Business Insights and Conditions Survey (BICS) QMI

Quality and Methodology Information for the Business Insights and Conditions Survey, detailing the strengths and limitations of the data, methods used, and data uses and users.

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1 . Output information

- Survey name: Business Insights and Conditions Survey (BICS)

- Frequency: Twice a month

- How compiled: Inter-Departmental Business Register (IDBR) from Wave 7 onwards

- Geographic coverage: United Kingdom

- Sample size: Approximately 39,000 respondents

- Last revised: 10 October 2024

2 . About this Quality and Methodology Information report

This quality and methodology information (QMI) report contains information on the quality characteristics of the data (including the European Statistical System's five dimensions of quality) as well as the methods used to create it.

The information in this report will help you to:

- understand the strengths and limitations of the data

- learn about existing uses and users of the data

- understand the methods used to create the data

- decide suitable uses for the data

- reduce the risk of misusing data

3 . Important points

- The Business Insights and Conditions Survey (BICS) uses responses from a twice-monthly business survey to deliver real-time information to help assess the impact of issues and events affecting the economy and UK businesses.

- Survey questions primarily cover impacts on financial performance, workforce, prices, trade, and business resilience, though are not limited to these topic areas.

- The survey is voluntary, and these statistics are categorised as [official statistics in development](#).

- Survey questions are reviewed twice a month, and questions are often added, removed or amended to reflect changing circumstances and analytical priorities.

- Based on user feedback, from Wave 24 (February 2021), the survey name changed from the "Business Impact of Coronavirus (COVID-19) Survey" to the "Business Insights and Conditions Survey", to ensure the survey name was reflective of all aspects of the questionnaire, but its purpose remains the same.

- Estimates from the BICS are published twice a month, from Wave 7 (June 2020) onwards, the national estimates are weighted and they are accompanied by unweighted regional estimates.

- From Wave 14 (September 2020), to help further understand the impact of coronavirus (COVID-19) lockdowns and restrictions at a subnational level, weighted subnational estimates for "single-site" businesses only were, and continue to be, published in a [separate statistical release](#).

- From May 2024, weighted subnational estimates for "single-site" businesses are only published to international territorial level 1 (ITL1).

4 . Quality summary

Overview

The Business Insights and Conditions Survey (BICS) collects timely information on the impact of challenges facing the economy and other events on UK businesses. Data are collected through a twice-monthly online questionnaire from a sample of approximately 39,000 businesses, capturing businesses' experiences on topics such as:

- financial performance

- workforce

- prices

- trade and business resilience

Respondents are asked for their experiences at the time of answering the questionnaire, or over a stated reference period, which is either the last two weeks or last month. Survey questions are often added, removed or amended to reflect changing circumstances and analytical priorities.

The BICS sample size has increased over time to allow for deeper and more detailed insights. In summer 2020, the sample design was reviewed and refreshed for Wave 7 of the BICS, which went live on Monday 15 June 2020. The questionnaire was sent to approximately 24,000 businesses, up from approximately 17,000 prior to this change. This sample redesign improved the coverage of smaller-sized businesses, allowing the Office for National Statistics (ONS) to develop weighted BICS estimates, enabling comparison across waves.

The twice-monthly estimates from the BICS are weighted from Wave 7 (June 2020) onwards, with only regional tables remaining unweighted. A detailed description of the weighting methodology and its differences to unweighted results can be found in the [Business Impact of Coronavirus (COVID-19) Survey: preliminary weighted results](#) article.

In autumn 2020, as local coronavirus (COVID-19) lockdowns became more widespread, there was a growing need from users to understand how coronavirus impacts differed by region. Therefore, the BICS sample was reviewed and refreshed once again to improve coverage across all regions of the UK. The sample increased from approximately 24,000 to 39,000 in Wave 17 (November 2020). This enabled the development of weighted subnational BICS estimates for single-sites, which are published within the [Understanding the business impacts of local and national restrictions](#) release.

BICS results are made publicly available in an accessible Excel format and are accompanied by a statistical bulletin. The BICS team also makes the microdata available through the Secure Research Service (SRS) and UK Data Service (UKDS) where academics and accredited institutions can use the BICS data for each published wave. The microdata have been processed to ensure no specific business can be identified.

Uses and users

A number of government departments and other bodies use the BICS' data to support crucial policy decisions, analyse changing economic trends and identify sectoral differences in impacts from key events affecting UK businesses.

Key users include:

- the Cabinet Office

- the Devolved Administrations

- the Department for Energy Security and Net Zero (DESNZ)

- the Department for Business and Trade (DBT)

- the Department for Digital, Culture, Media and Sport (DCMS)

- the Department for Environment, Food and Rural Affairs (DEFRA)

- HM Treasury

- the Bank of England

- Competition and Markets Authority (CMA)

- Climate Change Committee (CCC)

- business and marketing analysts

Strengths and limitations

The main strengths of the survey are that:

- it provides a rapid production of estimates; the online platform currently collects data twice a month, with estimates and reference tables published on the Office for National Statistics (ONS) website within four days of the survey closing

- it is flexible and responsive to changing events; the Business Insights and Conditions Survey (BICS) questionnaire process allows for questions to be added, amended or removed from one wave to another

- it meets data needs; the questionnaire is developed with regular customer and stakeholder consultations, and design expertise is applied in the development stages

- its questions are kept as straightforward as possible and directed at the majority of the business population; however, it is also possible to include questions only relevant for specific sub-samples

- robust methods are adopted for the survey's sampling and weighting strategies to limit the amount of bias (for example, because of non-response and non-sampling errors)

- it is as accurate and reliable as possible through thorough quality-assurance checks and regular reviewing of questions

The main limitations of the survey are that:

- these data are not official statistics, but have been developed to deliver timely indicators

- the unweighted estimates should be treated with caution because they represent the characteristics of only those businesses that responded from the sample and not necessarily the wider business population; therefore, comparisons between waves cannot be made for Waves 1 to 6

- the survey is voluntary and so response rates are lower than for most other ONS business surveys (which are usually mandatory); the low response provides reliable high-level estimates but means more detailed breakdowns may not always be possible

Recent improvements

There have been four important recent improvements to note, which include that:

- in Wave 54, questions were changed to ask specifically about the most recent calendar month rather than "the last month" in relation to the time of completion. Where comparisons are made to previous time periods, the question has been changed to compare to the equivalent month of the year from a year ago rather than "normal expectations". Response options may also have been slightly modified to account for these changes.

- from Wave 92, our standard error confidence intervals datasets have been published in line with each of our main publications.

- in Wave 102 (early February 2024), as part of our ongoing review of respondent feedback, along with stakeholder engagement, and question reviews, the Business Insights and Conditions Survey (BICS) was changed to move to two publications a month as opposed to every two weeks.

- From May 2024, weighted subnational estimates for "single-site" businesses are only published to international territorial level 1 (ITL1).

5 . Quality characteristics of the Business Insights and Conditions data

Relevance

(The degree to which the survey meets users' needs.)

The survey is currently a twice-monthly survey of UK businesses, collecting timely information on the impact of challenges facing the economy and other events on UK businesses. Questions are often requested by both other government departments and other internal Office for National Statistics (ONS) departments.

The Business Insights and Conditions Survey (BICS) provides rapid answers to questions of immediate policy interest, helping to measure key economic impacts on businesses. Topics that have been requested include financial performance, workforce, prices, trade, and business resilience.

Accuracy and reliability

(The degree of closeness between an estimate and the true value.)

The survey measurement will differ from the unknown true value for a number of reasons. The difference is technically known as the total survey error. The total error in a survey estimate is made up of two components: sampling error and non-sampling error.

Sampling error

The Business Insights and Conditions Survey (BICS) is a sample survey, therefore estimates are subject to sampling variability. The size of the sampling variability is dependent upon several factors, including:

- the size of the sample and population

- the effects of the sample design

- the attributes of those businesses, namely turnover and employment figures sourced from the inter-departmental business register (IDBR)

The impact of these varies for different estimates. Standard errors give an indication of the amount that a given estimate deviates from a true population value.

Standard errors have been used to calculate 95% confidence intervals and are included alongside each published Business insights and impact on the UK economy dataset.

Further information on standard errors and confidence intervals is available in Uncertainty and how to measure it for our surveys.

Non-sampling error

Sources of non-sampling error include the following:

- imperfections of the sampling frame (the Inter-Departmental Business Register (IDBR))

- non-response

- response errors (caused by, for example, the respondent misunderstanding the question)

- errors when imputing or processing data

To minimise the effect of non-sampling error, the questionnaire is carefully designed and quality-control procedures are used throughout. Weighting or imputation are used appropriately to compensate for non-response. Imperfections in the IDBR are minimised by applying robust and long-established maintenance and updating procedures.

An enrolment letter is sent, using the address on the IDBR, for each business sampled, asking the business to register to complete the questionnaire online. We do not specify who within the business should be completing the questionnaire, and therefore more specific information (for example, financial performance) might have higher risk of error.

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.)

The estimates in the Business insights and impacts on the UK economy statistical bulletin are based on a single source, which is the Business Insights and Conditions Survey (BICS). This has allowed comparisons over time for key questions on trading status, workforce status, financial performance and business resilience. Key BICS estimates on financial performance and furlough have been shown to be coherent with official estimates.

The BICS' financial performance trends have been compared with monthly GDP in our Economic activity and social change in the UK, real-time indicators publication. We have also published a Comparison of furloughed jobs data article, which examines how official HMRC estimates compare well with timelier BICS estimates, has also been made. Other official sources have often reinforced, at a later date, emerging stories initially picked up in BICS estimates. These are cited in the main release where possible.

Accessibility and clarity

(Accessibility is the ease with which users can 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.)

Each wave, accessible datasets in an Excel format are produced alongside the statistical bulletin. Each workbook contains several different tabs, which are clearly labelled and provide data and information collected for that specific wave as well as previous waves, so results are presented in a time series format. Estimates are broken down by industry, size band and trading status. As questions vary every wave, we include a link to the latest questions for the current live wave and a link to questions from previous waves on the Office for National Statistics (ONS) website.

Anonymised data from the Business Insights and Conditions Survey (BICS) are sent to the ONS' Secure Research Service (SRS) and UK data service (UKDS) to allow users access to the microdata. BICS data are added on a twice monthly basis, with an approximate three-week delay between the initial BICS publication and the data being made available on the SRS and UKDS. The microdata are processed to ensure that no specific business can be identified.

Only researchers accredited under the Digital Economy Act are able to access data in the SRS. You can apply for accreditation through the Research Accreditation Service (RAS). You need to have relevant academic or work experience and must successfully attend and complete the assessed Safe Researcher Training. To conduct analysis with microdata from the SRS, a project application must be submitted to the Research Accreditation Panel (RAP). To access the SRS, you must also work for an organisation with an Assured Organisational Connectivity agreement in place.

Timeliness and punctuality

(Timeliness refers to the lapse of time between data collection and data delivery. Punctuality refers to the gap between planned and actual data delivery dates.)

The Business Insights and Conditions Survey (BICS) collects data every day through its online questionnaire, with every two-week period having a set group of questions referred to as a "Wave". Results from each wave are published just four days after the survey closes, and accompanying analysis is also provided. The publication and dataset are published every other Thursday on the Office for National Statistics (ONS) website (four days after the survey end date).

Concepts and definitions (including list of changes to definitions)

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

EU exit transition period

The EU exit transition is the period agreed in the UK-EU Withdrawal Agreement in which the UK is no longer a member of the EU but continues to be subject to EU rules and remains a member of the single market and customs union. When the UK left the EU on 31 January 2020, it entered the transition period. The transition period came to an end on 31 December 2020.

Reporting unit

The business unit to which questionnaires are sent is called the reporting unit. The response from the reporting unit can cover the enterprise as a whole or parts of the enterprise identified by lists of local units.

Single site

Businesses can have one site or many sites, and these sites can be in one country or region or have a presence across the UK and beyond. By using a single-business-site approach, we exclude businesses with multiple sites. Overall, single-site businesses represent 98% of all businesses and approximately half of total UK turnover and employment.

Why you can trust our data

The Office for National Statistics (ONS) is the UK's largest independent producer of statistics and the recognised national statistical institute of the UK. The Data Strategy, available on the ONS website, details how data are collected, secured and used in the publication of statistics. We treat the data that we hold with respect, keeping it secure and confidential, and we use statistical methods that are professional, ethical and transparent. You can find out more about our data policies on our website.

6 . Methods used to produce the Business Insights and Conditions Survey (BICS) data

Sampling frame

The sample was redesigned ahead of Wave 7 (June 2020), incorporating the following features:

- improved sampling of smaller-sized businesses

- sample selected independently of other Office for National Statistics (ONS) surveys

- businesses joining, staying in, and leaving the sample being managed in a robust and consistent way

- a significantly increased sample size from approximately 17,000 to 24,000 UK businesses

These improvements to our design provided a suitable foundation for weighting to be applied to the, until then, unweighted estimates. The sampling frame used in the Business Insights and Conditions Survey (BICS) for the first six waves was a non-random sub-sample of the listed industries from the Monthly Business Survey (MBS), Retail Sales Index and Construction Surveys, and the design was impossible to weight appropriately.

In Wave 17 (November 2020), the sample size was increased once again to approximately 39,000 businesses, further improving the accuracy across regions and different business sizes.

All businesses with 250 or more employees are included in the BICS sample, with a random stratified sample selected for those with an employment between 0 and 249.

Coverage

The sectors covered are:

- non-financial services, which includes professional, scientific, communication, administrative, transport, accommodation and food, private health and education, and entertainment services

- distribution, which includes retail, wholesale and motor trades

- production, which includes manufacturing, oil and gas extraction, energy generation and supply, and water and waste management

- construction, which includes civil engineering, housebuilding, property development, and specialised construction trades such as plumbers, electricians and plasterers

The following industries are excluded from the survey:

- agriculture

- oil and gas extraction

- energy generation and supply

- public administration and defence

- public provision of education and health

- finance and insurance

Reporting unit

Where more than one type of economic activity is carried out by a local unit or enterprise, its principal activity is the activity in which most of the people are employed, and it does not necessarily account for 50% or more of the total employment of the unit. There are detailed rules for determining Standard Industrial Classification (SIC) for multiple-activity economic units.

How we process the data

The data are validated and cleaned, variables are derived, and weights are applied. As the survey collects information on a sample of the population, the data are weighted to enable us to make inferences from this sample to the entire population.

Businesses only answer questions dependent on previous responses because of routing. As such, weighting is done per question and can mean some variables have low response.

Weighting

Weighted estimates for the Business Insights and Conditions Survey (BICS) are used for all variables that are collected at a UK level. A detailed description of the weighting methodology and its differences to unweighted estimates is available in Business Impact of Coronavirus (COVID-19) Survey (BICS): preliminary weighted results.

On 20 July 2021, experimental weighted regional estimates up to Wave 34 (July 2021) were published in Understanding the business impacts of local and national restrictions, UK: July 2021.

Weighted estimates for businesses with more than nine employees in Scotland only, are available from the Scottish Government. The weighted Scotland estimates are for businesses that have a presence in Scotland, as opposed to only those businesses headquartered in Scotland. Having a presence in Scotland means that the business has a local unit or site (for example, a shop, office or factory) in Scotland.

Different weighting methods are appropriate depending on the type of analysis and policy questions being considered. Most results are weighted by count to be reflective of all UK businesses. As part of our regular and ongoing quality assessment of our methods, we introduced improved methodology for the weighting of smaller businesses within the BICS sample, where we use employment and turnover to do so. This, in the main, did not affect our previous findings, though some revisions were made to estimates back to Wave 7 (June 2020). We continue to publish our weighting methods in the "ad-hoc" tab of our published dataset.

Weighting by count

Weighting by count scales up responses in the Business Insights and Conditions Survey (BICS) to be representative of all businesses in the UK. Using information from the [Inter-Departmental Business Register (IDBR)](#), weighting by count scales up responses for all businesses that have between 0 and 249 employees, to the point where the counts of all businesses of this size in the UK are represented. The size band of greater than 250 employees is completely enumerated, so no weighting is applied.

The weight applied to each response in qualitative questions (for example, on trading status) is based on standard expansion estimation. The weights are calculated for each stratum, that is, a group of businesses with the same characteristics based on [Standard Industrial Classification (SIC) 2007 industry](#), employment size and country. In each stratum, the weight is the ratio of two counts of businesses. The numerator is the count of all businesses in the UK in that stratum; the denominator is the count of businesses responding to the survey.

Weighting BICS responses by count produces the largest differences to the unweighted BICS results (for example, the proportion of businesses that are currently trading). This is mainly because the weights of small businesses are larger. Responses from businesses with zero to nine employees are weighted the most, given that they make up 90% of the total number of businesses in the UK but only around 10% of respondents in the BICS.

Weighting by count provides a good overview of the impact of businesses regardless of their size, allowing for the experience of small businesses to be better represented in headline results.

Weighting by ratio estimation with turnover as the auxiliary variable

The value of turnover is derived using the percentage questions asked on the BICS and registered turnover in the Inter-Departmental Business Register (IDBR), which is used to construct the BICS sampling frame. In effect, businesses with larger turnover are given greater emphasis in results. Once the value of the turnover of responding businesses is derived, a standard ratio estimation, with IDBR turnover as the auxiliary variable, is then used to calculate the weight applied to a particular stratum. Ratio estimation corrects for any imbalances in the selected sample that arise through random chance or non-response.

Weighting by ratio estimation with employment as the auxiliary variable

We first derive counts of employment from the percentage questions asked on the survey (such as the workforce proportions question) and multiply these percentages by the registered employment figure recorded in the Inter-Departmental Business Register (IDBR) at the time of the sample selection. In effect, the percentages reported by businesses with larger employment sizes are given greater emphasis in the results. These counts are then weighted using standard ratio estimation with IDBR employment as the auxiliary variable. By using employment as the auxiliary variable, ratio estimation corrects for any imbalances in the selected sample that arise through random chance or non-response.

Imputation

Imputation is only applied to larger businesses (those with 250 or more employees) as all these businesses in this population are sampled, and the use of imputation based on their response characteristics from earlier waves, where available, is more precise than using weighting to compensate for non-response.

Unweighted regional estimates

Unweighted regional Business Insights and Conditions Survey (BICS) estimates are produced by taking the survey return from each reporting unit and then applying this to the reporting unit's local sites. If a business has a site or several sites (also known as local units) within a country, then this business is defined as having a presence there. The business is then allocated once within each region (regardless of the number of sites) and the information provided by the reporting unit as a whole is copied and used within each country.

How we quality assure and validate the data

There are quality-assurance processes in place from the drawing of the sample and development of the questionnaire to publication of the data and estimates.

These processes include:

- validating the accuracy of businesses in the sample

- conducting a series of checks on the data after collection to identify inconsistencies and invalid responses

- checking estimates at multiple stages between analysis and final reference tables and publication

- conducting curiosity events to investigate and validate movements

- the application of statistical disclosure control; suppressing estimates to avoid any disclosure of personal information

How we disseminate the data

The Office for National Statistics (ONS) currently produces a twice-monthly bulletin capturing businesses' views on financial performance, workforce, prices, trade, and business resilience. This includes a set of reference tables providing further data than those given in the bulletin. In addition:

- weekly slides are provided to the Cabinet Office (CO) and other government departments

- ad-hoc requests are also delivered to both external and internal users and added to the dataset, which can also be found in the ad-hoc area on the ONS website; please note, the ONS may charge for some services, in line with the ONS charging policy - you can take a look at our publication scheme for more information on the services available

- anonymised data are sent to the ONS' Secure Research Service (SRS) and the UK Data Service (UKDS) twice a month