Evaluation of Skills Bank

Summary and technical report for the Sheffield City Region Combined Authority

John Higton, Research Director, CFE Research

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Report author(s):

John Higton

For more information about this report please contact:
John Higton

john.higton@cfe.org.uk

CFE Research
Phoenix Yard
Upper Brown Street
Leicester
LE1 5TE

0116 229 3300

www.cfe.org.uk

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Descriptive analysis of management information

# Introduction

## Purpose

Management information is an important source of factual data describing the operational outputs of the Skills Bank. Limited internal analysis of this data has been completed to date by the Sheffield City Region Combined Authority (SCRCA). As part of the wider evaluation, CFE Research was asked to undertake a descriptive statistical analysis of the management information provided by PwC (the Skills Bank contractor).

## Method

PwC's data cut describes the employers applying for a Skills Deal and the courses they sought to procure. Data was provided to Sheffield City Region Combined Authority (SCRCA) staff for their records. After completing the relevant data protection forms, this data was supplied to CFE Research for subsequent analysis. This data was then assessed for completeness and the processed to make it suitable for analysis.

The data cleaning process was lengthy (see Annex 1 for a full description of the steps taken) and the authors make several wider observations to influence future procurement exercises:

1. The data provided to SCRCA is an incomplete record of all the data PwC collected. It is unclear which organisation owns the data. Throughout the operational period, most PwC data came as a pre-processed, tabulated output. Clear data ownership, storage and access should form part of any new Skills Bank contract.
2. Edited access to data records made it difficult for SCRCA to properly manage the contract with PwC as some reporting was opaque. For example, the data supplied by PwC is a record of all applications rather than completed Skills Deals. This fact was not made clear to SCRCA by PwC and had the potential to lead to erroneous reporting of delivered outputs. The audit trail for government funding should make it easy for SCRCA to understand all elements of contract delivery for any subsequent delivery model.
3. The quality of the data extract supplied is also variable hence the significant processing work described in Annex 1. It is the view of the evaluators that PwC's internal data management and processing systems were less robust than desired, especially given the reliance of their operational model on self-service brokerage. One example of data quality implications is whether some Skills Deals were delivered to sole traders. The supporting evidence and data checking exercises undertaken suggest this is the case. Management information interrogation processes for any new Skills Bank contract should ensure that it is easy to assess whether or not applicants are eligible for support.
4. The data extract supplied also mixes database entities as employer and Skills Deal descriptors were provided in a flat data file. A relational database model would be more useful for understanding the progress towards separate delivery targets such as the number of employers engaged versus the number of Skills Deals / learners engaged. PwC's delivery model required separation of records to provide the correct data outputs to the Education and Skills Funding Agency and other government agencies. Feedback from the wider evaluation suggests PwC sometimes struggled to fulfil this aspect of their contract. Future Skills Bank contractors should their management information systems are suitable for purpose and allow transparent reporting to government agencies and the SCRCA.

For the purpose of the analysis, it is assumed that supplied records cover all applications, including those that were rejected. Figure 2 below shows nine in ten of eligible employers listed on the data set (90%) had at least some training delivered through Skills Bank.

Skills Deals classed as "training delivered" cover most of the analysis in this report (the sub-group is entitled Training Delivered when reported). Another important sub-group definition is learners from eligible employers which means organisations that can be identified as employers and excludes probable sole traders in the data set (see Annex 1).

Of the four rejection categories used by PwC, "Provider rejected" was the reason most frequently listed in the data for rejecting a Skills Deal application. Nearly two-in-five eligible employers (38%) had at least one Skills deal rejected for this reason. This category means the provider was unable to deliver the suggested Skills Deal.

Figure 1: Proportion of employers whose employees received training and reasons for rejection

Source: PwC Management Data

The other rejected application categories shown are:

* Skills Bank Operator Rejected: PwC assessed the application and rejected it;
* Employer Rejected: The employer chose not to continue with the Skills Deal presented to them; and
* Investment Board Rejected: SCRCA refused the application.

The management data provides no further qualitative explanation for why Skills Deals were rejected.

All supplied data is analysed where it is logical to do so.

# Profile of employers listed on PwC data

## Industrial sector

PwC's own bespoke industrial sector category was listed for 92% of records (including an Unknown category); no sector was recorded for the other 8%. Whilst many of these businesses could be identified by matching to the Financial Analysis Made Easy (FAME) dataset (See Annex 1 for more detail on the matching process), the use of a bespoke sector classification made it impossible to infill industrial sector from FAME where it was missing. For example, the top four of PwC's employer categories by volume for the total population are Other; "#N/A" or missing (33%); Building and Materials (21%); Engineering Products (12%); and Health Care and Related Services (6%). At best, categories aside from Other can be matched to the "Section" element of the UK Standard Industrial Classification of economic activities (UK SIC)[[1]](#footnote-1) i.e. F Construction; C Manufacturing; and Q Human Health and Social Work Activities. However, even that exercise would involve some estimation. For example, Building and Materials may relate to manufacture of relevant construction materials, in which case using the F Section of the UK SIC would misclassify such businesses.

Management information for any future Skills Bank contract should use the ONS UK SIC classification to describe employers to allow better monitoring and analysis of impact.

Figure 2 (overleaf) shows the distribution of PwC employer sector descriptions for also those listed as Training Delivered in the management information. A third have no sector listed and over one-in-five (22%) are classed under Manufacturing / Engineering or Construction.

PwC's original marketing plan identified seven initial target sectors characterised by high potential growth and Gross Value Added (GVA) per job[[2]](#footnote-2). Listed by order of current employment, these sectors were:

Professional, business and financial services;

Construction;

Logistics;

Advanced Manufacturing;

Creative / Digital;

Health care technology; and

Low carbon technology.

PwC's sector classification provides no variables to monitor levels of engagement with many of these sectors. There is no variable that identifies, for example, target sector GVA. Further, employers from some of these target sectors (underlined above) are not present in the management information, listed under Other categories or were never engaged by Skills Bank.

Figure 2: Employers whose training was delivered by PwC Sector

Source: PwC Management Data

Management information for any future Skills Bank contract should include variables that allow the contractor to simply identify sectors of interest for monitoring purposes.

## Size of business

The size of the business was recorded by PwC as text field with four categories: micro; small; medium; and large. No descriptive data defining each category was provided: it was assumed the banding matched the standard size bands used by ONS. This was tested using the matched FAME records and records mostly aligned to:

1. Micro-businesses were those with 1-9 employees;
2. Small as 10-49 employees;
3. Medium as 50 to 249 employees; and
4. Large as 250 or more employees.

More than seven-in-ten (72%) of employers in the application population, and listed as Training Delivered, were micro or small employers (49 employees or fewer, Figure 4). However, although micro-businesses were less likely to apply for a Skills Deal compared to smaller businesses, they were more likely to receive training. All sole traders were classed in the micro-category for this exercise. Two-thirds of those thought to be sole traders received training which may be the reason why a higher than expected proportion are identified in the micro category in Figure 3.

Figure 3: The size of all applicant employers and all listed as Training Delivered

Source: PwC Management Data

## Local authority area

The number of businesses that received training is compared to the overall 2017 SCR population of enterprises per local authority (LA) as recorded by the Office for National Statistics (ONS)[[3]](#footnote-3) in Figure 4. The authors make two observations:

1. Six SCR local authorities are covered by an additional Local Enterprise Partnership (LEP) - North East Derbyshire, Chesterfield, Bassetlaw, Barnsley, Bolsover and Derbyshire Dales[[4]](#footnote-4). This means businesses in those local authorities may have access to support from another LEP / LA.
2. It is unknown (i.e. there is no record on the data) whether separate branches of the same enterprise engaged with Skills Bank, or whether the contractor managed delivery through the headquarters of multisite companies. As such, the contractor data may include some branches of multi-site businesses.

The chart shows that 44% of the businesses that received training from the Skills Bank were located in the Sheffield LA. In comparison, 28% of all SCR enterprises are located in Sheffield: Sheffield businesses were therefore over-represented. The local authorities of Bassetlaw, Bolsover, Derbyshire Dales and North East Derbyshire were under-represented. However, the issue coverage is more complex as discussed later in the *learners by local authority* section.

Figure 4: Employers listed as Training Delivered compared to 2017 ONS enterprise-level population by SCR local authority

Sources: PwC Management Data; ONS Business Data

# Profile of learners listed on PwC data

## Training delivered

A total of 21,956 potential learners were included in all applications to the Skills Bank (Figure 5). The contractor's data shows that of these, just under two-thirds (63%, or 13,753) had their training delivered.

Earlier, Figure 2 showed that 5% of employer applications were rejected by the Investment Board. However, these applications accounted for 14% of all potential learners, most of which were employees of one business.

Figure 5: Total number of learners covered by all Skills Bank applications

Source: PwC Management Data

## Level of learning

UK qualifications use a standardised difficulty level that measures equivalency between qualifications. Level 2 is equivalent to a GCSE and Level 3 is equivalent to an A level. Level 4 equates to a higher apprenticeship or higher national certificate (HNC). Levels continue up through degrees and postgraduate qualifications.

The contactors data shows that nearly half of learners undertook a Level 2 qualification (46%) and a third a qualification at Level 2 (33%). The remaining one in five learners undertook courses at Level 3 or higher (22%; Figure 6).

Figure 6: Proportion of learners on Skills Bank training by level

Source: PwC Management Data

## Learners by subject

The ESFA's Individualised Learner Record (ILR) classes course subjects into two tiers. Tier 1 incorporates 13 separate subjects that are then further sub-divided into another 49 subject categories at Tier 2. Forty-six Tier 2 subjects appear in the PwC database.

More than nine-in-ten learners (93%) took courses that were delivered in four Tier 1 subject classes: Business, Administration and Law (61%); Health, Public Services and Care (16%); Construction, Planning and the Built Environment (11%); and Engineering and Manufacturing Technologies (6%). Most of the remainder were classed under Information and Communication Technology (5%) or Education and Training (2%).

When analysed at Tier 2, ten courses accounted for nine in ten learners (92%). The first three subject categories listed in Figure 8 (Marketing and Sales, Business Management and Health & Social Care) accounted nearly two-thirds of learners (63%, see Figure 7 overleaf).

Figure 7: Proportion of learners by Tier 2 subject

Source: PwC Management Data

The Tier 2 subject categories with most learners were also analysed by the qualification level, as shown in Figure 8. Marketing and Sales courses were nearly all (93%) delivered at below Level 2. In comparison, Business Management courses were mostly delivered at Level 2 (67%) or Level 3 and above (29%). Two-thirds of courses within the Accounting and Finance category were delivered at Level 3 or higher, as were nearly half (47%) of ICT for Users courses and nearly all Administration courses. Most courses in the 23 other Tier 2 subjects were either Level 2 (16%), or Level 3 or higher (83%).

Figure 8: Proportion of learners by Tier 2 subject and qualification level

Source: PwC Management Data

## Guided learning hours

Each Skills Deal listed in the management information included the number of guided learning hours (GLH) associated with that training. Since 2016, Guided Learning (GL) covers "*activity of a Learner in being taught or instructed … under the Immediate Guidance or Supervision of [an] … appropriate provider of education or training*."[[5]](#footnote-5) The extent to which the contractor's management information aligns to this definition is unclear from the associated documentation; this analysis assumes comparability.

### Guided Learning hours by level of qualification

Analysis of Skills Deals classed as Training Delivered shows that GL ranged from 0 (i.e. no guided learning) to 600 hours. Mean and median GL increase with qualification level as per Table 1. A relationship between GL hours and the difficulty of training would be expected. The difference in duration between sub-Level 2 training and that at higher levels is marked.

Table 1: Guided Learning (GL) associated with Training Delivered by educational level (hours)

|  |  |  |
| --- | --- | --- |
|  |  | Hours |
| Level | Base | Mean  | Median  | Minimum | Maximum |
| Below Level 2 | 1,093 | 5.0 | 1 | 0 | 213 |
| Level 2 | 485 | 32.6 | 12 | 0 | 600 |
| Level 3 | 459 | 41.4 | 25 | 0 | 488 |
| Level 4 | 232 | 54.8 | 40 | 0 | 407 |
| All delivered training | 2,284 | 23.9 | 8 | 0 | 600 |

Source: PwC Management Data

### Guided learning hours by subject

Five Tier 1 subject categories account for 95% of all Skills Deals where training was delivered. The median and mean GL hours for each of these subject groupings is presented in Figure 9. Business, Administration and Law Skills Deals comprise more than half of the total (52%) and the one hour GL is lower than for any other Tier 1 subject. The highest median and mean GL was found with training in Construction, Planning and the Built Environment and Engineering and Manufacturing Technologies.

Figure 9: Guided Learning (GL) by selected SSA Tier 1 subject category (hours)

Source: PwC Management Data

Training in the Marketing and Sales Tier 2 category accounted for two-thirds (67%) of all Business, Administration and Law Skills Deals, and a third (32%) of all Training Delivered via Skills Bank. The mean GL for Tier 2 Marketing and Sales training was 2.1 hours. The six categories presented in Figure 10 account for nearly four in five of all Skills Deals with Training Delivered (78%).

Figure 10: Guided Learning (GL) by selected SSA Tier 2 subject category (hours)

Source: PwC Management Data

## Number of learners per qualification

Nearly all of the Skills Deals represented in the PwC data included a record for the number of learners. Looking at those where training was delivered, the median number of learners was 2 and the mean 6. The distribution of the number of learners by Skills Deal and employer size is presented in Table 2 and shows that more than a third of courses (36%) were delivered to a single learner in an SME. Overall, Skills Deals cover 1 or 2 learners accounted for more than half (55%) of all Skills Deals.

Table 2: Distribution of Skills Deals by the number of learners trained and size of business

|  |  |  |
| --- | --- | --- |
| **Number of learners** | **Size of employer** | **Total** |
| **Micro** | **Small** | **Medium** | **Large** |
| 1 learner | 13% | 16% | 8% | 1% | **37%** |
| 2 learners | 4% | 9% | 5% | 0% | **18%** |
| 3 to 4 learners | 3% | 9% | 4% | 1% | **16%** |
| 5 to 9 learners | 1% | 8% | 4% | 1% | **14%** |
| 10 to 19 learners | 0% | 4% | 4% | 1% | **10%** |
| 20 to 49 learners | 0% | 1% | 1% | 0% | **3%** |
| 50 or more learners | 0% | 0% | 0% | 1% | **1%** |
| **Total** | **21%** | **47%** | **27%** | **6%** | **2,289** |

## Qualification and awarding organisation data

Detailed analysis by qualification or awarding organisation challenging because of poor data coverage. Nearly two-thirds of all recorded Skills Deals (64%) contain null data for both variables. Of the remainder, there is significant duplication and minor text differences between cells.

The data for awarding organisation was cleaned. A binary recode of the awarding organisation variable was undertaken that identified whether or not a data record was null / awarded in-house i.e. whether an awarding organisation was listed. For all Training Delivered, 69% of Skills Deals had no external awarding body.

### Use of external awarding bodies by subject

The proportion of Skills Deals with no external awarding body varies by Tier 1 subject (Figure 11). For the Business, Administration and Law category, 19 out of every 20 Skills Deal (95%) had no listed external awarding body. At the other end of the scale, seven-in-eight Health, Public Services and Care Skills Deals (87%) were awarded by an external body.

Figure 11: Proportion of Skills Deals with and without an external awarding body by SSA Tier 1 subject category

Source: PwC Management Data

### Use of external awarding bodies by level

When analysed by qualification level, nine-in-ten of Skills Deals offered below Level 2 (88%) had no external awarding organisation, falling to half at Level 2 (49%) and two-in-five at Level 3 (41%). However, of the 232 Level 4 Skills Deals, more than four-in five had no external awarding organisation listed (82%). These Level 4 Skills Deals mostly comprised of training in two Tier 2 subjects: Business Management (43%); and Accounting and Finance (33%).

# Cross comparisons between employer and learner data

## Learner data by employer characteristics

### Learners by industrial sector and employer

Although a quarter of learners who received training worked for employers whose sector was classed as Unknown (24%), analysis by sector has value. Four aggregated PwC sector categories accounted for two-thirds (68%) of learners receiving training: Other Services (19%); Manufacturing / Engineering (18%); Construction (17%); and Health (14%).

Figure 13: Industrial sector category in which learners receiving training worked

Source: PwC Management Data

For a more granular look, the PwC sectors accounting for at least 2% of learners receiving trading are presented in Figure 14 and again, four predominate comprising 58% of all Training Delivered. The sectors are:

* Building and Materials (17% of learners, classed within Construction);
* Tourism and Leisure (15%, classed within Other Services);
* Health Care and Related Services (14%, classed within Health); and
* Engineering Products (12%, classed within Manufacturing / Engineering)

Figure 14: Specific PwC industrial sector in which learners receiving training worked

Source: PwC Management Data

The extent to which Skills Bank reached the right target businesses by sector is difficult to gauge as the management information does not record the ONS SIC (see earlier commentary). Making a subjective judgement based on PwC sector categories, the number of learners working in some target growth sectors is limited, especially in Financial Services, Creative & Digital and Logistics. A better case can be made for Construction. The case for Advanced Manufacturing, Health Care Technology and Low Carbon Technology is hard to gauge.

The analysis suggests the level of non-technical training is high: Figure 8 earlier showed that more than half of learners were trained in Marketing and Sales, Business Management and Health and Social Care. This data therefore suggests that the growth story associated with the majority of Skills Deals was argued using a business support rationale as opposed to developing the technical skills of employees. Little technical training in many target sectors was evident based on this analysis.

### Learners by employer size

Figure 15 compares the distribution of all learners included for Skills Deal applications (the population of potential learners) to those listed as Training Delivered by the size of their employer. The chart shows that the total number of learners aggregated by applications was broadly similar for large, medium and small employers, accounting for around three-in-ten applications in each case. Micro employers comprised 6% of applications and 7% of Training Delivered.

Figure 15: Distribution of learner applications and Training Delivered by size of employer

Source: PwC Management Data

A third of learners (33%) covered in Skills Deal applications worked for large employers. The equivalent proportion for Training Delivered was 5 percentage points fewer at 28%. This is a reflection of the size of Skills Deals rejected. The mean number of employees covered in deals classed as Training Delivered was 30 compared 52 employees for unsuccessful applications. Applications from one company accounted for nine rejected applications that would have covered nearly 2,000 employees. This company's data is mostly responsible for this skew.

The sum of learner categorised as Training Delivered is plotted against the size of the employer in Table 3 overleaf. One-in-five learners (21%) were part of a substantial Skills Deal (covering 50 or more employees) delivered to a large employer. Three quarters of learners that worked for large companies were trained as part of the largest Skills Deals.

Table 3 also shows that:

* Nearly four-in-five Skills Deals trained 5 or more learners (78%). This may reflect an economy of scale necessary to make most training viable.
* Skills Bank was successful in reaching small employers considering their overall volume of employees. A third of all learners receiving training worked for small firms (defined as 10 to 49 employees). Two-thirds of these Skills Deals covered a fairly large number of learners relative to the size of the business (at least five employees).
* The proportion of learners trained through micro deals (covering 1 or 2 learners) appears relatively high at one-in-eight (12%). The subjects covered by these deals is discussed later.

Table 3: Number of learners listed in a Skills Deal by the size of employer, Training Delivered only

|  |  |  |
| --- | --- | --- |
| **Number of learners** | **Employer Company Size** | **Total** |
| **Micro** | **Small** | **Medium** | **Large** |
| 1 learner | 2% | 3% | 1% | 0% | **6%** |
| 2 learners | 1% | 3% | 2% | 0% | **6%** |
| 3 to 4 learners | 1% | 6% | 2% | 0% | **10%** |
| 5 to 9 learners | 1% | 8% | 5% | 1% | **15%** |
| 10 to 19 learners | 0% | 9% | 9% | 3% | **20%** |
| 20 to 49 learners | 1% | 5% | 6% | 2% | **13%** |
| 50 or more learners | 0% | 0% | 7% | 21% | **29%** |
| **Total** | **7%** | **33%** | **32%** | **28%** |  |

Source: PwC Management Data

Finally, PwC aimed to "*support employers to find the training they need[ed] by aggregating demand from more than one employer*.[[6]](#footnote-6)“ There is no data provided in the management information that identifies whether "demand aggregation" was successfully achieved (such as, for example, a variable that identifies collective delivery). All data in this paper is assumed to be delivered to, and only to, the listed employer. This assumption may be incorrect.

If the concept of demand aggregation (or collective delivery of Skills Deals to more than one employer) is desirable for future iterations of Skills Bank, then such deals should be clearly identified in the management information to gauge their volume and coverage.

### Learners by Local Authority Area

More than half of learners receiving training (54%) worked for employers based in the Sheffield LA. Employers in Doncaster (14%), Rotherham (12%) and Barnsley (8%) accounted for most of the rest. The number of learners working for employers in the other LAs was low.

Figure 15 presents the volume and the proportion of learners covered in all applications who received training for each LA. The bars represent learner volumes and the line in the figure compares Training Delivered as a proportion of the total number of learners covered in all Skills Deal applications. The success of applications was highest in the Derbyshire Dales as 92% of learners identified in Skills Deals received training. However, the volume of learners was small at just 307. In comparison, 56% of learners included in all of Doncaster's Skills Deal applications ended up receiving training, equating to 1,965 learners.

Figure 15: The number of learners trained and the proportion learners receiving training by Local Authority

Source: PwC Management Data

The data in Figure 4 showed that employers in the Derbyshire Dales and Bassetlaw were under-represented in Training Delivered by Skills Bank. It is also the case that the proportion of total SCR employees trained is very low in these LAs at 2% and 1% respectively. ONS figures show that the proportion of SCR employees working in the Derbyshire Dales was 4% in 2018, and 6% in Bassetlaw.

Figure 16 compares the distribution of Skills Bank learners to the distribution of all employees working in the SCR in 2018. The figures show the percentage point difference in the distribution of learners versus all the region's employees. For example, Sheffield accounted for 54% of Skills Bank learners and 32% of the total SCR employee population (a difference of +23 percentage points after rounding). In comparison, Barnsley accounted for 8% of Skills Bank learners but 13% of all SCR employees (-5 percentage points). Employees of Sheffield businesses were far more likely to receive training from Skills Bank than those in other SCR Local Authorities.

Figure 16: Comparison between the proportion of learners receiving training through Skills Bank and the total employee population in SCR Local Authorities

Sources: PwC Management Data; ONS Table LI01 Local labour market indicators by unitary and local authority

## Qualification data by employer characteristics

### Level of qualification by industrial sector and employer size

The level of qualification (meaning individual Skills Deal) by an employer's industrial sector is shown in Table 4; the data excludes employers whose industrial sector was unclassified. Sub-level two qualifications were mostly present in the Construction and Manufacturing / Engineering sectors. The proportions in Table 4 reflect the distribution of learners by sector discussed earlier. Qualifications at Level 2 were especially prevalent (73% of all at Level 2) for employers in the Construction and Manufacturing / Engineering sectors.

Table 4: Qualification level of Training Delivered by industrial sector (excludes unknown sector)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PwC Sector** | **Sub-Level 2** | **Level 2** | **Level 3+** | **Total** |
| Construction | 16% | 8% | 9% | **33%** |
| Finance | 1% | 0% | 2% | **4%** |
| Health | 5% | 2% | 1% | **8%** |
| IT / Media Services | 6% | 1% | 3% | **10%** |
| Manufacturing / Engineering | 15% | 8% | 12% | **35%** |
| Other Services | 3% | 2% | 3% | **8%** |
| Transportation | 0% | 0% | 0% | **0%** |
| Utilities / mining | 0% | 0% | 0% | **1%** |
| **Total** | **48%** | **22%** | **30%** |  |

Base: 1,556 Skills Deals. Source: PwC Management Data

Nearly half of all Skills Deals resulting in training were made with small employers (47%; Table 5) and a further one-in-five (21%) with micro employers. The Skills Bank was therefore successful in arranging a large number of deals with smaller SCR employers. One-in-five of all Skills Deals resulting in training were sub-Level 2 courses for small employers.

Table 5: Qualification level of Training Delivered by size of employer

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Size of employer** | **Sub-Level 2** | **Level 2** | **Level 3+** | **Total** |
| Large | 3% | 1% | 1% | **6%** |
| Medium | 12% | 6% | 9% | **27%** |
| Small | 20% | 12% | 15% | **47%** |
| Micro | 12% | 3% | 6% | **21%** |
| **Total** | **48%** | **21%** | **31%** | **2,290** |

Base: 2,290 Skills Deals. Source: PwC Management Data

### Level of qualification by Local Authority

The dominance of Sheffield as a centre for activity is also apparent in Table 6 as nearly a quarter (23%) of all deals resulting in training were sub-Level 2 qualifications delivered in that LA. Like Sheffield, around a half of Skills Deals in Doncaster and Rotherham were below Level 2.

Table 6: Qualification level of Training Delivered by Local Authority

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Size of employer** | **Sub-Level 2** | **Level 2** | **Level 3+** | **Total** |
| Barnsley | 4% | 2% | 4% | **10%** |
| Bassetlaw | 1% | 0% | 1% | **3%** |
| Bolsover | 1% | 1% | 1% | **3%** |
| Chesterfield | 2% | 2% | 2% | **6%** |
| Derbyshire Dales | 1% | 0% | 0% | **2%** |
| Doncaster | 9% | 2% | 4% | **15%** |
| North East Derbyshire | 1% | 1% | 1% | **3%** |
| Rotherham | 5% | 2% | 3% | **11%** |
| Sheffield | 23% | 12% | 14% | **48%** |
| **Total** | **48%** | **21%** | **31%** |  |

Base: 2,290 Skills Deals. Source: PwC Management Data

## Subject by employer characteristics

### Subject by industrial sector and employer size

Table 7 overleaf underlines the prevalence of Business, Administration and Law courses supported through the Skills Bank. Where the employer's sector is known, such training accounted for nearly three-in-five (59%) of all learners. Other subject categories tended to broadly align with industrial sector. Learners employed by organisations in the Health sector mostly completed training in Health, Public Services and Care subjects (59%). Although courses in Business, Administration and Law comprised most training in all other industrial sectors, there was a relationship with sector in other subject areas. For example, a quarter of learners employed in the Manufacturing / Engineering sector (24%) undertook training within an Engineering & Manufacturing Technologies subject.

Table 8 looks at this data the other way by measuring the distribution of subjects by sector. This shows nine-in-ten instances of Engineering & Manufacturing Technologies training (89%) were undertaken by employees working in the Manufacturing / Engineering sector. Similarly, 70% of learners on Construction, Planning & Built Environment courses worked in the Construction sector.

Table 7: Industrial sector of learners trained by Tier 1 Subject area

|  |  |  |
| --- | --- | --- |
|  | **PwC Industrial Sector Category** |  |
| **Subject category (SSA Tier 1)** | **Health** | **Other Services** | **Manufacturing / Engineering** | **Construction** | **IT / Media Services** | **Other** | **Total excl. Unknown** |
| Business, administration and law | 39% | 81% | 49% | 51% | 79% | 78% | 59% |
| Health, public services and care | 59% | 3% | 15% | 8% | 4% | 2% | 17% |
| Construction, planning & built environment | 0% | 6% | 6% | 34% | 2% | 5% | 11% |
| Engineering & manufacturing technologies | 0% | 1% | 24% | 1% | 1% | 1% | 6% |
| Information & communication technology | 0% | 7% | 2% | 3% | 9% | 9% | 4% |
| Education and training | 0% | 0% | 3% | 2% | 1% | 4% | 1% |
| Other | 1% | 1% | 2% | 1% | 5% | 0% | 1% |

Base: 10,341 learners receiving training (excludes Unknown sector). Source: PwC Management Data

Table 8: Subject taken by learners trained by their employer's industrial sector

|  |  |
| --- | --- |
|  | **PwC Industrial Sector Category** |
| **Subject category (SSA Tier 1)** | **Health** | **Other Services** | **Manufacturing / Engineering** | **Construction** | **IT / Media Services** | **Other** |
| Business, administration and law | 12% | 35% | 20% | 19% | 10% | 3% |
| Health, public services and care | 63% | 5% | 20% | 10% | 2% | 0% |
| Construction, planning & built environment | 0% | 15% | 13% | 70% | 1% | 1% |
| Engineering & manufacturing technologies | 0% | 5% | 89% | 4% | 1% | 0% |
| Information & communication technology | 0% | 46% | 13% | 18% | 17% | 5% |
| Education and training | 1% | 1% | 50% | 37% | 4% | 7% |
| Other | 16% | 22% | 27% | 10% | 25% | 0% |
| **Total ex. Unknown** | 18% | 26% | 24% | 22% | 8% | 2% |

Base: 10,341 learners receiving training (excludes Unknown sector). Source: PwC Management Data

An analysis by Tier 2 subject area explains some of the apparent anomalies in Tables 7 and 8. Health and safety training is classified under the Health and safety training is classified under the Health and Social Care Tier 2 subject category. This explains why three-in-ten learners within the Health, Public Services and Care at Tier 1 worked in Manufacturing / Engineering and Construction. Subjects classed within the Tier 1 Education and Training category are a mix of training for trainers and potential mis-classifications in the dataset which, in several cases, does not provide a specific description of content.

Of all learners whose employer sector was known trained through the Skills Bank, three-in-ten of (29%) took courses within the Marketing and Sales Tier 2 subject category and a quarter (24%) Business Management courses. Most Business Management learners (72%) worked in the Other Services sector whereas Marketing and Sales learners were proportionally distributed across all sectors (i.e. most were found in the Manufacturing / Engineering, Construction and Health sectors). Further, nearly half of all Health and Social Care learners (46%) worked outside of the Health sector taking Health and Safety training.

This infers that the main growth rationale made in Skills Bank applications concerned gaps in general business practices as opposed to occupation-specific skills deficits of employees.

### Subject by size of employer

Large employers were more likely to train their staff in Business, Administration and Law subjects compared to small and medium enterprises (SMEs). Nearly three-quarters of learners from large employers (72%) received such training compared to fewer than three-in-five for SMEs (55%).

Learners from micro- and medium-sized employers were more likely than others train in Construction, Planning and the Built Environment courses.

Micro employers were the least likely to place their employees on Health, Public Services and Care training: One-in-fourteen learners from micro employers (7%) undertook training compared to one-in-seven learners from medium-sized employers (14%) and one-in-six from large and small employers (both 17%).

### Subject by Local Authority

A third of all learners (33%) worked for employers based in the Sheffield Local Authority and received training in Tier 1 Business, Administration and Law subjects. A further one-in-ten learners of Sheffield employers (10%) undertook Health, Public Services and Care training. The same proportion of learners working for employers in Doncaster (10%) undertook Business, Administration and Law training. Across all LAs, Business, Administration and Law training was taken up by the most learners.

## Guided Learning Hours by employer characteristics

### Guided learning hours by industrial sector and employer size

As noted earlier, the average guided learning hours for Skills Bank courses was 23.9 hours with a median of 8 hours.

Figure 17 shows median and mean guided learning hours for delivered training by the industrial sector of the employer referenced in the Skills Deal. The figure does not show separate data for low incidence sectors (Transportation; Utilities / Mining) and those whose sector is unknown. Moving from least to most guided learning hours, Training Delivered in:

* The Health and IT / Media Services sectors offered to fewest average and median guided learning hours – measures were especially low for Health;
* The Manufacturing / Engineering and Other Services sectors offered guided learning hours close to the overall average; and
* The Construction and Finance sectors offered the most hours.

No major difference in average hours offered was found by the size of employer.

Figure 17: Guided learning hours of Training Delivered by selected industrial sector

Some variation in average and median guided learning hours was present by Local Authority (Figure 18). Given the large volume of training offered in Sheffield and Rotherham, it would be expected that median and average duration would be close to that of all Training Delivered. Three other LAs had more than 130 courses delivered within their borders. The median guided learning hours (GLH) of training in Barnsley and Chesterfield was higher than that for the total population. For Doncaster, median GLH was much lower. Similarly, the small number of courses delivered in the Derbyshire Dales offered low median and average guided learning hours.

Figure 18: Guided learning hours of delivered training by Local Authority

The number of guided learning hours is a measure of course content. As shown in Table 1 earlier, guided learning hours increase with qualification level. There is also an argument that the potential impact on growth for a business will be partially dependent in the relevance and quality of course content. A total of 63 Health courses offered 1 hour of guided learning. All of these have no course description, no associated qualification and no awarding body. The Tier 2 Subject classification for all of these courses is Marketing and Sales. These extent to which such Skills Deals could deliver genuine growth is questionable.

The predictive value of management information to measure Skills Bank outcomes

The prior descriptive analysis shows some variation in a number of factors relating to the delivery of Skills Bank. Three questions were tested using statistical regression:

1. Figure 16 showed that Sheffield was the main beneficiary of Training Delivered through Skills Bank. This raises a question as to whether applications from Sheffield employers were more likely to result in training compared to employers in other Local Authorities. Multiple logistic regression was used to test the null hypothesis that Local Authority does not affect whether training was delivered.
2. The data also suggests relationships between a Skills Deal subject and two factors: guided learning hours; and the number of learners listed. Multiple linear regression was used to understand if any factors held in the PwC data, including subject, explained variation in GLH and the number of learners for Training Delivered.

## Factors affecting whether or not training was delivered

### Rationale and variables used

Logistic regression is used to model a binary dependent variable: whether or not a Skills Deal led to training. In the PwC dataset other categorical, dichotomous variables can be used (or derived) to test any relationships with likelihood of training for a Skills Deal. This model used assumes the following variables may affect likelihood of training being delivered:

* Company size (Large / Medium / Small / Micro)
* Location (Sheffield / Elsewhere in SCR)
* Number of learners on training (Scale)
* Guided Learning Hours of training (Scale)
* Derived dichotomous variables for subject of training at SSA Tier 1 (Business Course / Not Business Course; Construction Course / Not Construction Course; etc.)
* If training was certified by an awarding body (Yes / No).

Low incidence SSA Tier 1 courses such as Agriculture, Arts and Media, etc. were grouped with subjectively similar subject categories containing larger numbers of courses.

### Results

The model is weak in explaining whether or not the training associated with a Skills Deal was delivered. The variables used account for 10% or 15% of the likelihood depending on which regression test is used[[7]](#footnote-7). In other words, the model does not account for 85% or 90% of the variance in delivery.

The model output is presented in Table 9. The penultimate column (Sig.) identifies whether a variable significantly influences course delivery and a p value of 0.05 or below indicates a statistically significant contribution. This is equates to at least a 95 per cent confidence level, meaning that we can be reasonably confident that the results are applicable in the wider population. In the model, the only variables making no contribution to whether or not training is delivered are the size of the employer and whether or not the employer is based in Sheffield.

The influence on whether training is delivered is expressed in the final column (Exp(B)). Values higher than 1 mean the variable is associated with an increase in training likelihood; values below 1 mean the variable is associated with a decrease. All of the significant variables in the model are associated with a lower likelihood of training, albeit many are neutral (i.e. very close to 1). All of the variables identifying subjects result in negative associations *in the model*. Similarly, applications with an associated awarding organisation were less likely to result in training.

Table 9: Logistic regression model on variables affecting delivery of training

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Variables | B | S.E. | Wald | df | Sig. | Exp(B) |
| Number of Learners | -0.004 | 0.001 | 6.550 | 1 | 0.010 | 0.996 |
| GLH | -0.005 | 0.001 | 50.356 | 1 | 0.000 | 0.995 |
| Employer Company Size | -0.033 | 0.049 | 0.453 | 1 | 0.501 | 0.967 |
| If Business Administration Law Retail or Other course(1) | -0.397 | 0.164 | 5.860 | 1 | 0.015 | 0.672 |
| If ICT, media or arts course(1) | -1.701 | 0.184 | 85.142 | 1 | 0.000 | 0.182 |
| If Construction course(1) | -0.743 | 0.159 | 21.735 | 1 | 0.000 | 0.476 |
| If Education and Training course(1) | -2.133 | 0.247 | 74.668 | 1 | 0.000 | 0.119 |
| If Engineering or Manufacturing course(1) | -1.193 | 0.193 | 38.388 | 1 | 0.000 | 0.303 |
| If the deal has an awarding organisation or not(1) | -0.676 | 0.102 | 44.153 | 1 | 0.000 | 0.509 |
| Binary variable identifying Sheffield(1) | -0.021 | 0.079 | 0.072 | 1 | 0.788 | 0.979 |
| Constant | 2.055 | 0.251 | 66.793 | 1 | 0.000 | 7.809 |

### Conclusions

Taken together, the factors included in this model only have a small influence on whether training did or did not take place. The variables in the management data that could have some relationship with whether training was delivered have limited influence and are associated with a lower likelihood of training being delivered.

There is no relationship between whether or not an employer is based in Sheffield and whether or not training is delivered in the model. The model therefore does not suggest that Sheffield employers were more likely to receive training compared to employers in other Local Authorities.

## Factors affecting guided learning hours and the number of learners trained

### Rationale and variables used

Multiple linear regression is used to assess whether a dependent scale variable changes as several other independent variables change. Two scale variables are present in the dataset:

* The guided learning hours associated with a course; and
* The number of learners trained.

Modelling these two variables is useful for several reasons. Longer guided learner hours can be viewed as a proxy for more substantive learning content. Learning hours may also say something about the quality of training and, when considered alongside the level of training, may also be a measure of difficulty.

SCR were interested in the scale of Training Delivered for which the number of learners is a useful measure. The number of learners also shows which subject areas and industrial sectors were reached by Skills Bank. The multiple linear regressions for guided learning hours, numbers of learners and the independent variables included in these models are listed in Table 10. Two subject Tiers were strongly correlated in the model: those classed under Business, Administration and Law; and Construction. The Construction variable was subsequently removed from the model to improve its predictive value.

Table 10: Variables used in the multiple linear regression models

|  |  |
| --- | --- |
| Independent variables | Linear regression dependent variables |
| Guided learning hours | Number of learners  |
| Company size (Large / Medium / Small / Micro) | ✓ | ✓ |
| Level of training (Below Level 2 / Level 2 / Level 3 or higher) | ✓ | ✓ |
| Number of learners on training (Scale) | ✓ |  |
| Guided Learning Hours of training (Scale) |  | ✓ |
| Derived dichotomous variables for subject of training at SSA Tier 1 (Business Course / Not; Construction Course / Not; etc.) | ✓ | ✓ |
| If training was certified by an awarding body (Yes / No) | ✓ | ✓ |

### Results – guided learning hours

The variables in the model accounted 22% of the variation in guided learning hours. The final column of Table 11 shows all of the variables included were significantly associated with guided learning hours at the p < 0.05 level, except the number of learners where there was no significant relationship. The direction of that relationship varies as indicated by negative or positive standardized coefficients in Column 4 of Table 11. Educational level and whether training was accredited by an awarding organisation were positively correlated with guided learning hours. This means an increase in the level (difficulty) and the presence of an awarding body resulted in an increase in hours.

Conversely, increases in all other variables led to a decrease in the number of guided learning hours. However, all relationships in the model are weak with coefficients (column 4) fairly close to zero (the closer to 1 or -1, the stronger the positive or inverse relationship). The relatively strongest relationship present was between level and hours, although this is still weak in statistical terms.

Table 11: Linear regression model on variables relating to guided learning hours

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  Analysis variables | Unstandardized Coefficients | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| (Constant) | -15.860 | 7.489 |   | -2.118 | 0.034 |
| Level category | 19.459 | 1.196 | 0.334 | 16.273 | 0.000 |
| If Business Administration Law Retail or Other course | -25.961 | 3.364 | -0.255 | -7.717 | 0.000 |
| If ICT, media or arts course | -27.641 | 4.318 | -0.161 | -6.401 | 0.000 |
| If Education and Training course | -32.361 | 7.901 | -0.080 | -4.096 | 0.000 |
| If Engineering or Manufacturing course | -14.294 | 4.546 | -0.073 | -3.145 | 0.002 |
| If Health Public Services or Care course | -41.675 | 3.721 | -0.252 | -11.201 | 0.000 |
| Number of Learners | 0.015 | 0.037 | 0.008 | 0.401 | 0.688 |
| If the deal has an awarding organisation or not | 13.807 | 3.049 | 0.125 | 4.528 | 0.000 |
| Employer Company Size | -2.859 | 1.175 | -0.046 | -2.434 | 0.015 |

### Results – number of learners

The multiple linear regression model for the number of learners based on PwC data is of very limited value and accounts for just 4% of the variation in learner numbers. The only variables with a significant relationship with learner numbers are the banded size of the employer, the presence of an awarding body and whether the course was within the Health, Public Services of Care Tier 1 area. None of these relationships were strong. The employer size relationship is inverse due to the way the variable is coded (Large = 1 up to Micro = 4). This simply means that the number of learners increases (albeit weakly) with the size of the employer.

Table 12: Linear regression model on variables relating to the number of learners

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Analysis variables  | Unstandardized Coefficients | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| (Constant) | 34.822 | 3.460 |   | 10.065 | 0.000 |
| Level category | -0.316 | 0.718 | -0.011 | -0.441 | 0.659 |
| If ICT, media or arts course | -2.973 | 1.872 | -0.034 | -1.588 | 0.112 |
| If Construction course | -0.708 | 1.935 | -0.010 | -0.366 | 0.714 |
| If Education and Training course | 0.173 | 4.335 | 0.001 | 0.040 | 0.968 |
| If Engineering or Manufacturing course | -2.423 | 2.189 | -0.024 | -1.107 | 0.269 |
| If Health Public Services or Care course | 5.216 | 2.252 | 0.062 | 2.316 | 0.021 |
| GLH | 0.005 | 0.012 | 0.009 | 0.401 | 0.688 |
| If the deal has an awarding organisation or not | -4.468 | 1.737 | -0.079 | -2.572 | 0.010 |
| Employer Company Size | -5.795 | 0.657 | -0.182 | -8.820 | 0.000 |

### Conclusions

The relationship between level and guided learning hours makes some sense as higher level courses are likely to require more tuition (of which guided learning hours is one delivery mechanism) to deliver.

As shown earlier in Table 2, most Skills Deals (55%) covered 1 or 2 learners. However, Table 3 shows that 12% of all learners undertook training on such deals. This explains the weak relationship between employer size and the number of learners listed for a delivered Skills Deal.

Overall, the management data comprises factual variables about training and a learner's employer. This data has limited value in predicting guided learning hours of the number of learners associated with individual Skills Deals delivered through the Skills Bank.

Prior qualitative reports delivered as part of this evaluation highlighted a number of operational issues faced by the contractor in delivering the Skills Bank. These included attitudinal issues that constrained delivery such as delays to the launch of Skills Bank and early barriers to training uptake. For a time-limited contractual period, these issues gain significance, especially in delivering longer-duration training. Delays would make such training increasingly difficult to agree, design and deliver to time.

Logistical and attitudinal factors are likely to account for some of the influence missing in the statistical model presented earlier. Capturing data from Skills Bank users that measure the quality and/ or perceptions of delivery processes would likely improve the analytical value of future management information.

Annex 1: Methodology

This report provides descriptive analysis of secondary data provided by the first Skills Bank contractor, PwC. Data was supplied as a single Excel worksheet that listed all Skills Deal applications over the period for which applications were open. Data was securely supplied to CFE Research in mid-September 2018.

The data required some significant processing prior to analysis which raised a series of practical issues for monitoring contracted activity. The implications for SCR are summarised in the methodological discussion of the main report. The data cleaning steps taken are described under Data Cleaning below.

Matching with other secondary data sources with a view to increasing the amount of financial and trend information was also proposed and trialled. Specifically, PwC data was matched to the FAME dataset which updates firm-level data on businesses (turnover, profit, number of employees, etc.) on a regular basis via a range of other data sources. This process matched 125 of the 606 employers listed in the PwC data. CFE and SCR agreed that the match was insufficient to warrant further analysis of these records especially as the match was biased towards large and medium-sized firms. The results of the matching are presented under the Data Matching heading later.

## Data cleaning

1. The data set was organised by individual Skills Deal applications to each named employer. A total of 3,413 records were present. Employers and courses were duplicated.
	1. The number of employers can be found through running a count on the "Employer Name" string variable. Check were made for alternative spellings and punctuation prior to counts.
	2. The number of learners for each Skills Deal application is recorded in the "Number of Learners" variable (numeric).
2. The “Sector of business” variable is included for 92% of the businesses listed. A review of the data shows some of the missing 8% of businesses were listed as individuals/sole traders. A variable was added to identify this group for exclusion in some analyses.
3. The number of employees is recorded as a banded ordinal variable: Micro; Small; Medium and Large. One record was listed as "700" and re-categorised to Large. However, there is no descriptive data that defines each category. Our starting assumption was to align to standard size bands used by ONS. We then tested that assumption using matched FAME records. This broadly confirmed:
	1. Micro-businesses as 1-9 employees;
	2. Small as 10-49;
	3. Medium as 50 to 249; and
	4. Large as 250 or higher.

The match was inexact, especially around the borders between categories. However, this is likely explained by differences in timings between when data was collected. The FAME dataset is likely to lag data collected directly by PwC at the point of a Skills Deal application as the secondary FAME data is collected from ONS / HMRC records.

1. Some of the records included in the dataset appear to be database test entries i.e. not real businesses or Skills Deals. 46 records in the original dataset were listed under the employer name “Test Account” in Bassetlaw. Searches for this company name via Companies House and search engines revealed no business operating with that name in the SCR region. These were not considered as genuine records of Skills Deals.
2. The employer list was checked to ensure descriptive variables were consistent between multiple records. Several employer-level variables required cleaning, adapting or rationalising. For example, the “Location(s) of delivery centre(s)” variable lists whether or not a course for a given employer was delivered inside the Sheffield City Region. This variable was cleaned to create a single “Out of Area” variable.
3. A total of 1,457 separate course titles are listed in the "name of course" variable. Many of these include a prefix that is the name of the employer receiving the Skills Deal. Given the significant variation in course titles, no data processing was undertaken on this variable.
4. The number of learning outcomes for each employer for each associated course is recorded in the "Number of Learners" field. The range is -1 to 733. Learning outcomes is used here on purpose because the dataset includes all applications regardless of whether learning was delivered. The two instances of a "-1" recorded were assumed to be typographical errors and translated to "1". One further record recorded a "0" for the number of learners. No change was made to this record.
5. The "Stage" of each application is listed under the variable of that name. This includes 5 categories. Two thirds (67%) of the 3,413 records describe "Training Delivered" on behalf of that employer. The other four categories identify reasons why a Skills Deal was rejected. As no metadata is included in the file, the categories are taken to mean the following:
	1. **Provider Rejected** – which is taken to mean instances where a provider was unable to deliver learning. 581 (17%) records;
	2. **Employer Rejected** – taken to mean instances where the employer has rejected the deal. 234 (7%) of records;
	3. **Skills Bank Operator Rejected** – instances where the PwC, or their algorithm developed to assess applications, led to a rejection. 230 (7%) of records; and
	4. **Investment Board Rejected** – rejections from SCR. 78 (2%) of records.
6. Three in five of all learners listed where employed by 45 employers. More than one-in-five learners worked for two employers: One public sector employer (2,540) and one health care company (2,181).
7. The "Level" field lists the NVQ level of courses associated with a Skills Deal. Two in five (40%) records were listed "Below Level 2"; 44% of the 21,956 learners listed in all applications were recorded were on sub-Level 2 courses.
8. The number of guided learning hours for each records is recorded in the GLH variable. This ranges from 0 to 1,110 (up to 600 for deals classed as Training Delivered). A zero (0) appears to cover a series of circumstances including observational training, potentially online / self-directed programmes and instances of unknown GLH. Zero is therefore classed as a valid number for GLH and subsequent analysis.
9. Two variables describe any particular award that was included as part of training. The "Awarding Organisation" listed the body responsible to accreditation of an award. There are 175 separate entries, however many of these are:
	1. Duplicates of some type (different spellings of the same awarding body, acronyms and full titles, etc.);
	2. A descriptor to record no awarding body; or
	3. Instances where more than one body was recorded. In such cases, the first body in the list was selected.

After cleaning, 87 separate categories are listed. Of these, two are not awarding bodies: "N/A", meaning an awarding body was no listed for that course; and "in house" meaning the award for provided by the provider / employer.

1. The "Qualification" variable is an open text field that provides some data on the qualification awarded. However, the field has 431 different entries. These range from a reiteration of the qualification level, awarding organisation or a little more detail on the name of the course. This data is uncleaned as other variables record any relevant information.
2. The course data also contains categorical links to ESFA data items. "SSA Tier 1" lists the top level learning aim classification and used in Individualised Learning Record (ILR) datasets and 44% of records listed fall in the Business, Administration and Law category. The other large category is Construction, Planning and the Built Environment accounting for 20% of all listed records.
3. "SSA Tier 2" is a more granular classification of course content comprising 46 separate classifications in the PwC data (there are a total of 49 in the full ESFA dataset). A quarter (24%) of all records were classed under Marketing and Sales; a further 16% under Building and Construction and one-in-ten (10%) were Business Management courses.
4. The picture for the number of individual learners (or, more correctly, learning outcomes for all records as one learner may benefit from more than one course) is slightly different. Whilst Marketing and Sales accounts for most learners (one-in-five; 20%), 19% are listed on Business Management courses, one-in-seven (16%) on Health and Social Care and one-in-ten (11%) on Building and Construction.

## Data matching

The PwC data included a variable listing an employer's Companies House number. This record was provided as a numeric which led to the removal of some leading zeroes on the Companies House number. This variable was therefore cleaned to allow matching to FAME data. In cases with Companies House number was present, but unmatched, manual tracing was also undertaken with FAME to improve the match rate using employer name, building numbers of street addresses or VAT numbers instead of Companies House number.

A total of 125 matches were made. There was some significant bias in the match rate, especially by company size. This is likely a result of the data sources used to create the FAME dataset. For example, the Inter-Departmental Business Register (IDBR) is used as a foundation for the FAME dataset. IDBR is itself reliant on government data such VAT and PAYE records which means newer and/or smaller firms are less likely to be present.

The overall bias in matching by size of business size (Table below) is the main rationale for deciding against any attempts to analysis the impact of Skills Bank via secondary data.

Table 13: Data matching success rates by size of employer

|  |  |  |
| --- | --- | --- |
|   | Population | Matched |
| Size of business | Employers (n) | Size % | Employers (n) | Size % | Success % |
| Large | 34 | 6% | 24 | 19% | 71% |
| Medium | 127 | 21% | 69 | 55% | 54% |
| Small | 253 | 42% | 31 | 1% | 12% |
| Micro | 192 | 32% | 1 | 25% | 1% |
| Total | 606 |   | 125 |   |   |

Table 14: Data matching success rates by PwC industrial sector category

|  |  |  |
| --- | --- | --- |
|   | Population | Matched |
| Sector (PwC) | Employers (n) | Sector % | Employers (n) | Sector % | Success % |
| Aeronautics and Defence | 2 | 0% |   | 0% | 0% |
| Alternative Investment Instruments | 1 | 0% |   | 0% | 0% |
| Automotive and Parts | 8 | 1% | 1 | 1% | 13% |
| Building and Materials | 130 | 21% | 22 | 18% | 17% |
| Commercial Transportation | 4 | 1% | 3 | 2% | 75% |
| Electricity Generation and Distribution | 1 | 0% |   | 0% | 0% |
| Electronic & Electrical Equipment | 12 | 2% | 4 | 3% | 33% |
| Engineering Products | 71 | 12% | 25 | 20% | 35% |
| Financials | 13 | 2% |   | 0% | 0% |
| Food Products | 9 | 1% | 3 | 2% | 33% |
| Fossil Fuels and Distribution | 1 | 0% | 1 | 1% | 100% |
| Health Care and Related Services | 38 | 6% | 5 | 4% | 13% |
| Household Utilities | 1 | 0% |   | 0% | 0% |
| Industrial Chemicals | 1 | 0% | 1 | 1% | 100% |
| Industrials | 8 | 1% | 5 | 4% | 63% |
| Insurance | 2 | 0% |   | 0% | 0% |
| IT Hardware | 2 | 0% | 1 | 1% | 50% |
| IT Services | 28 | 5% | 1 | 1% | 4% |
| Leisure Products | 5 | 1% |   | 0% | 0% |
| Media | 7 | 1% |   | 0% | 0% |
| Metals | 11 | 2% | 2 | 2% | 18% |
| Mining | 1 | 0% |   | 0% | 0% |
| Other | 143 | 24% | 35 | 28% | 24% |
| Property | 5 | 1% |   | 0% | 0% |
| Retailers | 22 | 4% | 4 | 3% | 18% |
| Support | 10 | 2% | 3 | 2% | 30% |
| Telecommunications | 5 | 1% | 1 | 1% | 20% |
| Tourism and Leisure | 19 | 3% | 4 | 3% | 21% |
| #N/A | 46 | 8% | 4 | 3% | 9% |
| Total | 606 |   | 125 |   |   |

Table 15: Data matching success rates by Local Authority Area

|  |  |  |
| --- | --- | --- |
|   | Population | Matched |
| Local Authority  | Employers (n) | LA % | Employers (n) | LA % | Success % |
| Barnsley | 64 | 11% | 17 | 14% | 27% |
| Bassetlaw | 15 | 2% | 1 | 1% | 7% |
| Bolsover | 15 | 2% | 3 | 2% | 20% |
| Chesterfield | 41 | 7% | 4 | 3% | 10% |
| Derbyshire Dales | 14 | 2% | 2 | 2% | 14% |
| Doncaster | 88 | 15% | 17 | 14% | 19% |
| North East Derbyshire | 21 | 3% | 4 | 3% | 19% |
| Rotherham | 84 | 14% | 21 | 17% | 25% |
| Sheffield | 264 | 44% | 56 | 45% | 21% |
| Total | 606 |   | 125 |   |   |

Annex 2: Data tables

The data tables document the number of employers and learners by a number of different sub-groups. Data is shown for the following four categories:

1. Population – a count of all records listed in the management information;
2. Eligible employers / learners – a count that excludes records which are likely to be sole-traders;
3. Eligible and training delivered – employers / learners classed as "Training Delivered" in the stage variable excluding those suspected to be sole traders; and
4. All training delivered – all employers / learners classed as "Training Delivered" in the stage variable.

## Employer data

Table 16: Size of employers listed

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Size profile | Population | Eligible  | Eligible and "Training Delivered" | All "Training Delivered" |
|   | (n) | Size % | (n) | Size % | (n) | Size % | (n) | Size % |
| Large | 34 | 6% | 34 | 6% | 30 | 6% | 30 | 6% |
| Medium | 127 | 21% | 127 | 22% | 121 | 23% | 121 | 22% |
| Small | 253 | 42% | 250 | 28% | 226 | 27% | 228 | 30% |
| Micro | 192 | 32% | 163 | 44% | 138 | 44% | 162 | 42% |
| **Total** | **606** |  | **574** |  | **515** |  | **541** |  |

Table 17: Sector of employers listed

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sector | Population | Eligible | Eligible and "Training Delivered" | All "Training Delivered" |
| (n) | Sector % | (n) | Sector % | (n) | Sector % | (n) | Sector % |
| Construction | 130 | 21% | 119 | 21% | 109 | 21% | 119 | 22% |
| Finance | 16 | 3% | 15 | 3% | 13 | 3% | 14 | 3% |
| Health | 38 | 6% | 35 | 6% | 31 | 6% | 34 | 6% |
| IT / Media Services | 40 | 7% | 40 | 7% | 35 | 7% | 35 | 6% |
| Manufacturing / Engineering | 129 | 21% | 126 | 22% | 119 | 23% | 121 | 22% |
| Other Services | 46 | 8% | 44 | 8% | 37 | 7% | 37 | 7% |
| Transportation | 4 | 1% | 4 | 1% | 3 | 1% | 3 | 1% |
| Utilities / mining | 4 | 1% | 4 | 1% | 4 | 1% | 4 | 1% |
| Unknown | 199 | 33% | 187 | 33% | 164 | 32% | 174 | 32% |
| **Total** | **606** |  | **574** |  | **515** |  | **541** |  |

Table 18: Local authority in which employer is based

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Local Authority  | Population | Eligible | Eligible and "Training Delivered" | All "Training Delivered" |
| (n) | LA % | (n) | LA % | (n) | LA % | (n) | LA % |
| Barnsley | 64 | 11% | 64 | 11% | 59 | 11% | 59 | 11% |
| Bassetlaw | 15 | 2% | 12 | 2% | 11 | 2% | 14 | 3% |
| Bolsover | 15 | 2% | 15 | 3% | 11 | 2% | 11 | 2% |
| Chesterfield | 41 | 7% | 41 | 7% | 36 | 7% | 36 | 7% |
| Derbyshire Dales | 14 | 2% | 14 | 2% | 14 | 3% | 14 | 3% |
| Doncaster | 88 | 15% | 81 | 14% | 77 | 15% | 82 | 15% |
| North East Derbyshire | 21 | 3% | 20 | 3% | 18 | 3% | 19 | 4% |
| Rotherham | 84 | 14% | 79 | 14% | 67 | 13% | 70 | 13% |
| Sheffield | 264 | 44% | 248 | 43% | 222 | 43% | 236 | 44% |
| **Total** | **606** |  | **574** |  | **515** |  | **541** |  |

Table 19: Employers' applications by outcome

|  |  |  |
| --- | --- | --- |
| Application outcome | Population | Eligible |
| (n) | Outcome % | (n) | Outcome % |
| Employer Rejected | 114 | 19% | 113 | 20% |
| Investment Board Rejected | 32 | 5% | 28 | 5% |
| Provider Rejected | 223 | 37% | 216 | 38% |
| Skills Bank Operator Rejected | 102 | 17% | 97 | 17% |
| Training Delivered | 541 | 89% | 515 | 90% |
| **Total** | **606** |  | **574** |  |

## Learner data

Table 20: Learner counts based on size of the employer

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Learners profile | Population | Eligible | Eligible and "Training Delivered" | All "Training Delivered" |
| Employees (n) | Employees % | Employees (n) | Employees % | Learners (n) | Learners % | Learners (n) | Learners % |
| Large | 7210 | 33% | 7210 | 33% | 3846 | 28% | 3846 | 28% |
| Medium | 6404 | 29% | 6404 | 29% | 4384 | 32% | 4384 | 32% |
| Small | 7089 | 32% | 6935 | 32% | 4493 | 33% | 4605 | 33% |
| Micro | 1253 | 6% | 1164 | 5% | 852 | 6% | 918 | 7% |
| **Total** | **21956** |  | **21713** |  | **13575** |  | **13753** |  |

Table 21: Learner counts based on sector of the employer

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Learners profile  | Population | Eligible | Eligible and "Training Delivered" | All "Training Delivered" |
| Employees (n) | Employees % | Employees (n) | Employees % | Learners (n) | Learners % | Learners (n) | Learners % |
| Construction | 3468 | 16% | 3429 | 16% | 2317 | 17% | 2353 | 17% |
| Finance | 252 | 1% | 131 | 1% | 94 | 1% | 186 | 1% |
| Health | 4153 | 19% | 4142 | 19% | 1871 | 14% | 1881 | 14% |
| IT / Media Services | 976 | 4% | 976 | 4% | 779 | 6% | 779 | 6% |
| Manufacturing / Engineering | 3431 | 16% | 3406 | 16% | 2469 | 18% | 2473 | 18% |
| Other Services | 3796 | 17% | 3792 | 17% | 2650 | 20% | 2650 | 19% |
| Transportation | 478 | 2% | 478 | 2% | 21 | 0% | 21 | 0% |
| Utilities / mining | 203 | 1% | 203 | 1% | 140 | 1% | 140 | 1% |
| Unknown | 5195 | 24% | 5152 | 24% | 3234 | 24% | 3270 | 24% |
| **Total** | **21952** |  | **21709** |  | **13575** |  | **13753** |  |

Table 22: Learner counts based on local authority in which the employer is based

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Learners profile  | Population | Eligible | Eligible and "Training Delivered" | All "Training Delivered" |
| Employees (n) | Employees % | Employees (n) | Employees % | Learners (n) | Learners % | Learners (n) | Learners % |
| Barnsley | 1695 | 8% | 1695 | 8% | 1069 | 8% | 1069 | 8% |
| Bassetlaw | 293 | 1% | 169 | 1% | 77 | 1% | 172 | 1% |
| Bolsover | 286 | 1% | 286 | 1% | 221 | 2% | 221 | 2% |
| Chesterfield | 878 | 4% | 878 | 4% | 747 | 6% | 747 | 5% |
| Derbyshire Dales | 333 | 2% | 333 | 2% | 307 | 2% | 307 | 2% |
| Doncaster | 3483 | 16% | 3465 | 16% | 1951 | 14% | 1965 | 14% |
| North East Derbyshire | 325 | 1% | 320 | 1% | 190 | 1% | 193 | 1% |
| Rotherham | 2113 | 10% | 2085 | 10% | 1569 | 12% | 1594 | 12% |
| Sheffield | 12550 | 57% | 12482 | 57% | 7444 | 55% | 7485 | 54% |
| **Total** | **21956** |  | **21713** |  | **13575** |  | **13753** |  |

Table 23: Learner counts in applications by outcome

|  |  |  |
| --- | --- | --- |
| Learners profile | Population | Eligible |
| Employees (n) | Employees % | Employees (n) | Employees % |
| Employer Rejected | 982 | 4% | 978 | 5% |
| Investment Board Rejected | 2970 | 14% | 2953 | 14% |
| Provider Rejected | 2327 | 11% | 2308 | 11% |
| Skills Bank Operator Rejected | 1924 | 9% | 1899 | 9% |
| Training Delivered | 13753 | 63% | 13575 | 63% |
| **Total** | **21956** |  | **21713** |  |

Table 24: Learners by Tier 1 subject – applications and training delivered

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  SSA Tier 1 subject | Population | Eligible | Eligible and "Training Delivered" | All "Training Delivered" |
| Employees (n) | Employees % | Employees (n) | Employees % | Learners (n) | Learners % | Learners (n) | Learners % |
| Agriculture, horticulture and animal care | 80 | 0% | 79 | 0% | 33 | 0% | 33 | 0% |
| Arts, media and publishing | 124 | 1% | 118 | 1% | 45 | 0% | 47 | 0% |
| Business, administration and law | 9905 | 45% | 9789 | 45% | 8130 | 60% | 8237 | 60% |
| Community development | 1 | 0% |  | 0% |  | 0% | 1 | 0% |
| Construction, planning and the built environment | 2880 | 13% | 2828 | 13% | 1523 | 11% | 1558 | 11% |
| Education and training | 865 | 4% | 856 | 4% | 207 | 2% | 208 | 2% |
| Engineering and manufacturing technologies | 1879 | 9% | 1855 | 9% | 769 | 6% | 777 | 6% |
| Health, public services and care | 4740 | 22% | 4736 | 22% | 2108 | 16% | 2111 | 15% |
| Information and communication technology | 1190 | 5% | 1162 | 5% | 609 | 4% | 630 | 5% |
| Languages, literature and culture | 2 | 0% | 2 | 0% |  | 0% |  | 0% |
| Leisure, travel and tourism | 32 | 0% | 30 | 0% | 18 | 0% | 18 | 0% |
| Preparation for life and work | 104 | 0% | 104 | 0% | 46 | 0% | 46 | 0% |
| Retail and commercial enterprise | 152 | 1% | 152 | 1% | 87 | 1% | 87 | 1% |
| #N/A | 2 | 0% | 2 | 0% |   | 0% |   | 0% |
| **Total** | **21956** |  | **21713** |  | **13575** |  | **13753** |  |

Table 25: Learners by Tier 2 subject – training delivered only

| SSA Tier 2 subject | Eligible | Population |
| --- | --- | --- |
| Target employees | Subject % | Target employees | Subject % |
| Marketing and sales | 4377 | 20% | 4460 | 21% |
| Business management | 2841 | 13% | 2851 | 13% |
| Health and social care | 1378 | 6% | 1379 | 6% |
| Building and construction | 1318 | 6% | 1336 | 6% |
| Complementary health studies | 730 | 3% | 732 | 3% |
| Engineering | 641 | 3% | 645 | 3% |
| Accounting and finance | 595 | 3% | 608 | 3% |
| ICT for users | 422 | 2% | 430 | 2% |
| Communications technology | 186 | 1% | 199 | 1% |
| Administration | 148 | 1% | 148 | 1% |
| Teaching and lecturing | 140 | 1% | 141 | 1% |
| Construction crafts | 134 | 1% | 134 | 1% |
| Manufacturing technologies | 122 | 1% | 126 | 1% |
| Customer service | 107 | 0% | 108 | 0% |
| Architecture | 71 | 0% | 88 | 0% |
| Training to provide learning support | 67 | 0% | 67 | 0% |
| Business | 61 | 0% | 61 | 0% |
| Hospitality and catering | 50 | 0% | 50 | 0% |
| Media and communication | 45 | 0% | 47 | 0% |
| Forestry | 30 | 0% | 30 | 0% |
| Community learning | 26 | 0% | 26 | 0% |
| Warehousing and distribution | 25 | 0% | 25 | 0% |
| Employability training | 20 | 0% | 20 | 0% |
| Public services (Leisure, travel and tourism) | 15 | 0% | 15 | 0% |
| Beauty therapy | 7 | 0% | 7 | 0% |
| Motor vehicle | 6 | 0% | 6 | 0% |
| Retailing and wholesaling | 5 | 0% | 5 | 0% |
| Agriculture | 3 | 0% | 3 | 0% |
| Travel and tourism | 2 | 0% | 2 | 0% |
| ICT for practitioners | 1 | 0% | 1 | 0% |
| Law and legal services | 1 | 0% | 1 | 0% |
| Sport | 1 | 0% | 1 | 0% |
| Building services |  | 0% |  | 0% |
| Call centre operations |  | 0% |  | 0% |
| Community development |  | 0% | 1 | 0% |
| Early years and playwork |  | 0% |  | 0% |
| Environmental conservation |  | 0% |  | 0% |
| Hairdressing and beauty therapy |  | 0% |  | 0% |
| Horticulture and forestry |  | 0% |  | 0% |
| Independent living and leisure skills |  | 0% |  | 0% |
| Medicine and dentistry |  | 0% |  | 0% |
| Modern foreign languages |  | 0% |  | 0% |
| Public services (Health, public services and care) |  | 0% |  | 0% |
| Publishing and information services |  | 0% |  | 0% |
| Sport, leisure and recreation |  | 0% |  | 0% |
| Transportation operations and maintenance |  | 0% |  | 0% |
| **Total** | **13575** |  | **13753** |  |

Table 26: Learners by level of course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Learners profile | Population | Eligible | Eligible and "Training Delivered" | All "Training Delivered" |
| Employees (n) | Employees % | Employees (n) | Employees % | Learners (n) | Learners % | Learners (n) | Learners % |
| Below Level 2 | 9693 | 44% | 9588 | 44% | 6172 | 45% | 6262 | 46% |
| Level 2 | 7550 | 34% | 7504 | 35% | 4475 | 33% | 4497 | 33% |
| Level 3 | 2720 | 12% | 2655 | 12% | 1539 | 11% | 1593 | 12% |
| Level 4 | 1839 | 8% | 1814 | 8% | 1333 | 10% | 1344 | 10% |
| Level 5 | 54 | 0% | 53 | 0% | 14 | 0% | 14 | 0% |
| Level 6 | 64 | 0% | 64 | 0% | 34 | 0% | 34 | 0% |
| Level 7 | 16 | 0% | 16 | 0% |  | 0% |  | 0% |
| Level 8 | 18 | 0% | 17 | 0% | 8 | 0% | 9 | 0% |
| #N/A | 2 | 0% | 2 | 0% |   | 0% |   | 0% |
| **Total** | **21956** |  | **21713** |  | **13575** |  | **13753** |  |

## Guided learning hours

Table 27: Mean and median guided learning hours of training delivered by Tier 1 subject

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Tier 1 Subject | Mean | Median | N | Std. Deviation | Minimum | Maximum | % of deals |
| Business, administration and law | 12.3 | 1.0 | 1179 | 26.9 | 1.0 | 288.0 | 52% |
| Construction, planning and the built environment | 54.0 | 24.0 | 401 | 95.0 | 0.0 | 600.0 | 18% |
| Health, public services and care | 23.7 | 14.0 | 240 | 33.7 | 0.0 | 390.0 | 11% |
| Information and communication technology | 15.8 | 8.0 | 196 | 22.0 | 2.0 | 245.0 | 9% |
| Engineering and manufacturing technologies | 42.6 | 30.0 | 165 | 47.1 | 0.0 | 320.0 | 7% |
| Education and training | 33.0 | 24.0 | 37 | 33.2 | 5.0 | 210.0 | 2% |
| Arts, media and publishing | 9.3 | 8.0 | 24 | 3.1 | 8.0 | 20.0 | 1% |
| Retail and commercial enterprise | 20.1 | 15.0 | 20 | 16.3 | 5.0 | 63.0 | 1% |
| Agriculture, horticulture and animal care | 23.1 | 21.0 | 14 | 8.7 | 12.0 | 38.0 | 1% |
| Leisure, travel and tourism | 80.8 | 31.5 | 4 | 106.3 | 20.0 | 240.0 | 0% |
| Preparation for life and work | 38.7 | 40.0 | 3 | 18.0 | 20.0 | 56.0 | 0% |
| Community development | 24.0 | 24.0 | 1 |   | 24.0 | 24.0 | 0% |
| **Total** | **23.9** | **8.0** | **2284** | **50.8** | **0.0** | **600.0** | **100%** |

Table 28: Mean and median guided learning hours of training delivered by Tier 2 subject

| Tier 2 Subject | Mean | Median | N | Std. Deviation | Minimum | Maximum | % of deals |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Marketing and sales | 2.1 | 1.0 | 788 | 5.7 | 1.0 | 70.0 | 35% |
| Building and construction | 56.3 | 23.5 | 334 | 99.5 | 0.0 | 600.0 | 15% |
| Business management | 30.6 | 22.5 | 210 | 30.0 | 4.0 | 210.0 | 9% |
| Health and social care | 22.1 | 20.0 | 167 | 24.2 | 0.0 | 96.0 | 7% |
| Accounting and finance | 39.6 | 24.0 | 145 | 47.5 | 6.0 | 288.0 | 6% |
| Engineering | 41.1 | 30.0 | 139 | 46.5 | 0.0 | 320.0 | 6% |
| Communications technology | 13.1 | 6.0 | 99 | 25.8 | 2.0 | 245.0 | 4% |
| ICT for users | 18.4 | 8.0 | 96 | 17.2 | 7.0 | 80.0 | 4% |
| Complementary health studies | 27.3 | 14.0 | 73 | 49.0 | 4.0 | 390.0 | 3% |
| Architecture | 45.2 | 25.0 | 43 | 73.3 | 0.5 | 280.0 | 2% |
| Teaching and lecturing | 38.0 | 36.0 | 25 | 39.0 | 5.0 | 210.0 | 1% |
| Construction crafts | 37.6 | 16.0 | 24 | 57.9 | 8.0 | 183.0 | 1% |
| Media and communication | 9.3 | 8.0 | 24 | 3.1 | 8.0 | 20.0 | 1% |
| Manufacturing technologies | 56.2 | 40.0 | 23 | 51.7 | 4.0 | 154.0 | 1% |
| Customer service | 11.3 | 8.0 | 20 | 6.1 | 7.0 | 21.0 | 1% |
| Business | 13.8 | 15.0 | 13 | 7.0 | 6.0 | 32.0 | 1% |
| Forestry | 23.0 | 21.0 | 12 | 8.0 | 14.0 | 38.0 | 1% |
| Training to provide learning support | 22.6 | 24.0 | 12 | 10.4 | 7.5 | 40.0 | 1% |
| Warehousing and distribution | 19.4 | 24.0 | 9 | 8.2 | 5.0 | 24.0 | 0% |
| Hospitality and catering | 8.2 | 9.0 | 5 | 1.3 | 6.0 | 9.0 | 0% |
| Beauty therapy | 15.0 | 15.0 | 4 | 0.0 | 15.0 | 15.0 | 0% |
| Motor vehicle | 12.0 | 12.0 | 3 | 0.0 | 12.0 | 12.0 | 0% |
| Administration | 113.5 | 113.5 | 2 | 159.1 | 1.0 | 226.0 | 0% |
| Agriculture | 23.5 | 23.5 | 2 | 16.3 | 12.0 | 35.0 | 0% |
| Community learning | 48.0 | 48.0 | 2 | 11.3 | 40.0 | 56.0 | 0% |
| Retailing and wholesaling | 63.0 | 63.0 | 2 | 0.0 | 63.0 | 63.0 | 0% |
| Travel and tourism | 27.5 | 27.5 | 2 | 10.6 | 20.0 | 35.0 | 0% |
| Community development | 24.0 | 24.0 | 1 |   | 24.0 | 24.0 | 0% |
| Employability training | 20.0 | 20.0 | 1 |   | 20.0 | 20.0 | 0% |
| ICT for practitioners | 30.0 | 30.0 | 1 |   | 30.0 | 30.0 | 0% |
| Law and legal services | 80.0 | 80.0 | 1 |   | 80.0 | 80.0 | 0% |
| Public services (Leisure, travel and tourism) | 28.0 | 28.0 | 1 |   | 28.0 | 28.0 | 0% |
| Sport | 240.0 | 240.0 | 1 |   | 240.0 | 240.0 | 0% |
| **Total** | **23.9** | **8.0** | **2284** | **50.8** | **0.0** | **600.0** |  |

1. As described on the Office for National Statistics website: <https://www.ons.gov.uk/methodology/classificationsandstandards/ukstandardindustrialclassificationofeconomicactivities/uksic2007> [↑](#footnote-ref-1)
2. PwC (2016) Sheffield City Region Skills Bank Marketing and Communications Strategy. PowerPoint slide pack internal supporting documentation. Slide 12. [↑](#footnote-ref-2)
3. Source: the ONS business data microsite – 2017 data chosen for comparability with Skills Bank operational period: <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/ukbusinessactivitysizeandlocation> [↑](#footnote-ref-3)
4. Most in the Derby, Derbyshire, Nottingham and Nottinghamshire LEP except Barnsley which is also part of the Leeds LEP. [↑](#footnote-ref-4)
5. From Ofqual Handbook: <https://www.gov.uk/guidance/ofqual-handbook/section-j-interpretation-and-definitions>. Accessed: 10 April 2019. [↑](#footnote-ref-5)
6. PwC (2016) Skills Bank Demand Aggregation: How It Works. PowerPoint slide pack internal supporting documentation. [↑](#footnote-ref-6)
7. The Cox & Snell R-Squared model = 10.4% of variation; The Nagelkerke R-Squared 14.5%. [↑](#footnote-ref-7)