

# Assessment of compliance with the Code of Practice for Statistics Statistics from the Annual Business Survey

(produced by the Office for National Statistics)

## Office for Statistics Regulation

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# Executive Summary

## Why we carried out this assessment

- 1.1 The Annual Business Survey (ABS) is the largest business survey conducted by ONS in terms of the combined number of respondents and variables it covers. ONS collects data from 62,000 businesses in Great Britain, which is supplemented by data collected by the Northern Ireland Statistics and Research Agency (NISRA) through its Annual Business Inquiry (NIABI) on 11,000 businesses in Northern Ireland. It is the main resource for understanding the detailed structure and performance of businesses across the UK and is a key contributor of business information to the UK National Accounts.
- 1.2 OSR has recently conducted several assessments of ONS's annual economic outputs: the [Annual Purchases Survey](#), [Business Demography Statistics](#), the [Living Costs and Food Survey \(LCF\)](#) and now the ABS. Across the OSR's recent assessments, a common theme has emerged to explain the decline in the quality and relevance of ONS business data. A lack of investment, across finance, staff and systems, has meant that ONS has not been able to adequately address data quality and coverage issues, nor develop long-term business data in order to reflect the UK's evolving industrial mix and the evolution of the digital landscape.
- 1.3 Our review aimed to identify opportunities, and to build on ONS's initial good ideas to improve the quality and public value of ABS data. To inform our review, we spoke to a range of statistics producers and users who make use of ABS data to understand how the data are currently used, and identify opportunities to improve their public value.

## What we found

- 1.4 ONS publishes [provisional national data](#) from the ABS on its website in November covering the previous calendar year. [Revised national and regional results](#) are then published in May of the following year, around 17 months after the end of the reference period. Whilst ABS data are used extensively in the measurement of long-run economic concepts such as productivity, the significant time delay on the publication of the data means they are not used to the same extent to measure the ongoing impacts of structural and cyclical changes to the UK economy. As a result, ABS data are not meeting users' needs for timely and detailed data on business performance and users are turning to alternative data sources to gain an understanding of UK business activity. A number of government departments are using business data available on the [Fame](#) database, provided by [Bureau Van Dijk](#) (BVD), in order to better understand the structure of the UK economy.
- 1.5 Basing annual structural business statistics on alternative data sources (administrative, commercial, or business data already held by other government departments) supplemented with survey data collected more effectively has the potential to improve the quality and granularity of annual business data and reduce the burden on reporting businesses. They could also help to improve the timeliness of the data and render them more useful for analysing business trends and tracking the impact of policy changes. Although moving towards greater use of administrative data sources was part of ONS's [five-year strategy](#), little progress has been made to date.

- 1.6 The ABS statistical team has recognised the increased demand for more-detailed data and is pulling together ambitious plans, not only to examine the availability of new data sources, but to examine the possibilities for introducing flexibility into parts of the ABS to allow for additional questions to address current business policy issues. However, the ABS production system does not currently allow for the addition of new data sources, nor the linking of other survey data within its infrastructure. This has effectively restricted efforts to improve the breadth and depth of ABS data and its timeliness.
- 1.7 Throughout the COVID-19 pandemic, ONS was successful in meeting the short-term needs of users through the production of real-time information on business activity. It now needs to use this same agility, innovation, and investment to improve its longer-term measures of economic performance.
- 1.8 ONS's user engagement focuses on the needs of government users. A similar level of engagement needs to be established with users from the private and third sectors, and academia. We welcome that ONS has organised a conference on business data for later in September 2021.
- 1.9 OSR's Assessment Report of UK Business Demography Statistics noted several areas of uncertainty around the quality of business data held on the Inter Departmental Business Register (IDBR). These included concerns around the incorrect classification of businesses in relation to both industry and structure. The IDBR is used as the sampling frame for the ABS and, as such, some of the same concerns identified in the Business Demography report also apply to ABS data.

## Requirements and next steps

- 1.10 We have identified several ways the ABS needs to be improved to meet users' needs and to comply with the highest standards of the Code.
- 1.11 **Requirement 1** ONS needs to urgently prioritise investment in the development of its structural economic statistics, to ensure that the public good is served by them, and in particular to ensure that:
  - a. The granularity and timeliness of the statistics are improved, and
  - b. The decline in the quality of official economic and business data highlighted in the [Bean review of economic statistics](#) does not continue and is reversed.
- 1.12 **Requirement 2** ONS should continue, and develop, its current endeavours to establish what existing data – from administrative, private sector or other sources – could be used as the basis for its annual business statistics. These data have the opportunity to provide much more detail, more quickly and cheaply, with lower respondent burden than running a full survey. ONS should then determine what form of supplementary survey needs to be run to collect those data that are not already available from elsewhere (for example sub-national information), and develop ways to harness existing business data (for example use of accountancy software) or collect data more efficiently (for example through electronic questionnaires).
- 1.13 **Requirement 3** ONS must develop its understanding of the potential uses and value of ABS data, by engaging better with users both inside and outside of government, to ensure that as far as possible its annual business statistics are providing public value. ONS needs to understand what users require from ABS data and demonstrate how it is going to use feedback to inform a development plan for its structural economic statistics. ONS should reflect on the Government Statistical

Service's [User Engagement Strategy for Statistics](#) to assist in selecting the most appropriate methods for engaging with users.

- 1.14 **Requirement 4** ONS should provide clearer indications of the fitness for purpose of the ABS statistics and their strengths and limitations with respect to various potential uses. As part of this, ONS needs to understand and communicate to users the influence of IDBR data quality issues on ABS estimates, to ensure that users are well placed to understand the capability and usability of ABS estimates.
- 1.15 **Requirement 5** ONS should work more urgently with the UK Data Service to improve the access of researchers to ABS microdata. Improving access to this was also a Requirement (1b) of OSR's October 2020 Business Demography Assessment Report.
- 1.16 In addressing these requirements, ONS should seek to apply the same innovative and agile approaches it demonstrated in meeting the demand for short-term business data during the pandemic.
- 1.17 We expect ONS to publish a plan by the end of October 2021, which includes specific actions, deliverables and a timetable that explains how it will address the improvements identified in this report. The UK Statistics Authority will take advice from OSR, based on ONS's progress against this plan to decide whether continued use of the National Statistics designation is merited.

# Findings

## Introduction

- 1.18 The Annual Business Survey (ABS) is the largest business survey conducted by ONS in terms of the combined number of respondents and variables it covers. ONS collects data from 62,000 businesses in Great Britain, which is supplemented by data collected by the Northern Ireland Statistics and Research Agency (NISRA) through its Annual Business Inquiry (NIABI) on 11,000 businesses in Northern Ireland. It is the main resource for understanding the detailed structure and performance of businesses across the UK and is a key contributor of business information to the UK National Accounts.
- 1.19 However, the relevance and public value of ABS data is being diminished by the availability of more-detailed data from other data providers, the lengthy time taken to collect and process ABS data and a lack of investment in ABS staff and systems. In particular, the lack of investment has hampered the development of several initiatives from the statistical team to improve the availability of detailed business data for users. For example, ideas to produce more-detailed data to inform the development and targeting of the [Levelling Up Fund](#) have had to be put on hold until such time as resources can be found to progress this crucial work.
- 1.20 As a statutory annual survey, the ABS produces business data under the [Statistics of Trade Act 1947](#) to be used in the compilation of the National Accounts. ABS is the main source of data used to populate the [Supply and Use Tables](#) (SUT), one of the main data sources used for the compilation of [Gross Domestic Product](#) (GDP). Several adjustments are required to ABS data before they can be used in the compilation of GDP. For example, since the ABS does not cover all of the economy's activity, coverage adjustments are made for the activity of public corporations, including local and central government bodies, [Non-profit Institutions Serving Households \(NPISH\)](#), and parts of the agriculture industry. Conceptual adjustments are also made to ABS data for economic activity not captured in the total turnover of businesses – for activity such as benefits in kind, company cars, property provided by businesses to their employees and tips paid to restaurant staff.
- 1.21 In addition to conceptual adjustments, ABS data are subject to quality and balancing adjustments, which are required to ensure that the three approaches to measuring GDP – production, income and expenditure – are equal. Reduced resources have resulted in a reduction in scrutiny of SUT data sources. This in turn has led to growing incongruence between the unbalanced measures of GDP, and to the production measure of GDP (which is mainly built up using ABS data) being adjusted downwards for issues such as over-recording.
- 1.22 Since 1996, the ABS and its predecessor surveys have supplied structural business data to Eurostat. The UK's departure from the EU means that ONS will no longer need to fulfil this regulatory requirement, but ONS has agreed to provide similar data to the OECD. Nonetheless, ONS needs to also take account of users' demands for more timely and detailed structural business data.
- 1.23 ONS publishes headline results from the ABS in annual bulletins on its website. These provide several high-level indicators relating to UK business activity, such as turnover, purchases and employment costs. They also include estimates of [Approximate gross value added \(aGVA\)](#), which represents the income (turnover) of

UK businesses, less the cost of goods and services consumed in the production process (purchases). ABS data can be used to answer the following questions:

- How much value has been created in a particular industry?
- Has there been a shift in activity from one industrial sector to another, and which industry groups, classes or sub-classes are contributing to the change?
- Are any industries particularly dominant in specific regions or countries of the UK and are there structural changes over time?
- How productive is a particular industry and what is its operating profitability?

- 1.24 The productive contribution of different industries to overall economic activity can be assessed by combining ABS with employment information from the [Business Register and Employment Survey](#) (BRES). It is also possible to get a measure of value added and costs per head to allow better comparison between industrial sectors of different sizes.
- 1.25 ABS microdata are also available to users through the [UK Data Service Secure Lab](#) (DSSL). ABS statistics and microdata are used extensively by industry analysts, economists, and policymakers across government, the private sector and academia to track productive performance and measure investment activity of UK businesses, to inform the development of economic policies such as the Levelling up Fund and [selective industrial policies](#) which form an important part of the [UK's Industrial Strategy](#). The analytical demand on ABS data is increasing, with users wanting business data to answer a range of questions including the impact of climate change legislation on the competitiveness of UK business, the adoption of advanced technology and the use of intangible assets by UK firms and the impact of immigration on productivity.
- 1.26 ABS data are also used by ONS to corroborate the data of other business surveys, including, for example, the [Purchases Survey](#), the [UK Manufacturers' Sales by Product \(Prodcom\)](#), the [Annual Survey of Goods and Services \(ASGS\)](#) and the [Annual International Trade In Services Survey](#).
- 1.27 Brexit and the COVID-19 pandemic have resulted in a substantial increase in demand for data from economic policymakers to understand and address the effects of these shocks on UK business activities. As the UK's largest annual business survey, the ABS should be expected to play a pivotal role in understanding the impact of these two significant economic shocks.

## Value

### ONS Annual Economic Surveys

- 1.28 OSR has recently conducted several assessments of ONS's annual economic outputs: including the Annual Purchases Survey, Business Demography Statistics, the Living Costs and Food Survey (LCF) and now the ABS. Each of these assessments has highlighted several issues with the data quality and value of these annual surveys. These issues have included significant incoherence between estimates of Intermediate Consumption between the Purchases Survey and the ABS, incorrect standard industrial classification in Business Demography (and, by proxy, the ABS) and data volatility in the LCF. The quality of the data in these annual economic surveys was discussed in Sir Charles Bean's review of economic statistics which highlighted the poor profile of official business data (paras 4.188-



4.190), and the need for improvement either through the use of administrative data or the use of unique identifiers.

- 1.29 Across OSR's recent assessments, a common theme has emerged to explain the decline in the quality and relevance of ONS business data. A lack of investment, across finance, staff and systems, has meant that ONS has not been able to address data quality and coverage issues, nor develop business data in order to reflect the UK's evolving industrial mix and the evolution of the digital landscape.
- 1.30 ONS is aware of the need to improve the quality and relevance of these outputs but notes that the investment priority offered to the annual business surveys has not "come above the line". We recognise that the decision to invest in the development of the ABS is challenging, as ONS will need to find additional resource to add to the already significant ongoing costs of production.

## ABS data are being crowded out by alternative sources

- 1.31 In addition to the published data, ONS also supplies bespoke analyses through its special analysis service. However, we found that some government policymakers, industry analysts and think tanks such as [Nesta](#) are turning to alternative data sources to gain an understanding of the impact of economic shocks and to track the evolution in industrial structure. Some government departments (including the Department for Business, Energy and Industrial Strategy (BEIS)), use business data available on the FAME database, provided by Bureau Van Dijk (BVD), in order to understand these impacts and developments.
- 1.32 Fame is a live database, which uses financial data recorded at Companies House to describe the economic and financial performance of UK companies across industries and by size band. Fame data have their limitations as they record the performance only of companies, omitting those businesses that are not legally required to file reports at Companies House. The omission of small and self-employed businesses, not required to file annual accounts at Companies House, means that the Fame data universe does not fully represent all businesses. Users therefore need to take these coverage issues into account when using the data.
- 1.33 Crucially however, Fame records a wider range of business characteristics than the ABS, including data on turnover, employment, company structure and ownership and balance sheet information (the latter is not a reporting requirement for medium-sized and smaller companies). The Bank of England used Fame's greater coverage of business characteristics to examine how [COVID-19 affected small UK companies](#), BEIS used Fame data to estimate the [Economic contribution of private companies of significant size](#) and the Intellectual Property Office used the data to examine the [Use of Intellectual Property rights across UK industries](#). With increasing use of the Fame database in policy design and evaluation, it is becoming apparent that ABS data are being crowded out by this alternative dataset.

## ONS needs to invest in and think creatively about how it can produce better statistics quicker

- 1.34 ONS publishes provisional national data from the ABS on its website in November covering the previous calendar year. Revised national and regional results are then published in May of the following year, around 17 months after the end of the reference period.

- 1.35 This means there is a large time lag between the publication of survey results and the reference period the results refer to. 2020 ABS data will not be available to policymakers until November 2021, based on the current production schedule. OSR recognises ONS's efforts to improve timeliness by shortening publication of national and regional ABS results, by one and two months respectively, to May each year. We also recognise the important trade-off between timeliness and accuracy, However, whilst these improvements are welcome, the time between data collection and publication remains unhelpful to policymakers who require access to structural business data quickly in order to design economic and business support policies to minimise the impact of [market failures](#) such as inefficient trade markets and the dislocation of labour caused by the COVID-19 pandemic. Policy users told us that they would be prepared to forego a degree of data accuracy in favour of more timely data to address these issues.
- 1.36 Whilst ABS data are used extensively in the measurement of long-run economic concepts such as productivity (for example through the [EU KLEMS database](#)), they are not used to the same extent to measure the ongoing impacts of structural and cyclical changes to the UK economy.
- 1.37 ONS must increase its use of alternative data sources (administrative, commercial, or business data held by governments) to improve the quality, granularity and public value of ABS data, and reduce the survey's burden on reporting businesses.
- 1.38 ONS has already begun to consider opportunities for using Fame data. Matching Fame with IDBR data (such as described in this [paper](#)) could present ONS with the opportunity to develop better and faster business data to answer the increased demand for detailed industrial and geographical data for measuring, for example, regional GDP, productivity and income and earnings.
- 1.39 The ABS statistical team could use Fame data in conjunction with business data held by government departments to produce a joined-up picture of local, regional and UK supply chains. More-timely data will allow for almost real-time policy evaluation, which would allow the statistical team to build the additional survey modules that are required to address the needs of economic shocks such as Brexit and the COVID-19 pandemic. The statistical team might also consider how HM Revenue and Customs (HMRC) or Companies House administrative data could further improve the timeliness and depth of annual business statistics and then look to complement and broaden this baseline of business data with other commercial data.
- 1.40 The ABS statistical team has recognised the increased demand for more-detailed regional data and the need to build in the capacity to the ABS to be able to measure the impact of structural economic shocks as and when they occur. The statistical team is pulling together ambitious plans, not only to examine the availability of new data sources to address the need for detailed data, but to examine the possibilities for introducing flexibility into parts of the ABS to allow for additional questions to cover current issues, such as, for example, the availability of finance to small and medium sized enterprises during economic recovery. The statistical team acknowledges that there could be lengthy lead times on the development of adaptations to the ABS, and that significant investment would be needed to research how different data streams can be used together, and challenges (such as in matching records) can be overcome. Therefore in response, short-term solutions are being considered, such as working with small groups of companies to gather qualitative information on prevailing issues.

- 1.41 The ABS statistical team has started to review the data required to answer the needs of the UK Government's levelling up strategy. It has planned qualitative work with businesses to verify the relevance of the data it plans to collect and will review best practice amongst international partners with access to similar administrative (similar tax regimes) data to assist with the apportionment of regional data. The statistical team intends seeking funding for the development of this work under the 2021 Comprehensive Spending Review.
- 1.42 The use of alternative data sources has the potential to enrich the depth, scope, and relevance of annual structural economic data. By answering some of the questions the ABS currently asks, these sources could also offer opportunities to cut down the size of the ABS questionnaire, which is a considerable time and resource burden for statisticians and responding businesses, and enable quicker results. Reducing the length and complexity of the survey should also help to improve the timeliness of the data and render them more valuable.
- 1.43 Other National Statistics Institutes such as the US Census Bureau and the Australian Bureau of Statistics have already demonstrated the capacity of alternative sources to improve the timeliness and scope of their annual business surveys. The following case studies provide examples of ways that ONS could aim to enhance the value of annual economic statistics through linkage with administrative records from the IDBR and external sources.

### Case Study – US Census Bureau

The US Census Bureau uses administrative data to reduce the burden of surveys on respondents and enhance the analytical value of statistical outputs.

The Bureau recently consolidated three previously separate business surveys into one new [Annual Business Survey Programme](#). As part of this, it has produced a new statistical output – [Nonemployer Statistics by Demographic](#) – which uses administrative records and census data to provide information on the nature, scope and activities of US businesses with no paid employment.

By using administrative data, the Bureau can produce more-frequent and higher quality data with no additional respondent burden.

## Case Study – Australian Economic Activity Survey

The [Australian Economic Activity Survey](#) produces estimates of the economic and financial performance of Australian industry – using a combination of data collected directly by the Australian Bureau of Statistics, and Business Activity Statement administrative data from the Australian Taxation Office (ATO).

To minimise the load placed on survey respondents, the Bureau aims to use information sourced from the ATO as much as possible, to reduce the size of the directly collected sample. This enables results to be published 11-12 months after the reference period.

The EAS is used for several purposes including measuring changes in the structure and performance of Australian industry and providing economic indicators that monitor developments in the business cycle. The data also feed into Australia's National Accounts.

The EAS data are presented in an annual bulletin, where a variety of breakdowns is published in an accessible and insightful way for users. This includes analysis of business performance by firm size and detailed breakdowns of firm contributions by state and territory. [This chart](#) illustrates Australian States' representation across several key indicators.

- 1.44 In considering what data it needs to collect directly from businesses, ONS could further improve the timeliness and detail of the ABS using accountancy software and an electronic questionnaire for survey respondents. These developments may also particularly help reduce the burden on larger businesses. ONS has been considering such developments for a long time, with users indicating that they were aware of proposals to use an electronic questionnaire back in the mid-1990s. The statistics team told us that a proposal had been put forward to its Transformation (Aries) Programme to assess the feasibility of moving the ABS on to an electronic questionnaire. However, the work was not deemed to be a priority and is unlikely to be considered again until 2022.
- 1.45 To implement new arrangements, ONS will need to develop its systems to take on and link new data sources and to introduce the use of accounting software and an electronic questionnaire.

## ONS should apply what it has learnt about collecting data during the pandemic to its long-term economic surveys

- 1.46 During the early stages of the pandemic, ONS used administrative data sources and new survey data to produce very timely indicators of economic performance. Many of the short-term indicators' contained in [ONS's Economic activity, faster indicators, UK](#) were produced using administrative data; including indicators on businesses' turnover using HMRC VAT returns. These indicators allowed data to be produced on a timely basis, to help policymakers understand the immediate impacts of the pandemic on the performance of UK business.

- 1.47 These statistics were also complemented by data gathered using new and existing surveys to understand the ongoing impact of the COVID-19.
- 1.48 The [Business Impact of COVID-19 Survey \(BICS\)](#), launched in March 2020, provided users with data on the impact of the pandemic on business operations, including the status of employees following the introduction of the UK Government's furlough scheme. The economic impact of the pandemic has also been captured via ONS's [Management and Expectations Survey](#), which includes information on business inputs, outputs, and prices.
- 1.49 The challenge of finding alternative ways to source data which would usually be acquired through surveys has demonstrated how statistical producers could change their business operations and innovate quickly to meet the information demands of users and economic policymakers. ONS was successful in meeting this short-term need and should use these successes as a platform to ensure that this same agility and innovation is introduced to improve its longer-term measures of economic performance. ONS should aspire to improve the timeliness and relevance of its ABS, in a similar way that it developed its online Labour Market Survey.
- 1.50 The survey response rate through the pandemic has been much lower than expected, running at approximately 50%, compared to around 75% in more usual years. The ABS team has been trying to use other more-accessible methods for respondents to provide their data, including the use of an editable pdf file. ONS estimates that approximately 3000 businesses have responded via this method during the pandemic. We commend the ABS team for seeking to ease the burden on its respondents and protect its pressurised response rate using these more-accessible tools.

## Current legacy systems are impeding innovation and improvement to the ABS data

- 1.51 We discussed the possibility of using alternative data sources with ONS, who noted that it has considered using HMRC Corporation Tax data and BVD commercial information to improve the timeliness of the ABS.
- 1.52 The ABS production system, however, does not allow for the addition of new data sources, or the linking of other survey data within its infrastructure. This has negated efforts to improve the breadth and depth of ABS data and its timeliness through the inclusion of new data sources, or data linking.
- 1.53 ONS must invest in the development of its production systems to provide a platform which is sufficiently flexible and agile to allow for the inclusion and linking of alternative data sources. Unfortunately, the development of the ABS system has not been able to attract sufficient investment priority within ONS's Transformation (Aries) Programme to enable the start of this work.
- 1.54 The constraint on system development, however, should not preclude ONS from establishing links with data suppliers able to provide data which can be used to reduce survey burden and improve data granularity and timeliness. ONS should tell its users its plans for sourcing data that will improve these aspects of the ABS product, such that when the ABS system is developed, ONS will be well placed to improve public value quickly.

## ONS needs to speak to a wide range of users and potential users to inform its statistical development

- 1.55 ONS engages with government users through its six-monthly [Annual Business Survey Group](#). The membership of the group comprises representatives from government departments, including BEIS, HMRC, Department for International Trade (DIT), Department for Digital, Culture, Media and Sport (DCMS) and the three devolved nations.
- 1.56 ONS's user engagement has focused on the needs of government users. It does not carry out the same level of engagement with users from academia, the private and the third sectors. ONS had planned to hold an event in March 2020 titled "Business Statistics and the modern economy" which included a wider range of stakeholders but due to the pandemic, this event was cancelled. It is encouraging to see that ONS is soon to run a UK Business Data User Conference. The conference is being jointly run by ONS and the UK Data Service and features academics from several UK universities focussed on business related research, covering topics such as productivity, investment, research and development, innovation, and business trade. It is also encouraging to note that representatives from the UK Data Service will be leading a session on how researchers can best gain accreditation for their research projects and thereby gain quicker access to ABS microdata, an issue which is discussed in more detail in para 1.61.
- 1.57 Engagement with representatives from the third sector and industry and professional bodies can offer new perspectives on the collection of inclusive and diverse data, information on the nature of business operations and management, and potentially offer the opportunities to link ABS data with industry survey information. It is important that ONS seeks to engage with the third sector as many third sector entities are not defined as "businesses" and as such there is a risk that engagement with and feedback from large components of this sector will be missed.
- 1.58 ONS invites users to [provide feedback](#) and to engage in discussion on data issues via its Business and Trade Statistics Community on the StatsUserNet Forum. There has been no recent activity on this forum and ONS should consider what value could be added by it taking a proactive lead in generating discussion about ABS statistics on this discussion channel.
- 1.59 Limited proactive user engagement and inflexible production systems have resulted in an absence of user-driven ABS development. We recognise the impact of the pandemic on the ABS team's capability to engage and collect the views of a wide range of users. However, it is important to note that users' interests will have shifted because of Brexit and the pandemic, particularly regarding the way in which businesses operate.
- 1.60 All the users we spoke to provided us with positive feedback on the service they had received from the ABS team. BEIS, DCMS and the Department for Environment Food and Rural Affairs said the ABS team is helpful and able to resolve queries or provide requested data in good time.

## Access to the UK Data Service

- 1.61 Some users we spoke to (the former Industrial Strategy Council whose responsibilities now lie within BEIS, DCMS, DIT, Cardiff Business School) rely on the ABS microdata available through the DSSL, rather than just the headline figures in the ABS bulletins and data tables. These users reported to us that obtaining

access to the ABS microdata for research purposes is a long and arduous task. One user told us that it had taken over 12 months to gain access.

- 1.62 Gaining ready access to microdata is important to researchers seeking to gain insight into, for example, the impact of Brexit and the pandemic on the location of capital and labour in the economy. The ABS team delivers data to the UK Data Service within a week of publication. However, delays in researchers' ability to access these data lead to the postponement of these valuable insights, which otherwise could be used readily in the design of economic policy. Difficulties in gaining access potentially displaces important research, such as analysis of policy decisions on the [employment dynamics of small and medium-sized enterprises](#), a key current consideration for the UK economy as it enters its post-pandemic recovery. Similarly, displacement of research examining the [impacts of labour market mismatch on UK output and productivity](#), during this period of significant dislocation of labour, would have profound effects on the targeting of economic policy through economic recovery.
- 1.63 As a matter of urgency, ONS must work with the UK Data Service to significantly improve the speed of access of researchers to ABS microdata via the DSSL.
- 1.64 OSR reported on this issue as part of last year's assessment of Business Demography Statistics where we noted that: "Improving access to IDBR data for users however is not a straightforward task. Before granting access to the data, ONS first must consider the confidentiality requirements of the Statistics of Trade Act 1947. Access to IDBR data can only be granted in writing to "competent authorities" to obtain "information necessary for the appreciation of economic trends and the provision of a statistical service for industry and for the discharge by government departments of their functions". The IDBR houses a wealth of untapped data, improved access to which would be of great benefit to the development, introduction, and evaluation of business and economic policy. In the longer term we would support any efforts ONS makes to review the legislation to reflect current access requirements."

## Clarity and Insight

- 1.65 The ABS bulletins are generally clear and easy to follow and supported by helpful graphics. They draw out key messages from the data and offer a degree of insight that is accessible for less-expert users. There is preliminary commentary on various trends including the comparison of indicators for each of the devolved administrations, and industries. Industry contributions to approximate Gross Value Added (aGVA) are shown clearly with graphs and analysis. There are opportunities to develop the commentary in the statistical bulletin, for example, by providing explanations for the differences in aGVA across regions. There are currently no international comparisons in the bulletin, which will be important in the medium term for gauging the impact of Brexit and the COVID-19 pandemic.
- 1.66 ONS publishes a detailed [technical report](#) and [quality and methods document](#) alongside the ABS statistics, which users identified as being helpful for understanding the context and quality of the data. However, there could be a clearer indication of the fitness for purposes of the statistics and their strengths and limitations with respect to various potential uses. We welcome ONS's commitment to review this.

## Quality

### Sample size

- 1.67 OSR's recent review of Business Demography statistics discussed the sizeable growth in the number of UK businesses since 2009. This increase is confirmed by the latest ONS Business Demography Statistics (for three of the last four reported years) and by BEIS's estimates of the [UK Business Population](#), indicating that the total number of private sector businesses (including unregistered businesses) stands at approximately 6 million. With an increasing business population and an increased demand for detailed data, ONS will need to consider, in the short-term, increasing the size of its survey sample to meet this need.
- 1.68 Since 1998, the Scottish Government has funded an enhanced ABS sample in Scotland, to improve the quality and accuracy of Scottish figures. In 2018, around 2,600 extra firms in Scotland were sampled, giving a total sample size in Scotland of around [8,300 firms](#).
- 1.69 By comparison the sample size for Wales in 2018 was [2,143](#). Given that Scotland has [77%](#) more private sector businesses than Wales (369,945 versus 208,830) this would suggest that Wales was under-represented.

### Sample design

- 1.70 The sampling frame for the ABS is the list of UK businesses on the IDBR. Businesses are added to the IDBR if they are: registered for VAT purposes with HMRC; registered for a Pay As You Earn (PAYE) scheme with HMRC or an incorporated business registered at Companies House. The IDBR covers businesses in all parts of the economy, except some very small businesses; the self-employed and those without employees, neither of which would be registered for PAYE, and those with low turnover, which are not registered for VAT; and some non-profit making organisations
- 1.71 There are 2.6 million businesses on the IDBR; covering nearly 99% of UK economic activity. It is used by government departments, including ONS, as the sampling frame for most business surveys.
- 1.72 Administrative data from these sources are supplemented by data from surveys such as BRES to keep information on the IDBR up to date. In 2015, the coverage of the [ONS Standard Business Survey Population](#) was expanded to include a population of solely PAYE-based businesses. This increased the population by approximately 92,000 businesses.

### IDBR Data uncertainty

- 1.73 OSR's Assessment Report of UK Business Demography Statistics noted several areas of uncertainty around the quality of business data held on the IDBR. The IDBR is used as the sampling frame for many ONS business surveys and the IDBR's quality issues therefore directly affect the quality of surveys such as the ABS. It is important that the ABS team understands these uncertainties and how they affect the quality of ABS data. The ABS team must work with the IDBR team to resolve these uncertainties.
- 1.74 The accuracy of the [Standard Industrial Classification \(SIC\) codes](#) on the IDBR relies on a full and accurate business description provided by the business and a consistent and accurate conversion of this to an appropriate SIC code. The IDBR is



a live database, and in the case where a business's activity changes, or its classification is updated following the selection of the ABS sample, there is a risk that such business activity is mis-represented in the sample. This risk is to a certain extent reduced by the ABS reclassifying businesses in its own database live environment.

- 1.75 ONS needs to quantify the impact of incorrectly classified businesses on the quality of ABS data. The ABS team must also work with the IDBR team to improve the accuracy of business data recorded on the IDBR.
- 1.76 Similarly, ONS should consider risks to the quality of ABS data arising from the uncertainty regarding the recording of business structures on the IDBR. BRES is used as the main source for updating multi-site business structures on the IDBR. BRES sample rotation and non-response, however, mean that the structures of large and medium-sized businesses are not always updated each year, so could be inaccurate.
- 1.77 The IDBR does not include unregistered businesses. Users of ABS data, including the ONS's National Accounts team, must make coverage adjustments to ABS data used in the GDP Supply and Use tables. Working in partnership with BEIS, and using alternative data sources, the ABS team should seek to gain a better understanding of the contribution of unregistered businesses to estimates of total business activity. The ABS team must work with the IDBR team to understand the impact of IDBR data quality issues on the quality of ABS data.

## Apportionment

- 1.78 Regional ABS aGVA estimates are produced at the level of [the UK's Nations and the Regions of England](#), and ONS provides analysis at lower levels by request. Data are collected in the ABS at the reporting unit level (which corresponds to a whole business, or a homogeneous subset of a business). These data are apportioned to produce the regional results. As a result, the regional results are less accurate than if the data were collected directly at local level
- 1.79 Employment information from BRES, which is collected at the local unit (site) level, is used to apportion national ABS data to use as the basis for regional estimates. The quality of sub-national data are therefore reliant not only on the quality of responses to ABS, but information about business size, industrial activity and structure on the IDBR being good quality. As described in para 1.72, business information is not updated comprehensively each year. There is no coverage of these quality concerns in ONS's published documentation, which undermines the quality of ABS estimates, as users are not well placed to understand their capability and useability across different uses. Below the "minimum domain level" (the threshold below which the number of returns in any given year makes the data too volatile to use for regional apportionment) [synthetic estimation](#) replaces actual data.
- 1.80 Given the quality concerns discussed at 1.73, and the increasing demand for more-detailed regional economic data, ONS must explain to users the short-term limitations on the use of apportioned regional data, until such time that it can quantify and improve on the estimates of business structure information. This work is crucial for meeting the short-term demand for more detailed data, whilst alternative data sources are discovered in the medium term to enhance measures of regional economic activity.

## Requirements and next steps

- 1.81 We have identified several ways the ABS needs to be improved to meet users' needs and to comply with the highest standards of the Code.
- 1.82 **Requirement 1** ONS needs to urgently prioritise investment in the development of its structural economic statistics, to ensure that the public good is served by them, and in particular to ensure that:
- a. The granularity and timeliness of the statistics are improved, and
  - b. The decline in the quality of official economic and business data highlighted in the Bean Review of economic statistics does not continue and is reversed.
- 1.83 **Requirement 2** ONS should continue, and develop, its current endeavours to establish what existing data – from administrative, private sector or other sources – could be used as the basis for its annual business statistics. These data have the opportunity to provide much more detail, more quickly and cheaply, with lower respondent burden than running a full survey. ONS should then determine what form of supplementary survey needs to be run to collect those data that are not already available from elsewhere (for example sub-national information), and develop ways to harness existing business data (for example use of accountancy software) or collect data more efficiently (for example through electronic questionnaires).
- 1.84 **Requirement 3** ONS must develop its understanding of the potential uses and value of ABS data, by engaging better with users both inside and outside of government, to ensure that as far as possible its annual business statistics are providing public value. ONS needs to understand what users require from ABS data and demonstrate how it is going to use feedback to inform a development plan for its structural economic statistics. ONS should reflect on the Government Statistical Service's User Engagement Strategy to assist in selecting the most appropriate methods for engaging with users.
- 1.85 **Requirement 4** ONS should provide clearer indications of the fitness for purpose of the ABS statistics and their strengths and limitations with respect to various potential uses. As part of this, ONS needs to understand and communicate to users the influence of IDBR data quality issues on ABS estimates, to ensure that users are well placed to understand the capability and useability of ABS estimates.
- 1.86 **Requirement 5** ONS should work more urgently with the UK Data Service to improve the access of researchers to ABS microdata. Improving access to this was also a Requirement (1b) of OSR's October 2020 Business Demography Assessment Report.
- 1.87 In addressing these requirements, ONS should seek to apply the same innovative and agile approaches it demonstrated in meeting the demand for short-term business data during the pandemic.
- 1.88 We expect ONS to publish a plan by the end of October 2021, which includes specific actions, deliverables and a timetable that explains how it will address the improvements identified in this report. The UK Statistics Authority will take advice from OSR based on ONS's progress against this plan to decide whether continued use of the National Statistics designation is merited.