



An Experimental Statistics Publication for Scotland

BUSINESS AND ENERGY

Business Impact of Coronavirus (COVID-19) Survey (BICS) Weighted Scotland Estimates - Data to Wave 12

16 September 2020

This is the first publication of weighted Scotland estimates using the Office for National Statistics' (ONS') Business Impact of Coronavirus (COVID-19) Survey (BICS). This publication focuses on businesses' responses on how their trading status and workforce status have been affected from Wave 7 to Wave 12 of the survey. The estimates are for businesses with a presence in Scotland and that have 10 or more employees.

These are experimental statistics, which means that they are still in development but have been released to enable their use at an early stage. All results are provisional and subject to revision.

Main findings for businesses with 10+ employees and a presence in Scotland

- The share of businesses 'currently trading' was estimated at 95.0% in the period 24 August to 6 September. This rate varied by industry sector – with lower rates for Arts, Entertainment & Recreation (estimated at 69.4%) and Accommodation & Food Services (estimated at 84.8%).
- The share of businesses with any staff on furlough leave was estimated at 67.2% in the period 10 August to 6 September.
- The share of the workforce on furlough leave was estimated at 15.0% in the period 10 August to 6 September. This rate varied by industry sector – with higher rates for Arts, Entertainment & Recreation (estimated at 57.5%) and Accommodation & Food Services (estimated at 34.4%).
- These results are provisional and are likely to be revised in the coming months as methods are further improved. A wider range of weighted estimates for Scotland will be available as part of the Wave 13 BICS Scotland release.

Introduction

The Office for National Statistics' (ONS') Business Impact of Coronavirus (COVID-19) Survey (BICS) is a new voluntary fortnightly business survey, which captures businesses' responses on how their turnover, workforce, prices, trade and business resilience have been affected.

Currently, the [Scottish BICS results published by the Office for National Statistics](#) are unweighted which means that we can only make inference about the businesses that have responded. Weighting the BICS responses enables us to produce estimates for Scottish businesses more generally, not just those that have responded. The ONS has provided the Scottish Government with the BICS microdata¹, which we have used to develop the weighted Scotland estimates. Annex A summarises the weighting method we have used for these early estimates and our plans for future developments.

Although the BICS runs back to March 2020 (Wave 1), the BICS sample was redesigned from Wave 7 to improve the coverage of smaller-sized businesses. However, for Scotland the number of survey responses from micro businesses (those with less than 10 employees) is still too low to provide a suitable base for weighting. Therefore the weighted Scotland estimates, in this publication, are for businesses with 10 or more employees. On the 14th of September, [the ONS published an article on weighted UK estimates](#) – note that the headline weighted UK estimates in the article include micro businesses, however [Section 7](#) of the article provides weighted UK estimates for businesses with 10 or more employees, which can be compared to the weighted Scotland estimates provided in this publication.

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 (e.g. shop, office, factory) in Scotland. In terms of the base of the estimates, for Wave 12, 5,318 businesses responded to the BICS UK-wide – 992 of these responding businesses had a presence in Scotland. Excluding the micro businesses takes the base for the weighted Scotland estimates down to 960 responding businesses in Wave 12. The weighted Scotland estimates are derived from results collected from UK businesses for the UK as a whole, but weighted by business counts or employment in Scotland. No account is currently being made for regional differences between business sites. We are considering this in more detail (see Annex A).

The coverage of the ONS BICS includes most sectors of the Scottish economy; however, the public sector is excluded, as is 'Section A – Agriculture, forestry & fishing', 'Section D – Electricity, gas, steam & air conditioning supply' and 'Section K – Financial & insurance activities'. The coverage includes the following Sections – however, note that although the data for Sections B, E, L, P, Q, S are included in the "All industries" totals – estimates for these individual Sections are generally suppressed due to low response.

¹ The BICS microdata can be accessed, by accredited researchers, via the [Secure Research Service \(SRS\)](#).

Industry Sections (based on the Standard Industrial Classification (SIC) 2007) included in the ONS BICS:

- Section B – Mining & quarrying
- Section C – Manufacturing
- Section E – Water supply, sewerage, waste
- Section F – Construction
- Section G – Wholesale, retail, repair of vehicles
- Section H – Transport & storage
- Section I – Accommodation & food services
- Section J – Information & communication
- Section L – Real estate activities
- Section M – Professional, scientific & technical activities
- Section N – Administrative & support services
- Section P – Education (*note private sector only*)
- Section Q – Health & social work (*note private sector only*)
- Section R – Arts, entertainment & recreation
- Section S – Other service activities

Reference periods

Businesses are asked for their experiences during a general reference period, so for example for Wave 12 the general reference period is 10 August to 23 August 2020. However, for some questions the business can respond from the point of completion of the survey questionnaire – for Wave 12 the survey completion period is 24 August to 6 September 2020. Some questions (like Trading Status) ask for the latest position and so the question reference period will be that of the survey completion period (24 August to 6 September 2020 for Wave 12). Other questions (like Workforce Status) ask for a response based on the last two weeks from the survey completion date and so the full question reference period can span from the start of the general reference period to the end of the survey completion period (10 August to 6 September 2020 for Wave 12). Table 1 below shows the general reference, survey completion and the Trading Status/Workforce Status reference periods for Waves 7 to 12.

Table 1 – Reference Periods, Waves 7 to 12

Wave	General Reference Period	Survey Completion Period	Trading Status Question Reference Period	Workforce Status Question Reference Period
Wave 7	1 June to 14 June 2020	15 June to 28 June 2020	15 June to 28 June 2020	1 June to 28 June 2020
Wave 8	15 June to 28 June 2020	29 June to 12 July 2020	29 June to 12 July 2020	15 June to 12 July 2020
Wave 9	29 June to 12 July 2020	13 July to 26 July 2020	13 July to 26 July 2020	29 June to 26 July 2020
Wave 10	13 July to 26 July 2020	27 July to 9 August 2020	27 July to 9 August 2020	13 July to 9 August 2020
Wave 11	27 July to 9 August 2020	10 August to 23 August 2020	10 August to 23 August 2020	27 July to 23 August 2020
Wave 12	10 August to 23 August 2020	24 August to 6 September 2020	24 August to 6 September 2020	10 August to 6 September 2020

Trading Status

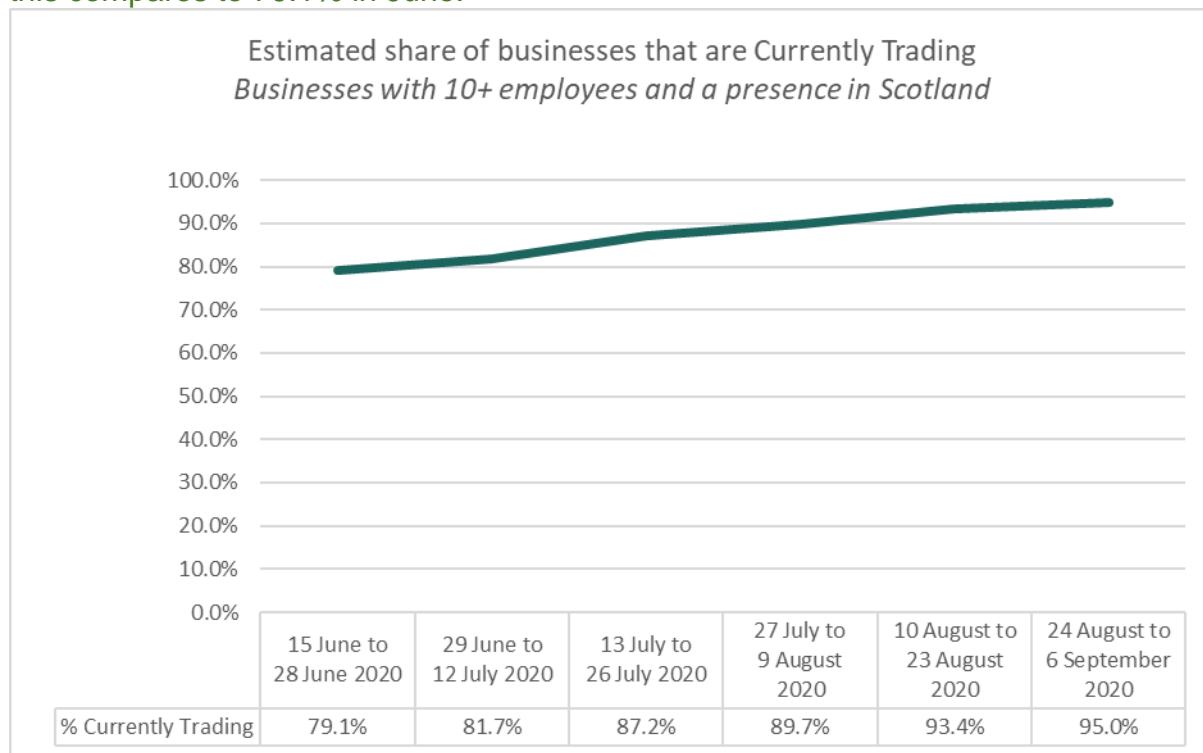
The BICS asks businesses about their trading status, the specific question² asked is shown below. Note that businesses were asked for their current trading status and so responses will be from the point of completion of the survey questionnaire (24 August to 6 September 2020 in Wave 12).

Trading Status Question: Which of the following statements best describes your business's trading status?

- Currently trading and has been for more than the last two weeks
- Started Trading within the last two weeks after a pause in trading
- Paused trading but intends to restart in the next two weeks
- Paused trading and does not intend to restart in the next two weeks
- Has permanently ceased trading

For presentational purposes, 'Currently trading and has been for more than the last two weeks', and 'Started trading within the last two weeks after a pause in trading' have been combined to 'Currently Trading'. And 'Paused trading but intends to restart in the next two weeks', and 'Paused trading and does not intend to restart in the next two weeks' have been combined to 'Paused Trading'. The breakdowns of these categories are available in the detailed data tables.

Figure 1: In the latest period, an estimated 95.0% of businesses were 'Currently Trading' - this compares to 79.1% in June.

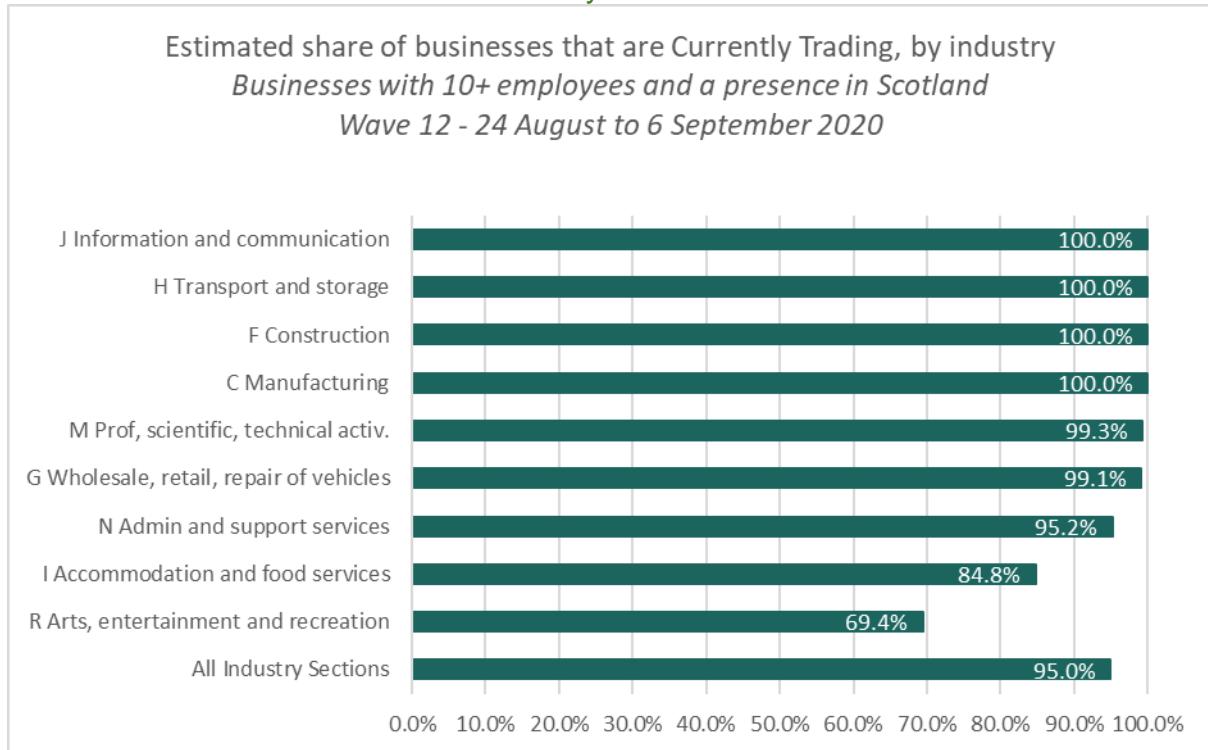


Source: Office for National Statistics – Business Impact of Coronavirus (COVID-19) Survey – Weighted Scotland Estimates – Wave 7 to Wave 12

² The ONS publish all the questions for each wave at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/businessimpactofcovid19surveyquestions/previousReleases>

Figure 2: In the latest period, the Arts, Entertainment & Recreation industry sector had the lowest share of businesses ‘Currently Trading’ (69.4%). This was followed by the Accommodation & Food Services industry sector at 84.8%.



Source: Office for National Statistics – *Business Impact of Coronavirus (COVID-19) Survey – Weighted Scotland Estimates – Wave 12*

Workforce Status

The BICS asks businesses, who have not permanently stopped trading (i.e. ‘Currently Trading’ or ‘Paused Trading’), about the status of their workforce - the specific question asked is shown below. Note that businesses were asked about the status of their workforce in the last two weeks and so responses will be from the point of completion of the survey questionnaire (24 August to 6 September 2020 for Wave 12) but can stretch back two weeks before this and so the full question reference period is 10 August to 6 September 2020 for Wave 12.

Workforce Status Question: In the last two weeks, approximately what percentage of your business’s workforce were:

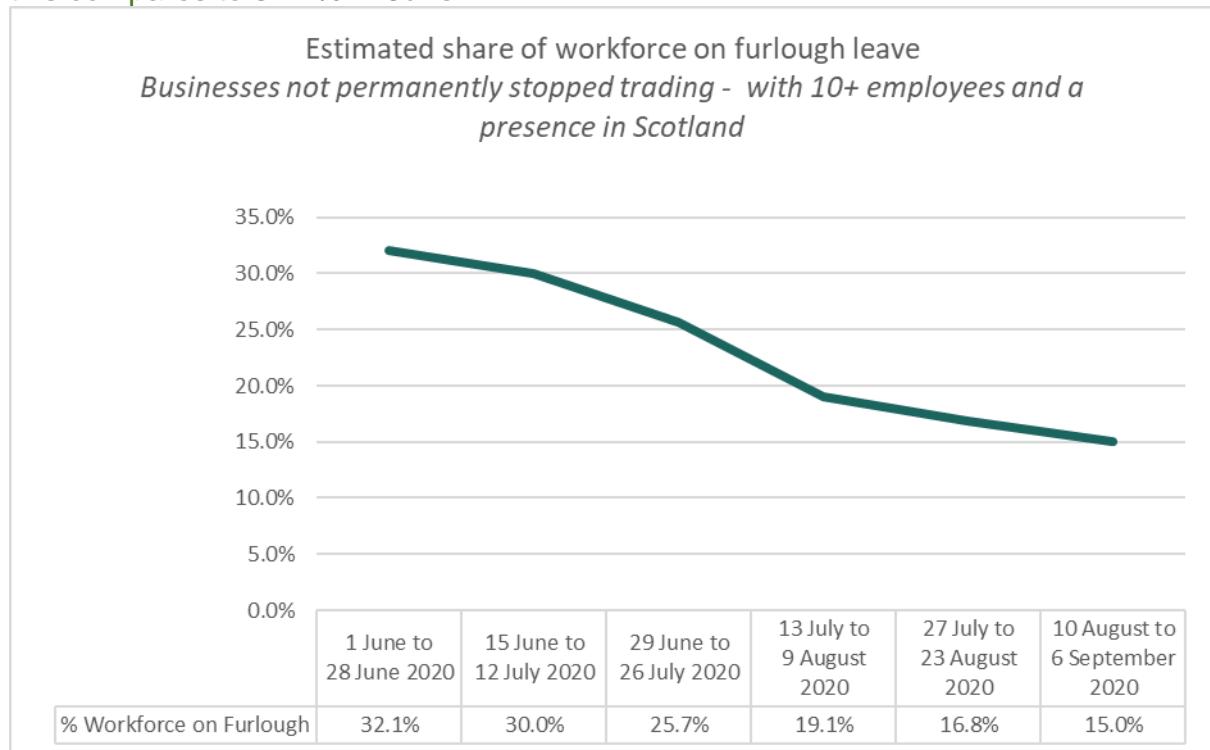
- On furlough leave
- Working at their normal place of work
- Working remotely instead of at their normal place of work
- Off sick or in self-isolation due to coronavirus (COVID-19)
- Made permanently redundant

In this report we focus on the furlough leave response, but all the breakdowns are available in the detailed data tables.

There are different ways that we can analyse the furlough leave response. One way to look at it is to estimate the share of businesses that have any of their workforce on furlough leave – an estimated 66.4% of businesses that were currently trading had some share of their workforce on furlough leave in the period 10 August to 6 September 2020. This share increases to 67.2% when we widen the base out to all businesses that have not permanently stopped trading (i.e. those ‘Currently Trading’ or ‘Paused Trading’).

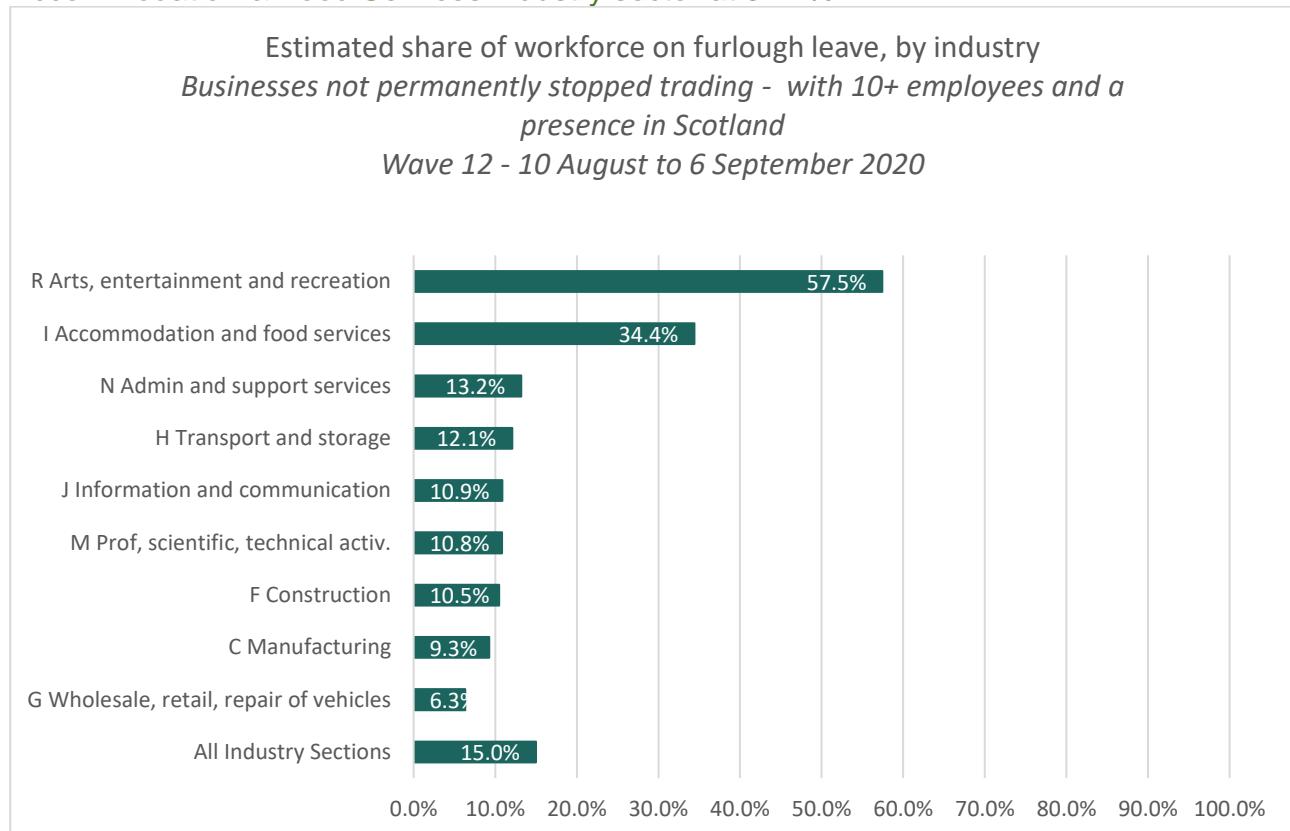
Another way to consider the workforce status question is to look at the share of the workforce that is furloughed. The workforce proportions are based on the responses provided by businesses. These are then applied to employment (in Scottish units) recorded for each reporting unit on the [Inter-Departmental Business Register \(IDBR\)](#). Then the data are weighted to ensure representativeness of the Scottish workforce in businesses with 10+ employees.

Figure 3: In the latest period, an estimated 15.0% of the workforce were on furlough leave - this compares to 32.1% in June.



Source: Office for National Statistics – Business Impact of Coronavirus (COVID-19) Survey – Weighted Scotland Estimates – Wave 7 to Wave 12

Figure 4: In the latest period, the Arts, Entertainment & Recreation industry sector had the highest share of workforce on furlough leave (57.5%). This was followed by the Accommodation & Food Services industry sector at 34.4%.



Source: Office for National Statistics – *Business Impact of Coronavirus (COVID-19) Survey – Weighted Scotland Estimates – Wave 12*

Annex A – Weighting Methodology

Current Weighting Process

The sample design for BICS was reviewed and refreshed for Wave 7 and went live on Monday 15 June and has been the basis for all waves since. Table 2 below provides an overview of the number of BICS responses, for businesses with a presence in Scotland, by business size for Waves 7 to 12. The universe is also provided – that is the population of businesses with a presence in Scotland, according to the Inter-Departmental Business Register as at March 2020.

Table 2 – Businesses with a presence in Scotland - BICS Responses and Universe by Business Size, Waves 7 to 12

Business Size	Number of BICS Responses						Universe
	Wave 7	Wave 8	Wave 9	Wave 10	Wave 11	Wave 12	
Micro - < 10 employees	33	28	36	31	41	32	
Small 10 to <50 employees	256	238	258	256	267	274	
Med 50 to <250 employees	230	234	240	245	278	240	
Large 250+ employees	548	531	501	473	499	446	
All	1,067	1,031	1,035	1,005	1,085	992	
Businesses with 10+ employees (micros excluded)	1,034	1,003	999	974	1,044	960	
							23,265

Note that the universe is restricted to the sectors covered by the BICS - and so the public sector is excluded, as is 'Section A – Agriculture, forestry & fishing', 'Section D – Electricity, gas, steam & air conditioning supply' and 'Section K – Financial & insurance activities'.

Table 2 shows that there is a very low response from micro businesses (business with fewer than 10 employees). Therefore, micro businesses have been excluded from our weighted Scotland estimates. For Wave 12, this meant that we had 960 responses to weight up to a population of 23,265 businesses with 10+ employees. In terms of jobs, these 960 responding businesses in Wave 12 accounted for 171,000 jobs to weight up to a business workforce of 1.45 million jobs (in businesses with 10+ employees).

We have developed a weighting system (for businesses with 10+ employees and a presence in Scotland) to correct for the bias in the response, which is skewed towards larger businesses and particular industry sectors. Business count and employment weights have been produced using a standard expansion estimation; whereby the weight applied is the ratio between the population size of a stratum (that is a group of business with same characteristics based on [SIC industry](#), employment size and Scottish jobs dominance). The weighting methodology that we have used for the weighted Scotland estimates is very similar to that discussed in this [ONS article on weighted UK estimates](#). However, we have only produced business count and employment weights – we have not produced turnover weights. We have used the business count weight for the Trading Status weighted estimates showing the share of businesses currently trading. We have also used the business count weight for the Workforce Status weighted estimates showing the share of businesses with staff on furlough leave. Whereas, we have used the employment weight for the Workforce Status weighted estimates showing the share of the workforce on furlough leave.

Impact of Weighting on Trading Status

Table 3 shows the proportion of businesses currently trading over time, comparing unweighted results with weighted estimates (using a business count weight).

The weighting has a slight downward impact compared with the unweighted proportion of businesses currently trading over time. This makes sense given that, for example, the weighting system gives more weight to smaller businesses (which are less likely to be currently trading).

Table 3 – Share of businesses Currently Trading (Business with 10+ employees and a presence in Scotland), unweighted and weighted

Wave	Unweighted %	Weighted %
Wave 7	86.1%	79.1%
Wave 8	88.1%	81.7%
Wave 9	93.0%	87.2%
Wave 10	94.9%	89.7%
Wave 11	97.0%	93.4%
Wave 12	97.3%	95.0%

Future Developments

Imputation - The weighted Scotland estimates published in this report do not include imputation, but work is ongoing to develop imputations for non-responding businesses with more than 250 employees. Imputation allows for a more representative estimate of these businesses, based on their response characteristics from other waves.

Multi-site cross border responders – The weighted Scotland estimates, published in this report, are for businesses that have a presence in Scotland. The weighted Scotland estimates are derived from results collected from UK businesses for the UK as a whole, but weighted by business counts or employment in Scotland. No account is currently being made for regional differences between business sites. From Wave 9 onwards there is a question in the BICS on where sites are paused or closed - we are considering how these data can be used to improve the weighting methodology for Scotland.

An Experimental Statistics Publication for Scotland

Experimental statistics are a subset of newly developed or innovative statistics undergoing evaluation. They are published to involve users and stakeholders in the assessment of their suitability and quality at an early stage.

The Office for Statistics Regulation publishes guidance on experimental statistics [here](#). The Scottish Government is developing these estimates on an ongoing basis, and is grateful to the ONS which has shared the BICS data.

We welcome any feedback on the development of these statistics, using the contact details below.

Correspondence and enquiries

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