.	CCCIS	https://www.gov.uk/government/publications/cccis
9.	Terms and conditions	http://www.ons.gov.uk/ons/site-information/information/terms-and-conditions/index.html
10.	Copyright and reuse	http://www.ons.gov.uk/ons/site-information/information/creative-commons-license/index.html
11.	Pre-release access	http://www.ons.gov.uk/ons/guide-method/the-national-statistics-standard/code-of-practice/pre-release-access/index.html
12.	Access to unpublished data	http://www.ons.gov.uk/ons/about-ons/who-we-are/services/unpublished-data/index.html
13.	New orders publication and data	http://www.ons.gov.uk/ons/rel/construction/new-orders-in-the-construction-industry/index.html