

Scottish Employer Perspectives Survey (EPS) 2019 - Technical Report



CHILDREN, EDUCATION AND SKILLS





Scottish Employer Perspectives Survey 2019

Technical report

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IFF Research



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Introduction

The Scottish Employer Perspectives Survey

The Scottish Employer Perspectives Survey (EPS) is a large-scale survey of 2,650 employers in Scotland. It provides robust and reliable labour market information on how employers engage with the skills system in Scotland. This includes how employers recruit new staff, their perceptions of new recruits (including young people and education leavers), their engagement with training providers and their offering of work placements and apprenticeships.

This is the inaugural Scottish EPS, however the survey has emerged from a UKwide EPS series which was conducted biennially every other year starting since 2010.1 Thus there exists a long time-series for many of the key measures included in the Scottish EPS. The Scottish EPS sits alongside the Employer Skills Survey (ESS) which was last carried out at a UK-wide level in 2017 and focuses on employers' skills demands, skills shortages and training within organisation.

IFF Research was commissioned by the Scottish Government to carry out the research for the Scottish EPS 2019. The design and execution of the research was overseen by a Research Advisory Group (RAG) convened by the Scottish Government, including officials representing: the Scottish Government, Skills Development Scotland (SDS) and the Scottish Funding Council (SFC).

Structure of this report

This technical report provides background information on the methodology used for carrying out the Scottish EPS. It is divided into six chapters, each considering a different area of survey design and methodology in detail:

- **Sample design:** detailing the method by which employers were selected to take part in the research, including the setting of quota targets and sample volumes;
- Questionnaire design: detailing the considerations taken into account in the design of the questionnaire, including comparability with previous UK-wide EPS surveys, new question areas for EPS 2019, and the methods by which the survey was tested and refined to ensure high quality data collection;
- **Fieldwork:** providing a detailed overview of how the interviews were carried out, quality control procedures, and the levels of response achieved;
- Coding: explaining how verbatim responses to survey questions were classified for analysis;

¹ The last UK-wide EPS was carried out in 2016, principally commissioned by the Department for Education. Earlier editions of the UK-wide EPS were principally commissioned by the UK Commission for Employment and Skills (UKCES).

- Weighting: detailing how the survey responses were processed to ensure that the resulting dataset was representative of the population of businesses in Scotland; and
- **Using the data:** considering the reliability and margins of statistical error of figures produced from the dataset.

Sample design

This chapter outlines the sample design adopted for the Scottish EPS, detailing the method by which employers were selected to take part in the research, including the setting of quota targets and sample volumes.

Sampling population and survey sampling unit

The sampling population used for the Scottish EPS encompassed establishments across the full geographical spread of Scotland, in all sectors of the economy (across the commercial, public and charitable spheres). All Scotland establishments with **two or more people working at them** (including partners and working proprietors) were eligible for the survey – i.e. establishments with a single person on the payroll were excluded. The 2018 Inter-Departmental Business Register (IDBR) was used as the universe data defining the population of employers in Scotland.

Establishments were used as the sampling unit for the survey, as opposed to an organisation-based approach. The term "establishments" denotes specific **individual sites or premises**; thus if an organisation had several sites it was possible that more than one of these sites were in the sample. This approach was chosen because it is at the establishment level where respondents are most likely to be able to provide a detailed and accurate picture of how employers go about meeting their skills needs. Decisions around training staff are often based on the training offer available in the local area, while recruitment also tends to occur at a more localised level. This approach has been used in the EPS series at a UK level, and its sister survey, the Employer Skills Survey (ESS), since each series began.

Since 2012, both the UK EPS and ESS surveys have considered establishments with two or more people working at their site in scope. The rationale for this is based on both practical and conceptual considerations, discussed below.

From a conceptual viewpoint, the focus of the skills surveys is on the workforce, and as such any establishment covered logically needs to have staff (or the desire / potential to employ staff in the future). In this Scotland specific iteration of the survey, the survey covered employers' approaches to recruiting (particularly young people and education leavers), their engagement with apprenticeships and their facilitation of training staff to Vocational Qualifications. Findings from the survey can then be used to enhance employers' engagement with, and experience of, various recruitment and people development initiatives. Accordingly, the survey was aimed at those for whom such initiatives carry relevance (i.e. establishments with at least one employee).

On a more practical level, however, it tends to be much easier for survey respondents to think in terms of the overall 'headcount' for their site – including both working proprietors and employees – than to split out the two groups (particularly when the lines between the two are not clear-cut). For example, it is typically easier for employers to answer about recruitment channels for all managers / staff, rather than 'only those managers who are not working proprietors'.

The survey also excluded the self-employed (with no employees), as the question approach / context for this group would need to be somewhat different, since they are by definition not "employers". Additionally, there is an absence of robust population figures for this group, providing obstacles for robust and representative sampling and weighting.

Sampling approach and setting quotas

The sampling strategy adopted for the Scottish EPS was based on the approach taken for the most recent UK EPS in 2016.

The sampling approach taken for Scottish EPS was as follows:

- Target interviews were stratified against a two-dimensional sector by size grid (12 sectors and seven sizebands) on an interlocking basis;
- The initial allocation of interviews was done according to employer sizebands, using a set of ratios that deliberately over-sampled larger employers;
- Interviews were then allocated to sector within each sizeband in proportion to their representation within the business population; and
- The starting sample was then drawn from the commercial data supplier, Market Location.

Keeping the approach consistent with UK EPS 2016 preserves the ability to carry out time series analyses and maintain comparability with other nations of the UK should they commission their own versions of EPS.

Using business population figures from the IDBR, the sample was stratified by establishment size and industrial sector on an interlocking basis in order to ensure robust coverage of the full range of business types in all parts of Scotland.

Quotas by size band

Seven employment size bands were used: 2-4, 5-9, 10-24, 25-49, 50-99, 100-249 and 250+.

A purposive approach was taken to sampling by size band, as shown in Table 1, in order to maximise the yield of interviews among larger establishments while seeking to limit the level of skew away from the true population.

This ensured that findings would be representative of large establishments which employ a large proportion of the workforce, whilst balancing this with a need to ensure that the level of weighting needed across the smaller size bands did not impact the robustness of the data.

To have allocated interviews by size band in proportion to the true population of establishments would have produced an interview profile dominated by smaller establishments, with a very small proportion of large establishments.

Table 1 Interview targets by size band

Size Band	Scottish population*	Proportional distribution	Targeted interviews	% of total interview target
2-4	76,000	50%	714	27%
5-9	34,300	23%	610	23%
10-24	24,800	16%	583	22%
25-49	8,500	6%	345	13%
50-99	4,200	3%	159	6%
100-249	2,300	2%	159	6%
250+	1,000	1%	80	3%

^{*}Source: Inter-Departmental Business Register, 2018. Rounded to the nearest 100.

Quotas by sector

After setting interview targets by size band, interviews were then allocated to sectors within each size band in proportion to their representation within the business population, as shown in Table 2.

The only exception to the setting of sector quotas in proportion to the business population was the Financial Services sector. The quota target for the Financial Services sector was boosted from 56 to 100 (a similar number of interviews achieved for Scotland in UK EPS 2016), due to the sector's relative importance to Scotland's economy. To apply this boost, the additional interviews were distributed in line with the size population of the Financial Services sector (e.g. establishments employing 2-4 staff accounted for 49% of the Financial Services population according to the IDBR, hence 49% of the additional Financial Services interviews were assigned to this size band). To preserve the overall size targets these additional interviews were subtracted from the interview targets originally set for Business Services given its similarity to the Financial Services sector (i.e. proximity in SIC codes) and given that it is one of the largest sectors therefore having fewer interviews would have minimal impact on its confidence interval.

Table 2: Final interview targets by sector within size band

	2-4	6-9	10-24	25-49	50-99	100-249	250+	Total
Primary Sector & Utilities	58	28	17	7	4	5	4	123
Manufacturing	29	26	31	21	14	17	9	147
Construction	77	46	35	19	9	8	4	198
Wholesale & Retail	117	154	130	56	21	23	9	510
Hotels & Restaurants	58	79	91	49	13	9	2	301
Transport, Storage & Comms	50	30	31	23	13	13	7	167
Financial Services	34	26	18	9	3	4	6	100
Business Services	161	87	76	40	21	23	10	418
Public Administration	8	10	17	16	9	13	10	83
Education	9	13	28	41	17	17	6	131
Health & Social Work	35	52	72	45	28	21	11	264
Arts & Other Services	78	59	37	19	7	6	2	208
Total	714	610	583	345	159	159	80	2,650

Quotas by region

Interviews were allowed to fall out 'naturally' by geography. For the analysis and reporting Regional Outcome Agreement (ROA) areas have been used (how the ROAs are defined in terms of Local Authority is presented in Appendix E). The expected distribution by ROA is shown in Table 3 (the 'expected 'fall out' of interviews' column, these numbers calculated by multiplying the ROA distribution within the population by the target overall sample size). This expected distribution was felt to provide relatively robust base sizes for regional analyses. The final column shows the actual (unweighted) distribution of interviews by ROA, which is reasonably close to the expected distribution.

Table 3 Expected (and actual) interview distribution by region²

Region	Scottish population*	Proportional distribution	Expected 'fall out' of interviews	Actual achieved interviews (unweighted)
Aberdeen & Aberdeenshire	17,200	11%	297	313
Ayrshire	9,200	6%	159	167
Borders	4,300	3%	72	103
Dumfries & Galloway	5,900	4%	95	111
Edinburgh & Lothians	19,800	13%	360	334
Fife	8,700	6%	154	150
Forth Valley	7,500	5%	133	137
Glasgow	21,000	14%	382	275
Highlands & Islands	19,300	13%	323	432
Lanarkshire	16,800	11%	299	245
Tayside	12,100	8%	209	233
West	9,400	6%	170	143
West Lothian	4,100	3%	72	61

*Source: Inter-Departmental Business Register, 2018. Rounded to the nearest 100.

Sample source

Market Location – a commercial data supplier – was used as the sample source for the Scottish EPS. Market Location was the main sample source for the most recent UK-wide EPS and ESS surveys. Sample was ordered from Market Location at an average sample-to-target ratio of 8:1 against each target cell. Due to the availability of sample (i.e. in certain cells it was not possible to order at an 8:1 ratio) this varied between quota cells; from 4:1 in Constrution 250+ to 11:1 in Financial Services 50-99.

A total of 21,500 records ordered from Market location were loaded for fieldwork.

All sample records were postcode-validated to ensure that geographical regions had been correctly assigned.

² Note that the number of interviews sums to greater than 2,652 as ROAs are defined by Local Authorities (LA), and some LAs are in more than one ROA. Also note that the population data are rounded to the nearest 100.

Checks were also undertaken in instances where duplicate telephone numbers existed within the sample. In certain sectors, such as retail and finance, it is common for different establishments to appear under the same centralised telephone number. Such establishments were marked up on the sample – with the address of the sampled establishment displayed on-screen – so that interviewers would be aware that the telephone number they were calling was a centralised switchboard and thus they would need to request to be transferred to a particular site.

Questionnaire Design

The UK EPS 2016 questionnaire (minus questions that were only relevant to England, Wales and Northern Ireland) was used as the basis for the Scottish EPS questionnaire. Following a review of the UK EPS 2016 questionnaire by the RAG, additional content was developed. The additional content was tested in the pilot stage, and retained, amended or removed accordingly.

These areas of questionnaire development are detailed below. A full list of the changes between the questionnaires used in UK EPS 2016 and the Scottish EPS is provided in Appendix A.

The full Scottish EPS questionnaire is published alongside this technical report on the Scottish Government website.

Development of new questions

This section details the new questions developed for the Scottish EPS. Not all of the new questions were carried through to the mainstage (following piloting), but are detailed here to potentially inform development of future iterations of the survey.

Monitoring of equality and diversity in recruitment practices (C5a-g)

Following question C5, at which respondents are asked about factors their establishment looks for in candidates, a series of questions about the monitoring of equality and diversity in recruitment practices were added. The purpose of these questions was to determine the extent to which employers engaged in and were aware of practices related to the promotion of equality and diversity, such as collecting monitoring information, "positive action", "blind" or "no name" recruitment, and flexible working arrangements. Following pilot testing, question C5f ('For the vacancies you've had in the last 12 months, has your establishment taken any action to try to encourage a wide range of applicants by age, disability, gender, race, religion or sexual orientation?') was removed, as respondents in the pilot seemed unwilling to answer 'no' here. Instead, C5g was amended to ask the question in a more open-ended way: 'When recruiting, how, if at all, does your establishment try to encourage a diverse range of applicants by characteristics such as age, gender, disability, race, religion or sexual orientation?'

Awareness and impact of Gender Pay Gap legislation (C10GP-GPi)

Following the section of questions on the recruitment of young people ending with question C10nwi, two questions were added to gauge the awareness of the Gender Pay Gap legislation, and to assess what impact the legislation had had on employers' recruitment practices. As the legislation was implemented in April 2017, this was the first opportunity for an EPS to cover its impact.

Recruitment of people who had undertaken a Modern Apprenticeship with another employer (C10H-J, D34B)

Three new question were added – C10H to C10J – asking about recruitment of people who had undertaken a Modern Apprenticeship (MA) with another employer

and how prepared for work these recruits were. These questions were intended to act as a comparator to the preceding questions which ask about recruitment and work preparedness of education leavers from school / college / university. In the pilot, it was only possible to test C10H ('Still thinking about the last 2-3 years, has this site taken on anyone who has completed a Modern Apprenticeship with another employer?') as none of the employers answered 'yes' to this question (and the other two questions were routed off a 'yes' answer to C10H). As a result, C10H and C10J ('In what ways have they been poorly prepared?') were removed, and a slightly amended version of C10I ('Thinking of those recruits who had completed a Modern Apprenticeship, in relation to their preparedness for work would you say that they were...?') was moved to sit with other apprenticeship-related questions in the Apprentices section (question D34B).

Awareness and use of Foundation Apprenticeships (C21-21A)

Two new questions were added to the Work Experience / Inspiration section asking about awareness and use of Foundation Apprenticeships (FAs) for work placements. As FAs were rolled out from August 2016, this was the first opportunity for an EPS to cover employer engagement with them.

Awareness of and engagement with Developing the Young Workforce (DYW) Regional Groups (C28-29)

Two new questions were added to the Work Experience / Inspiration section asking about awareness of Developing the Young Workforce (DYW) Regional Groups, and whether employers had engaged with DYW Leads or Regional Groups regarding work placements and work experience. As the DYW Regional Groups were only fully established in June 2017, this was the first opportunity for an EPS to cover employer awareness of and engagement with them.

Interactions with DYW Leads / Regional Groups (C30)

A further question that was added following the DYW questions above, asking about interactions respondents had had with their local DYW Lead or Regional Group (if they said they have had some engagement at C29). This question was included in the pilot purely to sense check employers' answers regarding their engagement with DYW Regional Groups. Pilot answers at C30 provided reassurance that respondents had confidence in their answers at C28 and C29, and as such it was decided that C30 was no longer needed, and was removed from the mainstage questionnaire.

Whether apprentices are on a Graduate Apprenticeship programme (D22Bi)

A question was added to the Apprenticeships section to gauge the extent to which apprentices were enrolled on Graduate Apprenticeship (GA) programmes, reflecting the Scottish Government's policy goal of making GAs an embedded part of Scotland's skills landscape by 2020.

Whether partnered with external institutions to design the content of training (D39a)

A question was added to the Employer Involvement in Content and Design of Training section, to find out what organisations, if any, employers worked with to

design the content of training they offered to employees and apprentices. Options included working with a school or college, working with a university, working with a different training provider, and working with a DYW Lead or Regional Group.

Pilot testing

A full pilot of the questionnaire was carried out between 15 to 18 January 2019 in order to test new questions added and assess questionnaire length. The intended average survey length for mainstage fieldwork was 20 minutes.

Overall 20 pilot interviews were completed with employers in Scotland. Interviews were conducted with employers throughout Scotland, with a reasonable spread of interviews achieved by size and sector.

The average interview length for the pilot was just over 23 minutes, thus requiring approximately 3 minutes of cuts to reduce it to the required length. While the survey was long, it flowed well and employers were for the most part comfortable with the questions being asked.

The pilot identified questions that could be removed for higher priority areas, as well as helping to refine particular questions. Appendix B documents all the details on deletions, as well as modifications and additions from the 2016 UK-wide EPS.

Question coverage in Scottish EPS and impacts on time series analysis

The final questionnaire used in mainstage fieldwork drew on findings from pilot fieldwork, and also sought to reduce survey length to an average of 20 minutes. While changes have been made to the survey, care has been taken to ensure time series analysis is still possible across a range of measures.

Table 4 shows each section used in Scottish EPS 2019, and documents whether time series comparisons with EPS 2016 are appropriate; where questions have been revised, comparisons are often still possible due to only minimal changes being made. Appendix B contains a similar table, but detailing each question.

Table 4: Sections covered in Scottish EPS questionnaire and the potential for time-series analyses

Section	Questions	Time series possibility
Firmographics (i) (e.g. size, sector)	A1-A8	Yes
Approach to recruitment	C1-C5, C6A-E	Yes
Recruitment practices to increase equality and diversity	C5A-G, C10GP-GPI	No
Recruitment of young people	C8-C10NWII	Yes

Recruitment of education leavers	C10A-G	Yes
Work experience and inspiration	C17-C29	Some
Sources of training information and advice	D1-D5	Yes
Training activity	D6A-D8, D36	Yes
Training to VQs	D13-D17	Yes
Apprenticeships	D22-D35C	Some
Employer involvement in content and design	D39-D41	Some
National Occupational Standards	D20-D21	Yes
Firmographics (ii) (e.g. growth prospects, employment change)	F1-F3	Yes

Questionnaire timings

The average overall interview length of the mainstage survey was 22 minutes, although this varied widely between different employers depending on their level of engagement with initiatives, services and activities. The minimum length was just under 10 minutes, and the maximum over 56 minutes.

As might be expected, interviews with larger establishments took longer on average given that they are more likely to have engaged with the skills system and to have used more services / initiatives. Table 5 details average interview length by size band.

Table 5 Average interview length by size band

Sizeband	Average interview length (mm:ss)
2-4	18:25
5-9	21:01
10-24	22:22
25-49	24:40
50-99	25:28
100-249	28:16
250+	30:48
	4 —

Fieldwork

Fieldwork for the survey was undertaken between February and April 2019, involving 2,652 telephone interviews. Interviews were conducted with the most senior person at the site with responsibility for recruitment, human resources and workplace skills.

The survey achieved a strong overall conversion rate of 44%, slightly higher than the 41% achieved in UK EPS in 2016. Sector and size band targets were met across almost all quotas.

Data collection methodology

A total of 2,652 interviews were conducted by telephone using computer-assisted telephone interviewing (CATI) systems. Fieldwork took place between February and April 2019.

Establishments were not pre-notified that they would be called for the survey, partly due to financial considerations and partly because it was felt that this could lead to a reduction in response rates owing to head offices potentially opting out for all of the establishments in their organisation. An exception was made for certain large banks, where head offices were contacted by members of the Scottish Government team prior to the survey commencing in order to obtain telephone numbers at branch level for establishments included in the sample drawn. This approach was taken as the original telephone numbers supplied in the sample directed interviewers to call centres from where, based on past experiences of the EPS and ESS, it has proved particularly challenging to reach individual branches.

All interviewers were provided with a detailed briefing on the questionnaire design, the aims of the research, and background of the project and the organisations involved. These briefings paid particular attention to the screener section of the questionnaire to ensure the correct respondent was reached. They also focussed on suitable prompts to use for the SIC question and explored the necessary level of detail required at this question.

The survey process was monitored throughout to ensure a high quality of interviewing, whereby all interviewers were monitored by IFF's Quality Control team at least once, and at least 5% of interviews were monitored.

Interviews were conducted with the most senior person at the site with responsibility for recruitment, human resources and workplace skills. Reassurances were provided to respondents prior to the survey, including confirmation that data would be reported in aggregate form and in a way that would not allow them or their organisation to be identifiable. If after the first contact the respondent or gatekeeper wanted more information about the survey a reassurance email was sent (see Appendix D for a copy of the reassurance email). Employers were asked at the end of the survey whether they would like to receive a summary report of the survey findings via email once the results were published (41% of employers requested to be emailed the summary report).

Response rates

The survey received an overall response rate of 44%, slightly higher than the UK EPS response rate of 41% achieved in 2016. Table 6 breaks down the sample outcome and response rate for Scottish EPS 2019. Response rate was calculated as the number of achieved interviews as a proportion of 'total complete contacts', where a final outcome was reached with the establishment (this includes those respondents who completed the interview, refused to take part or quit during the interview).

Table 6: Sample outcomes

Sample outcome	Number of contacts	% of all sample	% of complete contacts
Total issued sample	21,318	100	
Ineligible establishments (e.g. sole traders)	727	3	
Unavailable during fieldwork/out of quota/ongoing or live sample	12,447	58	
Unobtainable/invalid numbers	2,093	10	
Total complete contacts	6,051	28	100
Achieved interviews	2,652	12	44
Respondent refusal	2,357	11	39
Quits during interview	285	1	5
Company policy refusal	757	4	3

Regular adjustments were made to the balance of establishments contacted to ensure an even distribution of interviews with employers from different sectors and size bands throughout the fieldwork period. Sample was loaded into fieldwork in proportion to quota targets so that quota progression was as even as possible, and to ensure employers were called and re-called at suitable points without being overcontacted.

As is usual with surveys of this kind, there were certain types of employers with whom it proved more difficult to achieve interviews and so various methods were employed to help improve response rates among these employers. For example, calls were often made to Construction and Agriculture establishments outside of normal business hours (before 9am and after 5pm) as their work is typically site / outdoor based rather than carried out near a telephone.

An average sample-to-target ratio of 8:1 against each target cell was set. Due to the availability of sample (i.e. in certain cells it was not possible to order at an 8:1 ratio) this varied between quota cells; from 4:1 in Constrution 250+ to 11:1 in Financial Services 50-99.

Across all sector and size band targets quotas were met or close to being met. A minority of sector quotas within the 2-4 size band were not met, generally due to lower volumes of available sample, for example within the Construction sector within the 2-4 size band in which a 4:1 sample ratio was order compared to an overall sample ratio of 8:1.

Coding

Approach to recording verbatim responses

Open ended responses to the survey were coded by IFF Research's internal coding team. To ensure consistency, a formal codeframe was developed and regularly reviewed during development by the research team. In addition, the application of the codeframe in practice was monitored through quality control checks, to ensure a high level of accuracy of codes assigned to verbatim responses. Table 1 in Appendix C details the questions for which coding was required.

Sector classifications

Where respondents did not agree with the classification of their establishment, they were asked to give a description of the organisation's activities, using an approach developed by IFF over multiple surveys. The data was coded to 4-digit Standard Industrial Classification (2007), and subsequently grouped into the sector categories used for analysis and reporting. In total, just over one in five respondents (21%) disagreed with the classification of their establishment.

The table below shows the 12 sectors and their corresponding SIC 2007 definitions.

Table 7 SIC definitions

Sector	SIC 2007
Primary sector and Utilities	A - Agriculture, forestry and fishing (01-03) Including farming, hunting and other related service activities, forestry and logging, fishing and aquaculture
	B - Mining and quarrying (05-09) Including mining of coal, metals, sand/stone/clay, and extraction of crude petroleum and natural gas
	D - Electricity, gas, steam and air conditioning supply (35) E - Water supply, sewerage, waste management and remediation activities (36-39)
	Including electric power generation, transmission and distribution, manufacture of gas and distribution of gaseous fuels, steam and air conditioning supply, water collection, treatment and supply, sewerage and waste collection, treatment and disposal activities and materials recovery
Manufacturing	C - Manufacturing (10-33)
	Including manufacture of food and beverages, textiles, chemicals and chemical products, basic pharmaceutical products, other mineral products, manufacture of metals and metal products, machinery, computer and electronic products and equipment, motor vehicles and other transport equipment, furniture, and repair and installation of machinery and equipment
Construction	F - Construction (41-43)

	Including the construction of buildings, civil engineering (constructing roads, railways and other utility projects), demolition, and specialised activities such as electrical installation, roofing and scaffold erection
Wholesale and Retail	G - Wholesale and retail trade; repair of motor vehicles and motor cycles (45-47)
	Including sale, maintenance and repair of motor vehicles, parts and accessories, nonvehicle wholesale (for example agriculture, food, household goods), and the retail trade of all products whether in stores, stalls, markets, mail order or online
Hotels and	I - Accommodation and food service activities (55-56)
Restaurants	Including hotels, campsites, youth hostels, holiday centres, villages and other short stay accommodation, restaurants and takeaways, event catering and licensed clubs, pubs and bars
Transport and Communications	H - Transport and storage (49-53)
Communications	Including land, water and air transport (passenger and freight), warehousing and support activities for transportation, postal and courier activities.
	J - Information and communication (58-63) Including land, water and air transport (passenger and freight), warehousing and support activities for transportation, postal and courier activities, publishing (books, journals, newspapers etc. and software/computer games), television, film and music production, broadcasting, telecommunications, computer programming and consultancy, information service activities (e.g. data processing and hosting)
Financial	K - Financial and insurance activities (64-66)
Services	Including banks and building societies, activities of holding companies, trusts, funds and similar financial entities, credit granting, pensions, insurance and reinsurance
Business services	L - Real estate activities (68)
301 11003	M - Professional, scientific and technical activities (69-75)
	N - Administrative and support service activities (77-82)
	Including the buying, selling and renting of real estate, legal activities, accounting, bookkeeping and auditing, management consultancy, architectural and engineering activities, scientific research and development, advertising and market research, specialist design, photographic activities, translation and interpretation, veterinary activities, renting and leasing of tangible goods (motors, household, machinery), employment agencies, travel agencies and tour operations, security and investigation activities, office administration and business support

Weighting

The survey data were weighted and grossed up to the population of establishments in Scotland employing two or more people. The source of the population data used for weighting the survey was the March 2018 release of Inter-Departmental Business Register (IDBR) statistics; the latest available at the time.³

Weighting was based upon size and sector, the same classifications used in sampling the survey (a 12 sector by 7 sizeband grid).

An employment-based weight was designed for use when analysing the number of work placements that employers reported having over the past 12 months, as well as the average number of current apprentices. This weight was created using the same structure and source as the unit weight.

The weighting approach adopted, and described above, was the same as that used for weighting Scotland data in the UK EPS 2016. This approach preserves the ability to conduct robust time series analyses.

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³ The initial counts provided were incorrectly based on employees not employment. Although establishments with one owner or working proprietor but no employees were correctly excluded, those with one employee but no owners or working proprietors were incorrectly included if they were part of a chain, while those with two (or more) owners or working proprietors but no employees were incorrectly excluded. As a result the population counts from IDBR had to be rerun. The net effect was minimal with around eight thousand incorrect exclusions but almost the same number of incorrect inclusions, and the total number of eligible establishments fell slightly from 151,400 to 151,168. However, there were quite large differences within size band, and the number of establishments with employment of 2-4 in the correct, re-run data (75,977) was lower than in the first run of the data (80,403). This was accompanied by an increase in those within the 5-9 category.

A useful check to reduce the risk of this mistake happening is to request unit and employment counts for small employers by the individual employment size number (i.e. those employing two people, those employing three, those employing four), rather than at the grouped 2-4 size band category. The employment figure for those establishments with employment of exactly two should be twice the number of establishments, and so on, and if not it is likely that the figures show employee figure not employment.

Using the data

Statistical accuracy of survey data

The table below shows sampling error for the survey results overall and for key sub-groups by which analysis is presented in the report. Figures have been based on a survey result of 50% (the 'worst' case in terms of statistical reliability), and have used a 95% confidence level. Where the table indicates that a survey result based on all respondents has a sampling error of +/- 0.7%, this should be interpreted as follows: 'for a question asked of all respondents in this group where the survey result is 50%, we are 95% confident that the true figure lies within the range 49.3% to 50.7%'.

The calculation of sampling error has taken into account the finite population correction factor to account for cases where we are measuring a significant portion of the population universe (i.e. even if two sample sizes are the same, the sampling error will be lower if in one case a far higher proportion of the population was covered).

Table 8 Sampling error (at a 95% confidence level) associated with findings of 50%, by size and sector

Subgroup	Number of interviews achieved	Population	(Maximum) sampling error (+/-)
Overall			
Scotland	2,652	151,200	1.9
Size			
2 to 4	643	60,000	3.8
5 to 9	608	31,200	3.9
10 to 24	619	23,900	3.9
25 to 49	364	8,400	5.1
50 to 99	161	4,200	7.6
100 to 249	172	2,300	7.2
250+	85	1,000	10.2
Sector			
Primary Sector and Utilities	140	6,300	8.2
Manufacturing	180	6,400	7.2
Construction	200	10,800	6.9

Wholesale and Retail	540	25,800	4.2
Hotels and Restaurants	310	14,800	5.5
Transport, Storage and Communication	169	8,600	7.5
Financial Services	97	2,600	9.8
Business Services	420	26,500	4.7
Public Administration	83	2,700	10.6
Education	132	4,400	8.4
Health and Social Work	272	10,700	5.9
Arts and Other Services	209	11,400	6.7

Explaining variation between sub-groups in the report

Table 8 highlights the number of interviews achieved across the entire sample. However, a number of measures captured in the survey are based only on a subsection of the survey. For instances, questions regarding the provision of external training are only asked of those establishments who made use of external training providers to train their staff (2,167 unweighted establishments). Table 9 presents common base sizes across the survey, split by size band. Lower numbers of interviews achieved serve to increase the maximum sampling error as shown in Table 8.

Table 9 Interviews achieved across key measures and by size band

Base measure	Total	2 to 4	5 to 9	10 to 24	25 to 49	50 to 99	100 to 249	250+
All employers	2,652	643	608	619	364	161	172	85
All employers with vacancies	1,729	153	351	490	331	152	167	85
All employers offering any training	2,167	340	505	566	352	155	165	84
All employers offering external training	1,635	209	334	427	301	137	146	81
All employers with apprentices	467	25	53	114	109	45	69	52

Using the data at a regional level

Table 10 shows the number of interviews achieved across each region, and the associated sampling error.

Table 10 Sampling error (at a 95% confidence level) associated with findings of 50%, by region

Subgroup	Number of interviews achieved	Population	(Maximum) sampling error (+/-)
Overall			
Scotland	2,652	151,200	1.9
Aberdeen and Aberdeenshire	313	17,200	5.5
Ayrshire	167	9,200	7.5
Borders	103	4,300	9.5
Dumfries and Galloway	111	5,900	9.2
Edinburgh and Lothians	334	19,800	5.3
Fife	150	8,700	7.9
Forth Valley	137	7,500	8.3
Glasgow	275	21,000	5.9
Highlands and Islands	432	19,300	4.7
Lanarkshire	245	16,800	6.2
Tayside	233	12,100	6.4
West	143	9,400	8.1
West Lothian	61	4,100	12.5

Appendix A: Questionnaire changes since UK EPS 2016

Question number	Question area	Change made	Reason for change
S3	Asking to speak to appropriate person	Removed references specific to countries other than Scotland	Questionnaire is now Scotland- specific
S3a	GDPR legislation	Question added	To comply with GDPR requirements
S3a (in 2016 questionnaire) & S4	Offer Welsh translation	Removed question	Questionnaire is now Scotland- specific
C3	Whether has made use of recruitment services	Removed references/services specific to countries other than Scotland	Questionnaire is now Scotland- specific
C5	Factors establishment looks for in candidates	Removed references specific to countries other than Scotland	Questionnaire is now Scotland- specific
C5a-g	Use of diversity- promoting practices	Question added	To determine extent of use of diversity-promoting practices
C10nwii	Use of government schemes or services	Removed references specific to countries other than Scotland	Questionnaire is now Scotland- specific
C10GP	Awareness of Gender Pay Gap legislation	Question added	To gauge awareness of Gender Pay Gap legislation
C10GPi	Effect of Gender Pay Gap legislation on recruitment practices	Question added	To determine effect of Gender Pay Gap legislation on recruitment practices
C10B-C	Recruitment of education leavers and extent of preparedness for work	Removed question	Questionnaire is now Scotland- specific

Question number	Question area	Change made	Reason for change
C10E-F	Recruitment of education leavers and extent of preparedness for work	Updated terminology from 'Scottish Further Education college' to 'Scottish college'	To reflect terminology changes since 2016
C17	Activities relating to work experience	Updated terminology from 'Scottish Further Education or sixth form college' to 'Scottish college' Removed references specific	To reflect terminology changes since 2016 Questionnaire is Scotland-specific
		to countries other than Scotland	
C18-C19D	Activities relating to work experience	Updated terminology from 'Scottish Further Education or sixth form college' to 'Scottish college'	To reflect terminology changes since 2016
C20	Reasons for offering work experience placements / internships	Added a code for 'Approached by a Developing Young Workforce (or DYW) Lead or Regional Group'	To reflect the Scottish policy context
C21-C22a	Awareness and use of Foundation Apprentices	Questions added	To gauge awareness and use of Foundation Apprentices
C23a	Reasons for engaging in work inspiration activities	Added a code for 'Approached by a Developing Young Workforce (or DYW) Lead or Regional Group'	To reflect the Scottish policy context
C28-C29	Awareness of and engagement with Developing the Young Workforce Regional Groups	Questions added	To gauge awareness of and engagement with Developing the Young Workforce Regional Groups
D2	Sources of advice or hep on skills and training related issues	Updated terminology from 'Scottish Further Education or sixth form college' to 'Scottish	To reflect the Scottish policy context
	3 1 mm 2 122 23 0	college'	To reflect terminology changes since 2016
		Added a code for 'Approached by a Developing Young	Questionnaire is Scotland- specific

Question number	Question area	Change made	Reason for change
		Workforce (or DYW) Lead or Regional Group'	
		Removed references specific to countries other than Scotland	
D4	Awareness of employment-related schemes and initiatives	Removed references specific to countries other than Scotland	Questionnaire is Scotland- specific
D8	External sources of training	Updated terminology from 'Further Education Colleges' to 'Colleges'	To reflect terminology changes since 2016
D9A/D9B	Reasons why external providers are used to deliver training	Removed questions	To reduce questionnaire length
D11A-D12	Reasons why external providers are not used to deliver training	Removed questions	To reduce questionnaire length
D15	Arrangement or funding of training leading to qualifications	Removed references specific to countries other than Scotland	Questionnaire is Scotland- specific
D22	Staff undertaking of apprenticeships	Added a note asking respondents to exclude Foundation Apprenticeships from their answer	Foundation Apprenticeships covered earlier in the questionnaire
D22Bi	Whether any apprentices are on a Graduate Apprenticeship programme	Question added	To reflect the Scottish policy context
D23	Whether apprenticeships are offered	Added a note asking respondents to exclude Foundation Apprenticeships from their answer	Foundation Apprenticeships covered earlier in the questionnaire

Question number	Question area	Change made	Reason for change
D23Aintro	Introductory note prior to series of questions on apprenticeships, asking respondents to exclude Foundation and Graduate Apprenticeships from their answer	Question added	Foundation and Graduate Apprenticeships covered earlier in the questionnaire
D25iii	Type of training provider that delivers training for apprentices	Updated terminology from 'A Scottish Further Education or sixth form college' to 'A college'	To reflect terminology changes since 2016
D27B	Type of organisation approaching to offer apprenticeships	Updated terminology from 'A Further Education or sixth form college' to 'A college'	To reflect terminology changes since 2016
D27C	Reasons for offering apprenticeships	Changed from 'anticipating the Apprenticeship Levy being introduced in 2017' to 'the Apprenticeship Levy' Added a code for 'Approached by a Developing Young Workforce (or DYW) Lead or Regional Group'	To reflect policy changes since 2016 To reflect the Scottish policy context
D33	Reasons for not offering apprenticeships	Removed the codes 'An apprentice is due to start soon' and 'We have only recently opened the application process'	Due to other changes in the questionnaire, it was no longer logically possible for respondents to be 'routed' to these codes
D29	Awareness of different types of apprenticeship	Changed question wording from 'In terms of specific government recognized schemes, have you heard of?' to 'Have you heard of the following types of apprenticeships?' Removed references specific to countries other than Scotland Added a code for Graduate Apprenticeships	To improve questionnaire flow Questionnaire is now Scotland- specific To reflect policy changes since 2016

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d e	d Vocational e asked about in a tion

Question number	Question area	Change made	Reason for change
D39a	Working with different partners to design the content of training	Question added	To find out which what organisations, if any, employers worked with to design the content of training they offered to employees and apprentices
D40	Interest in being involved in designing content of training	Question added	To gauge the extent to which employers' aspirations to being involved in training design were being frustrated
E1	Accreditation with Investors in People	Removed question	To reduce questionnaire length
F4	Employer attitudes to training	Removed question	To reduce questionnaire length
G2 and G3a	Follow up research and interest in survey findings	Changed reference from 'Government' to 'Scottish Government' Changed publication date from December to 'later this year'	Questionnaire is Scotland- specific To reflect new publication timings

Appendix B: Questionnaire coverage

		-	
Question	Question Number	Comparison to 2016	Time series possibility
Firmographics (i)			
Multi or single site	A2	Same	Yes
Whether Head Office	A3	Same	Yes
Total staff across organisation	A4	Same	Yes
Number of staff on site	A1	Same	Yes
Organisation classification	A5	Same	Yes
Sector	A7/A8	Same	Yes
Recruitment			
Whether had vacancies	C1	Same	Yes
Familiarity with and use of government services or initiatives	C2/C3	Revised	Yes
Broad recruitment channels used	C4a/C4b	Same	Yes
Factors looked for in candidates	C5	Revised	Yes
Equality and diversity practices	C5a-g	No (new question)	-
Whether recruited in last 12 months	C6a	Same	Yes
Age of recruits	C6b-e	Same	Yes
Recruitment of young people			
Role of last young person recruited	C8	Same	Yes
Broad recruitment channels used for last young person recruited	C10nw /C10nwi	Same	Yes
Whether used government scheme or initiative for last young recruit	C10nwii	Revised	Yes
Gender Pay Gap legislation			
Awareness and impact of Gender Pay Gap legislation	C10GP/ C10GPi	No (new question)	-
Recruitment of education leavers			
Whether recruited anyone to their first job on leaving education in last 2-3 years	C10a/e	Revised	Yes
Preparedness of education leavers for work	C10f/g	Revised	Yes
Work experience and inspiration			
Type of work experience placement offered in last 12 months	C17	Revised	Yes

Question	Question Number	Comparison to 2016	Time series possibility
Number of individuals on work placements in last 12 months	C18	Revised	Yes
Whether individuals taken on to long-term role	C19C	Revised	Yes
Reason for offering work placements	C20	Revised	Yes
Awareness and use of Foundation Apprenticeships	C21/C21a	No (new question)	-
Whether engaged with education institutions to provide work inspiration to students	C23	Same	Yes
Reasons for offering work inspiration opportunities	C23a	Revised	Yes
Reasons for not offering work placements or inspiration	C27	Same	Yes
Awareness of and engagement with Developing the Young Workforce Regional Groups	C28/C29	No (new question)	-
Sources of training information and a	dvice		
Whether sought or needed to seek advice on training in last 12 months	D1/D1a	Same	Yes
Sources of advice used	D2	Revised	Yes
Familiarity and use of Government schemes and initiatives	D4/D5	Revised	Yes
Training activity			
Whether provided internal or external training in last 12 months	D6a/b	Same	Yes
External sources of training used	D8	Revised	Yes
Whether worked with other employers to develop staff	D36	Revised	Yes
Training to VQs			
Whether train to VQs	D13	Same	Yes
Reasons for not training to VQs	D14	Same	Yes
Level of VQs	D15	Revised	Yes
Extent VQs improve the business	D16/17	Same	Yes
Apprenticeships			
Whether offer formal framework	D22	Revised	Yes
Number of current apprentices	D22a/b	Same	Yes
Whether apprentices on Graduate Apprenticeship programme	D22Bi	No (new question)	-
Whether offer apprenticeships	D23	Revised	Yes
Whether site previously offered apprenticeships	D23i	Same	Yes

Question	Question Number	Comparison to 2016	Time series possibility
Age of apprentices	D23A	Same	Yes
Whether apprentices are recruits external to the business	D23B	Same	Yes
Type of training provided	D25i/ii	Same	Yes
Type of training provider used	D25iii	Revised	Yes
Typical length of apprenticeship	D26	Same	Yes
History of apprenticeship offer	D27i	Same	Yes
Trigger for offering apprenticeships	D27a/b	Revised	Yes
Motivation for offering apprenticeships	D27c	Revised	Yes
Historic churn of apprenticeship offer	D27d	Same	Yes
Awareness of apprenticeships	D28	Same	Yes
Reasons for not offering apprenticeships	D33	Revised	Yes
Awareness of or interaction with apprenticeships schemes	D29	Revised	Yes
Whether plan to offer apprenticeships in future	D34	Same	Yes
Anticipated churn in apprentice numbers	D27e	Same	Yes
Reason for anticipated churn	D27f/g/h	Revised	Yes
When plan to offer apprenticeships in future	D34i	Revised	Yes
Reason for starting to offer apprenticeships	D34ii	Revised	Yes
Reason for not planning to offer apprenticeships	D34a	Same	Yes
Preparedness for work of Modern Apprentices	D34b	No (new question)	-
Whether work experience / Foundation Apprenticeships seen as route to apprenticeship	D35c/ci	Revised	Yes
Employer involvement in content and	l design		
Level of involvement with apprenticeships, VQs and external training	D39	Same	Yes
Whether worked with partners to design the content of training	D39a	No (new question)	-
Whether would have like to be more involved	D40	Revised	Yes
Reasons for not being involved	D41	Revised	Yes
National Occupational Standards			
Awareness of NOS	D20	Same	Yes
Use of NOS	D21	Same	Yes

Question	Question Number	Comparison to 2016	Time series possibility
Employer Attitudes and Firmographic	cs (ii)		
	F1		_
History of operating	(previously	Same	Yes
	A6)		
	F2		
Growth prospects	(previously	Same	Yes
	A6a)		
	F3		_
Growth over last year	(previously	Same	Yes
	A9)		
Closing questions	G1-G3a	Revised	Yes

Appendix C: Questions requiring coding

Question	Question Number
Organisation classification	A5
Sector	A7/A8
Methods used to fill vacancies	C4a
Types of paid for recruitment services used to fill vacancies	C4b
Ways in which establishment encourages a diverse range of job applicants	C5g
Position last young person recruited was recruited to	C8
Methods used to fill role young person/people recruited to	C10nw
Types of paid for recruitment services used to fill role young person/people recruited to	C10nwi
Changes Gender Pay Gap legislation has led to in establishment	C10GPi
Ways in which secondary school/college/university leavers have been poorly prepared	C10
Reasons for offering work experience placements or internships	C20
Main reasons for engaging in work inspiration activities	C23a
Reasons for not engaging with work inspiration activities	C27
Sources of advice used on skills and training related issues	D2
External sources of training used in past 12 months	D8
Reasons establishment has not arranged training designed to lead towards vocational qualifications	D14
Qualification levels training arranged or funded for	D15
Type of training provider delivering apprentice training	D25iii
Type of organisation that approached regarding apprenticeships	D27B
Reasons for starting to offer apprenticeships in last 3 years	D27C
Reasons establishment doesn't currently offer apprenticeships	D33
Reasons expect number of apprentices to increase/stay the same/decrease over next 2 years	D27H
Reasons organisation intends to start offering apprenticeships in the future	D34ii
Reasons organisation not planning to offer apprenticeships in the future	D34A
Other establishments worked with to design to content of Apprenticeships/Vocational Qualifications/External Training	D39a
Factors that prevented from being involved in designing content of Apprenticeships/Vocational Qualifications/External Training	D41
Ways in which National Occupational Standards are used	D21

Appendix D: Reassurance email

REF: [KEY NUMBER]

Employer Perspectives Survey

Thank you for considering participating in this important research.

The Employer Perspectives Survey is being conducted on behalf of the Scottish Government. The project is being conducted by IFF Research, an independent market research organisation.

The survey aims to help the Scottish Government and other organisations to help employers like you, by better understanding your needs in terms of skills, training and employment. Your co-operation will ensure that the views expressed are representative of all employers in your sector.

Participation in the survey will involve a telephone interview with an IFF interviewer lasting around 20 minutes at a time that is convenient for you and we hope very much that you are able to take part.

For further information regarding the survey, please see the Scottish Government's website: https://www2.gov.scot/Topics/Statistics/Browse/Lifelong-learning/EPS

If you have any queries concerning the format or content of the interview, please contact Naomi Morrice or Sam Stroud at IFF Research, tel: 020 7250 3035 or e-mail:

<u>EmployerPerspectivesSurvey@IFFResearch.com</u>. If you would like to speak to somebody at the Scottish Government for more information on the aims and objectives of the survey, you can contact Peter Phillips on peter.phillips@gov.scot

Your replies will be treated in the strictest confidence under the Code of Conduct of the Market Research Society. Responses will not be linked to individual companies or respondents without their prior consent.

Thank you for your assistance.

Yours sincerely,

Naomi Morrice Senior Research Executive IFF Research

Appendix E: ROA regions (and their constituent Local Authorities)

ROA Region	Local Authority (note some overlap)	
Aberdeen and Aberdeenshire	Aberdeen City	
	Aberdeenshire	
Ayrshire	East Ayrshire	
	North Ayrshire	
	South Ayrshire	
Borders	Scottish Borders	
Dumfries and Galloway	Dumfries and Galloway	
Edinburgh and Lothians	East Lothian	
_	Edinburgh	
	Midlothian	
Fife	Fife	
Forth Valley	Clackmannanshire	
-	Falkirk	
	Stirling	
Glasgow	East Dunbartonshire	
	East Renfrewshire	
	Glasgow	
Highlands and Islands	Argyll and Bute	
	Eilean Siar	
	Highland	
	Moray	
	Orkney islands	
	Shetland Islands	
Lanarkshire	East Dunbartonshire	
	North Lanarkshire	
	South Lanarkshire	
Tayside	Angus	
	Dundee	
	Perth and Kinross	
West	East Renfrewshire	
	Inverclyde	
	Renfrewshire	
	West Dunbartonshire	
West Lothian	West Lothian	
	. TOOL Edition	



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