

Segmentation of employers on the basis of their training behaviour

EKOS Consulting

Research Report
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behaviour*

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Executive Summary

Background

This report describes the results of a segmentation analysis of employers according to their training behaviour, using data from the National Employer Skills Survey (NESS) 2005. Previous work has shown that larger employers are more likely to train their staff and that employer training behaviour and skills needs differ by sector. The purpose of a segmentation analysis is to sort employers into groups, or clusters, so that the degree of association is strong between members of the same cluster and weak between members of different clusters. By taking into account a large number of aspects of employer training behaviour and characteristics, and segmenting on this basis, the resulting clusters should help to identify whether there are policy gaps, whereby some employers may not be engaged by existing policies. The grouping of employers by characteristics should also inform future policy development by developing an alternative description of employer training behaviour which is not based only on size and sector.

Characteristics of Trainers and Non-Trainers

Based on the NESS 2005, 65% of employers had provided some training to some of their workforce during the previous 12 months (Trainers) and 35% had not (Non-Trainers). Comparing the characteristics of Trainers and Non-Trainers shows that:

- Trainers are much more likely to identify skills gaps in their existing workforce, to face skills-shortage vacancies, and to recruit young people direct from education;
- Trainers are more sophisticated companies than Non-Trainers - based on the much higher incidence of formal business and training plans. This partly explains why Trainers are so much more likely than Non-Trainers to identify skills gaps and skills-shortage vacancies – they have a deeper understanding of their business and what it takes to be successful.

The Clusters

Trainers

The report identifies nine Trainer clusters, which are grouped into three broad categories according to the volume of training (average days training per trainee) and workforce coverage (proportion of the workforce trained). The three categories are:

- **Committed Trainers** - above average coverage and volume. There are five clusters in this category, accounting for 37.4% of all employers.
- **Selective Trainers - Low Volume** - below average coverage and volume. There are two clusters in this category, accounting for 10.4% of all employers.
- **Selective Trainers - High Volume** - below average coverage and above average volume. There are two clusters in this category, accounting for 17.3% of all employers.

Employers in the Committed Trainers clusters have very different characteristics. Taking the two largest Committed Trainer clusters, 'Professional Services' and 'Low Skilled Workforce and Young Recruits', the former contains a high proportion of professional service employers with many professional staff, whereas the latter has a high proportion of consumer services businesses with many lower skilled staff (many of whom are young people). Employers in these clusters understand the benefits of training and programmes such as Train to Gain would appear to be well suited to their needs and the needs of the economy more widely. However, employers in both clusters have a low propensity to train staff to national qualifications (which has benefits to the wider economy in terms of labour market flexibility) and Train to Gain should help to increase this.

In contrast, employers in the next largest Committed Trainers cluster, 'Personal Services', have a very high propensity to train staff to national qualifications, probably reflecting the high level of regulation in some sectors (e.g. Childcare). The intensive training provided to staff by employers in this cluster raises the question of whether stricter regulation of employee qualifications might be desirable in other sectors.

For all four of the Selective Trainer clusters, the incidence of business and training plans is lower than for Committed Trainers. Employers in these clusters might benefit from assistance in developing business planning processes which incorporate or lead on to more sophisticated consideration of training needs. Many staff in these clusters did not receive training during the previous 12 months.

Non-Trainers

There are four Non-Trainer clusters accounting for 35% of all employers. In all Non-Trainer clusters, the most common reason cited for not training is that all staff are fully proficient, which suggests a lack of demand for training and a potentially difficult task to create demand through policy interventions. Many employers in these clusters might require intensive support to develop business and planning processes – which once established should lead on to identification of training needs. For example, only 29% of employers in the 'Smaller and Inexperienced' cluster have a formal business plan. These employers are likely to have unrecognised skills gaps and to enable future growth would probably benefit from training in basic business processes: ICT, accounting, procurement etc. BusinessLink and/or other business support organisations might be able to interest these employers in training, as part of a broader package of business support.

Employers in the 'Facing Practical Barriers' cluster do appear to want to train, but face barriers such as a lack of time. These employers would appear to be a ready market for Train to Gain, which by sourcing flexible training provision should be able to help employers overcome these barriers. However, this cluster contains less than 10% of Non Trainer employers (just 3% of all employers).

Summary of Clusters

The table below summarises the thirteen clusters.

Cluster Category and Name	Distinguishing Features	% Employers
Committed Trainers		
Professional Services	High proportion of staff in Professional occupations. A high proportion of staff are trained and average spend per trainee is high.	13.3%
Low Skilled Workforce and Young Recruits	A high proportion of staff in low skilled occupations. A high propensity to recruit young people direct from education. High volume of training.	12.3%
Personal Services	High proportion of staff in Personal Service occupations. Almost all staff are trained and the majority receive training to national qualifications.	4.3%
Skills Shortage Vacancies and Young Recruits	Very high proportion of employers reporting skills shortage vacancies. Also a high incidence of skills gaps. An above average proportion of employers recruit young people direct from education and train staff to national qualifications.	4.1%
Skills Gaps and Young Recruits	A high proportion of employers recruit young people. All employers report skills gaps. A high proportion of the workforce is trained and training volumes are high.	3.4%
Selective Trainers – Low Volume		
Off the Job Training	Workforce coverage is the lowest of all Trainer clusters. Training volumes are low. Training is almost always provided off the job.	7.4%
Low Skilled Workforce	Employers in this cluster have a low skilled workforce and provide little training.	3.0%
Selective Trainers – High Volume		
On the Job Training	Training is almost always provided on the job. A high proportion of staff are in sales/customer service roles - most are likely to be qualified to level 1 or 2.	13.7%
High Skilled Workforce	A high skilled workforce and a high volume of off the job training. Above average use of FE colleges. The proportion of staff receiving training to national qualifications is above average.	3.6%
Non-Trainers Cluster Name		
Smaller and inexperienced	Small businesses, many of which are likely to be in the early stages of development. A high proportion of employees in high skilled occupations - particularly Managers and Skilled Trades.	16.5%
Larger and experienced	Larger businesses with a high proportion of Professional staff, which suggests a need for CPD training.	10.4%
Low Skilled Workforce	Few high or medium skilled employees - three quarters of the workforce are in low skilled occupations. One fifth of employers are in the Hotels and Restaurants sector.	5.1%
Facing Practical Barriers	Many employers in the cluster recognise a need for training but are held back by practical constraints, such as a lack of time, inappropriate or badly timed courses, and the high cost of external courses.	3.0%

1. Introduction

1.1 The Research Brief

EKOS was commissioned by DfES to produce a segmentation of employers based on the data collected in the National Employer Skills Survey (NESS) 2005. The brief requires the employer population to be segmented in terms of its propensity to train, and the nature and extent of that training.

The purpose of a segmentation analysis is to sort cases (in this case employers) into groups, or clusters, so that the degree of association is strong between members of the same cluster and weak between members of different clusters. The degree of association can relate to multiple characteristics and statistical techniques such as Cluster Analysis are employed to sort cases into clusters.

Segmentation analysis is often used in marketing studies by retailers to group customers into distinctive segments. This then allows a company to consider how best to design alternative product/price bundles to attract customers in the various segments. In this research, the objective is to define employer clusters based on their training behaviour and other characteristics.

It is well known that larger employers are more likely to train and that employer behaviour and skills needs differ by sector. Sector Skills Councils were established to address the specific skills and training needs of employers in major industry sectors. The rationale for a segmentation analysis is similar to that described for retailers – by taking into account a number of aspects of employer training behaviour and characteristics, and segmenting employers on this basis, the resulting clusters should help to identify whether there are policy gaps, whereby some employers may not be well served by existing policies. The grouping of employers by characteristics should also inform future policy development by developing an alternative description of employer training behaviour which is not based on size and sector.

1.2 Policy Background

Skills policy has developed rapidly since the publication of the Skills Strategy White Paper in July 2003. A further White Paper followed in March 2005 and the Leitch Review of UK skills needs is ongoing at the time of writing. The December 2005 Interim Report from the Leitch Review stresses the importance of skills for the UK economy and its weak position relative to many competitor countries.

The two primary aims of skills policy are to increase the competitiveness of the UK economy by:

- Increasing the demand for skills from employers and individuals. There is insufficient demand for higher levels of skill in the UK and there is a need to engage companies not doing much/any training.
- Reforming the supply of skills training, making it responsive to that increased demand and more focused on the skills needed for employability. The recent Further Education

Reform White Paper calls for the FE system to focus more on the needs of employers and employability skills.

A major policy initiative designed to address insufficient employer demand for training is Train to Gain. This programme is being rolled out nationally across England and its development has been based on the Employer Training Pilots. Train to Gain aims to boost employer demand for skills and training by offering free and impartial advice tailored to individual businesses. Train to Gain advisers work with businesses to: identify their skills needs, now and in the future; identify the most relevant training providers and courses; and access any relevant financial support.

1.3 Our Method

Overview

The analysis is based on the National Employer Skills Survey 2005. NESS¹ is a national telephone survey which asks employers a series of detailed questions about the training they have undertaken in the past twelve months, the skills gaps in their existing workforce and any difficulties they encounter in external recruitment. For employers that identify skills gaps in their workforce or that have difficulty recruiting because applicants lack necessary skills, the survey asks follow-up questions about the type of skills that are lacking.

The 2005 survey includes responses from over 73,000 employers. In 2005, a smaller follow-on survey of just over 7,000 employers that had provided training was also undertaken, to gather details of the cost of training. Companies taking part in the follow-up survey were drawn from a sample frame of 35,000 companies who expressed willingness during the NESS survey to participate in a follow-up survey. Analysis of the characteristics of companies that provided training from the full survey and the follow-up survey indicates that the two groups of Trainers have similar characteristics with regards to size, regional, and sector distribution.

Two segmentation analyses were undertaken: one on establishments that had provided training to staff during the past 12 months (referred to as Trainers); and one on establishments that had not provided training during the past 12 months (referred to as Non-Trainers). The principal reason for undertaking two analyses is the different variables available for Trainer and Non-Trainer employers. For example, for Trainers, we have data on the proportion of the workforce trained and average days training per trainee. For Non-Trainers, we have data on the reasons for not training.

For Trainers, we conducted the analysis on the smaller follow-on survey. This allowed us to include cost of training indicators in the segmentation analysis. We were able to match employers across the two samples so that a full set of data was available for the 7,000 employers in the follow-up survey.

¹ The full report on the 2005 NESS and the questionnaire are available from the national LSC website. <http://readingroom.lsc.gov.uk/Lsc/2006/research/commissioned/nat-nationalemployersskillssurvey2005mainreport-re-june2006.pdf>

Statistical Method

The segmentation analysis was conducted using the Cluster Analysis technique. Cluster Analysis is a statistical technique which is designed to allocate a large number of cases into groups based on the similarity of characteristics. As well as working with a large number of cases, it is also able to take into account a large number of characteristics.

In essence, the Cluster Analysis technique allocates cases to clusters to minimise the differences in characteristics between cases within the cluster and maximise differences with cases outside the cluster.

Details of the statistical method are at Appendix 1.

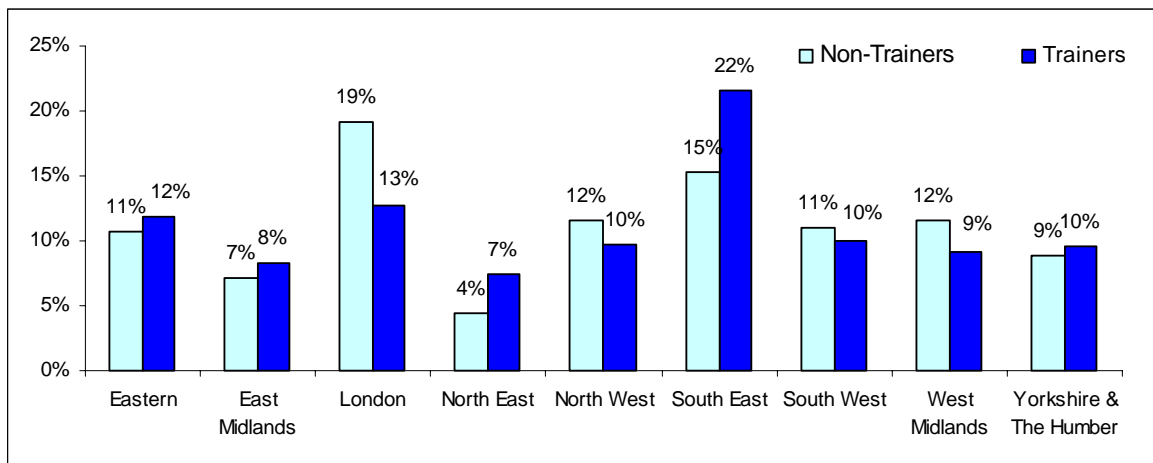
2. Characteristics of Trainers and Non-Trainers

This section briefly summarises some of the major differences in the characteristics of Trainers and Non-Trainers. Trainers account for 65% of the employer population and Non-Trainers for 35%.

2.1 Regional Distribution

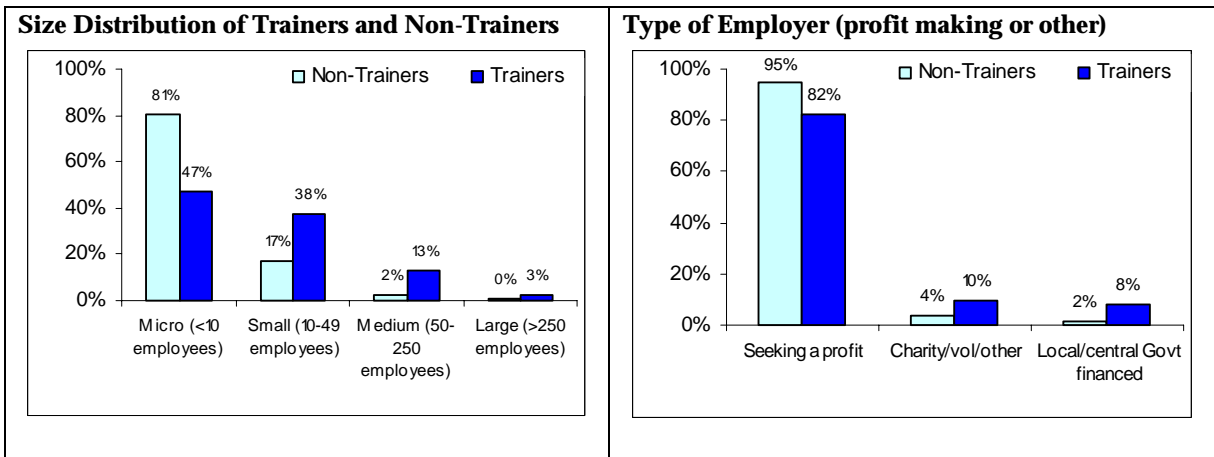
There are some differences in the regional distribution of Trainers and Non-Trainers. A relatively high proportion of Non-Trainers are based in London. A relatively high proportion of Trainers are based in the South East.

Regional Distribution of Trainers and Non-Trainers



2.2 Size and Type of Employer

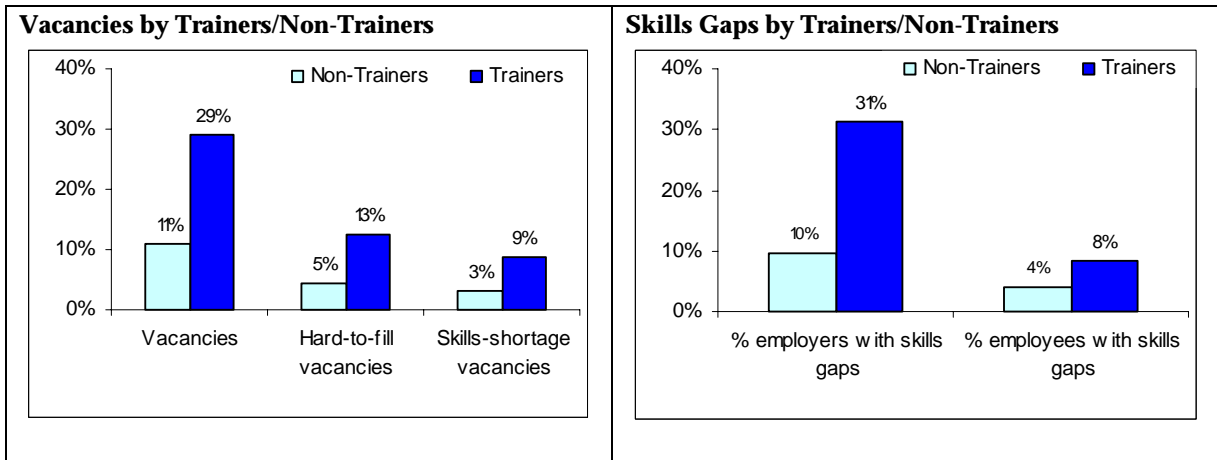
A high proportion of Non-Trainers are micro establishments with less than ten employees. Non-Trainers are also more likely than Trainers to be profit making organisations, rather than from the charity/voluntary or public sectors.



This is reflected in the sector distribution of Trainers and Non-Trainers. Sectors where public sector and voluntary organisations have a strong presence, such as Health and Social Work, account for a higher proportion of employers in the Trainer clusters than in the Non-Trainer clusters.

2.3 External Recruitment and Internal Skills Gaps

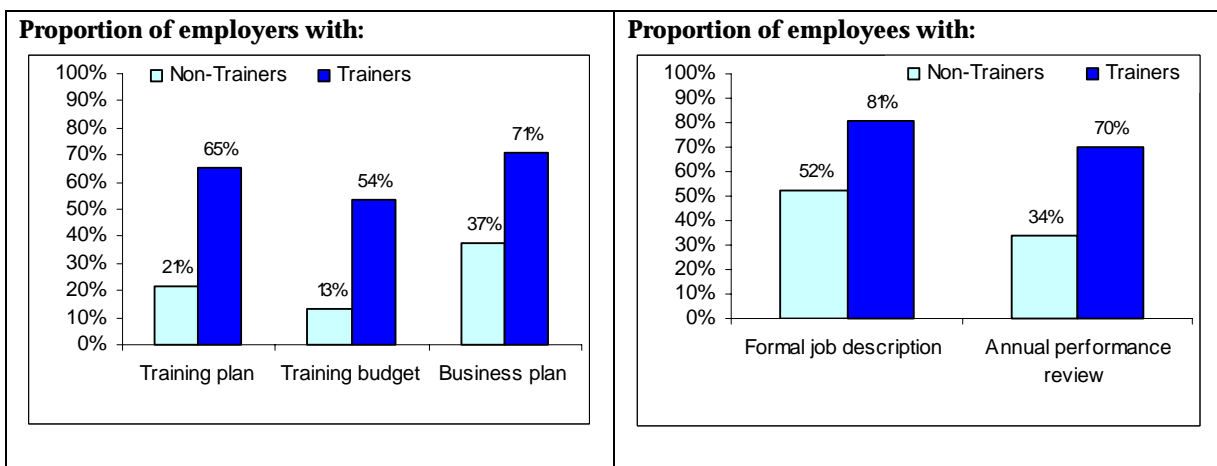
Trainers are far more likely than Non-Trainers to have vacancies, hard-to-fill vacancies, and skills shortage vacancies². Trainers are also more likely to report that some staff have skills gaps³.



Trainers are more likely than Non-Trainers to recruit young people direct from education (36% versus 15%).

2.4 Business Processes

Trainers are far more likely than Non-Trainers to have formal planning and staff appraisal arrangements in place, as shown in the two figures below.



² Skills-shortage vacancies are vacancies that employers find difficult to fill because candidates lack the necessary skills.

³ Skills gaps are based on proficiency – if an employer is not fully proficient to perform his or her job, then the employer is described as having a skills gap.

3. Overview of Clusters

The Cluster Analysis defined thirteen separate clusters – nine Trainer clusters (65% of employers) and four Non-Trainer clusters (35% of employers). There are approximately 1.4 million employers in the NESS employer population. By scaling up the cluster proportions, we can estimate the total number of employers in each cluster.

This section presents brief descriptions of the clusters and considers the possible implications for policy development. Detailed descriptions of each cluster are set out in Chapter 4.

3.1 Trainer Clusters: Introduction

The nine Trainer clusters fall into one of three broad categories which are defined according to the volume of training (average days training per trainee) and workforce coverage (proportion of the workforce trained). The three categories are Committed Trainers; Selective Trainers - Low Volume; and Selective Trainers - High Volume.

Committed Trainers are defined as having above average⁴ workforce coverage and above average volume of training per trainee. There are five Committed Trainers clusters, as shown in the table below. Together, they account for 37.4% of all employers.

Committed Trainers Cluster Name	% employers	No. employers	% employment	Employment (million)
Professional Services	13.3%	185,000	22.5%	4.8
Low Skilled Workforce and Young Recruits	12.3%	172,000	22.8%	4.9
Personal Services	4.3%	61,000	3.1%	0.7
Skills Shortage Vacancies and Young Recruits	4.1%	57,000	2.6%	0.6
Skills Gaps and Young Recruits	3.4%	47,000	4.0%	0.9
All Committed Trainers	37.4%	522,000	55%	11.9

Selective Trainers - Low Volume are defined as having below average workforce coverage and below average volume of training per trainee. There are two Selective Trainers – Low Volume clusters as shown in the table below. Together, they account for 10.4% of employers.

Selective Trainers – Low Volume Cluster Name	% all employers	Number employers	% employment	Employment (million)
Off the Job Training	7.4%	103,000	4.0%	0.9
Low Skilled Workforce	3.0%	42,000	3.1%	0.7
All Selective- Low Volume Trainers	10.4%	145,000	7.1%	1.6

Selective Trainers - High Volume are defined as having below average workforce coverage and above average volume of training per trainee. There are two Selective Trainers – High Volume clusters as shown in the table below. Together, they account for 17.3% of employers.

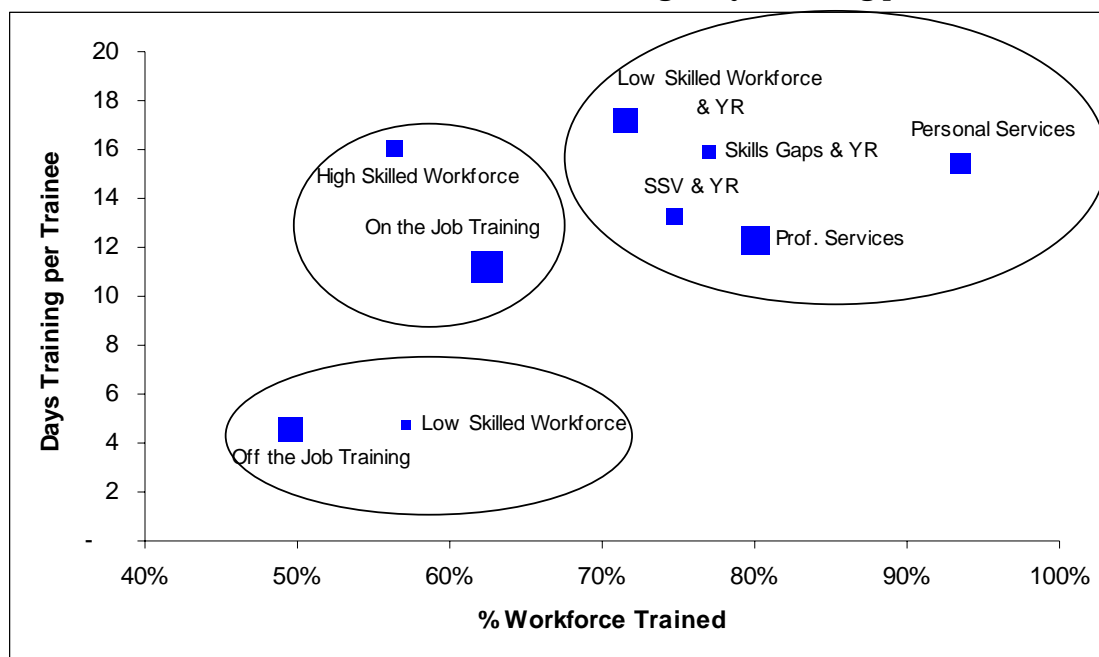
⁴ Note that average refers to the average for all employers that train, not the average for all employers.

Selective Trainers – High Volume Cluster Name	% all employers	Number employers	% employment	Employment (millions)
On the Job Training	13.7%	191,000	9.1%	2.0
High Skilled Workforce	3.6%	51,000	3.4%	0.7
All Selective – High Volume Trainers	17.3%	242,000	12.5%	2.7

The figure below shows the location of each Trainer cluster relative to the others in terms of the proportion of the workforce trained (horizontal axis) and the average days training per trainee (vertical axis). The average values across all Trainers are 69% for the proportion of the workforce trained (coverage) and 12.9 days training per trainee. Health and safety and induction training are excluded from the days training per trainee figures⁵.

The figure also shows the allocation of clusters to broad category: the five clusters circled in the top right are the Committed Trainers; the two clusters circled in the bottom left are the Selective Trainers – Low Volume; and the two clusters circled top left are the Selective Trainers – High Volume.

Trainer Clusters: % Workforce Trained versus Average Days Training per Trainee



Notes:

- Cluster identifiers are proportional to the size of the cluster.
- YR: Young Recruits
- SSV: Skills Shortage Vacancies

Points to note are that:

⁵ To focus on discretionary training.

- In all but one of the Trainer clusters (Personal Services), a significant proportion of employees were not trained during the previous 12 months. In the Off the Job Training cluster, half of employees did not receive training.
- There are no clusters with high coverage and low volume.

3.2 Committed Trainers

Brief descriptions of the Committed Trainers clusters are given below.

Professional Services. This is a large cluster which accounts for 13.3% of employers. The most distinctive feature of this cluster is the very high proportion of employees who are professionals or associate professionals. Sectors such as business services, health and education are well represented and public sector and voluntary organisations have a significant presence.

Employers in this cluster place emphasis upon training and associated systems (e.g. 80% have a training plan) and spend more than average on off-the-job training. They are above average users of further education colleges and other external providers.

Only 11% of employees in this cluster receive training to national qualifications. Tailored support programmes such as Train to Gain should see this increase. It is possible that the 15% of low-skilled employees in the cluster are receiving no or little training – in total, 20% of employees were not trained in the previous 12 months. It should be possible to engage these employers to provide training and education opportunities to lower skilled workers.

Low Skilled Workforce and Young Recruits. This is a large cluster which accounts for 12.3% of employers. The distinctive features of this cluster are the high proportion of employees in low skilled occupations⁶ and the high propensity of employers to recruit young people direct from education. Training is important to business success, as reflected in the high volume of days training per trainee and the higher than average proportion of employers having training plans and budgets. The proportion of employers with staff with skills gaps is above average. The opportunity cost of trainee time spent training is very high – despite the high proportion of lower skilled occupations.

It is likely that many staff in this cluster will not have a level 2 and many will be working long shifts and unsociable hours - given some of the major occupational sector/industry combinations (e.g. Elementary occupations in the Hotels and Restaurants sector). Currently, 15% of employees receive training to national qualifications. The challenge is through programmes such as Train to Gain to significantly increase this percentage and progress a far higher number of people, many of them young, to level 2.

Personal Services. The distinctive feature of this cluster is the very high proportion of staff in Personal Service occupations. A high proportion of staff will be working closely with

⁶ We have defined High, Medium and Low skilled employees according to their occupation as follows:
 High Skilled – Managers, Professionals, Associate Professionals, and Skilled Trades;
 Medium Skilled - Administrative/Clerical, Personal Service, and Sales/Customer Service;
 Low Skilled – Machine Operatives and Elementary Occupations.

customers, often in care roles. Most staff will require a good standard of general education and vocational training, and some might require professional qualifications or registration with professional bodies. The proportion of staff trained to national qualifications is 79%, more than double the rate for the next highest cluster (31%). Well over half (58%) of employers in the cluster use Further Education colleges and a high proportion of those that do are 'very satisfied' with the training staff receive - 49% versus 42% for all Trainers.

Many employers in the cluster are likely to be subject to regulation regarding staff qualifications (e.g. childcare providers) and the intensive training provided to staff probably reflects legal requirements for staff to be qualified. The policy question this raises is whether increased regulation of employee qualifications would be desirable in other sectors – the 'desirability' of the outcomes in this cluster would appear to make this an issue worth considering.

Skills Shortage Vacancies and Young Recruits. The distinctive feature of this cluster is that 90% of employers report skills shortage vacancies, well in excess of any other cluster. There is also a high incidence of employers reporting skills gaps in their existing workforce, and a high propensity to train employees to national qualifications. Employers in this cluster have a high propensity to recruit young people direct from education, and it would appear that they find many of these young people lack the vocational qualifications and skills that they deem desirable.

Skills Gaps and Young Recruits. The distinctive feature of this cluster is that all employers report skills gaps – well in excess of any other cluster. Employers in this cluster also have a high propensity to recruit young people direct from education. Employers in this cluster would appear to find significant skills gaps in young employees. They train to address these gaps, and are relatively high users of FE colleges. Satisfaction levels with FE colleges are relatively low, suggesting that courses are not sufficiently tailored to the needs of employers.

3.3 Selective Trainers – Low Volume

Brief descriptions of the Selective Trainers – Low Volume clusters are given below.

Off the Job Training. This cluster is distinctive in that training is almost always off the job. The workforce is relatively high skilled and employers provide high levels of admin support. Only half of the workforce receives training and trainees receive on average, just 4.7 days training. The limited training provided for higher skilled staff in this cluster may be appropriate for many employers. For some however, the low intensity of training might limit capacity to innovate and grow over time. The challenge will be to engage these employers and highlight the potential long-term business benefits of increased training.

Low Skilled Workforce. The distinctive feature of this cluster is the very high proportion of staff in low skilled occupations, most of whom receive little or no training. Few staff are trained to national qualifications. There is no particular industry focus, with most establishments being micro or small private firms. The cluster appears to consist of low value-added companies that perceive little benefit to training. The challenge is how to engage these employers in the skills

agenda, given that they employ more than 600,000 low skilled people, many of whom are likely to face time/cost constraints to learning in their own time.

3.4 Selective Trainers - High Volume

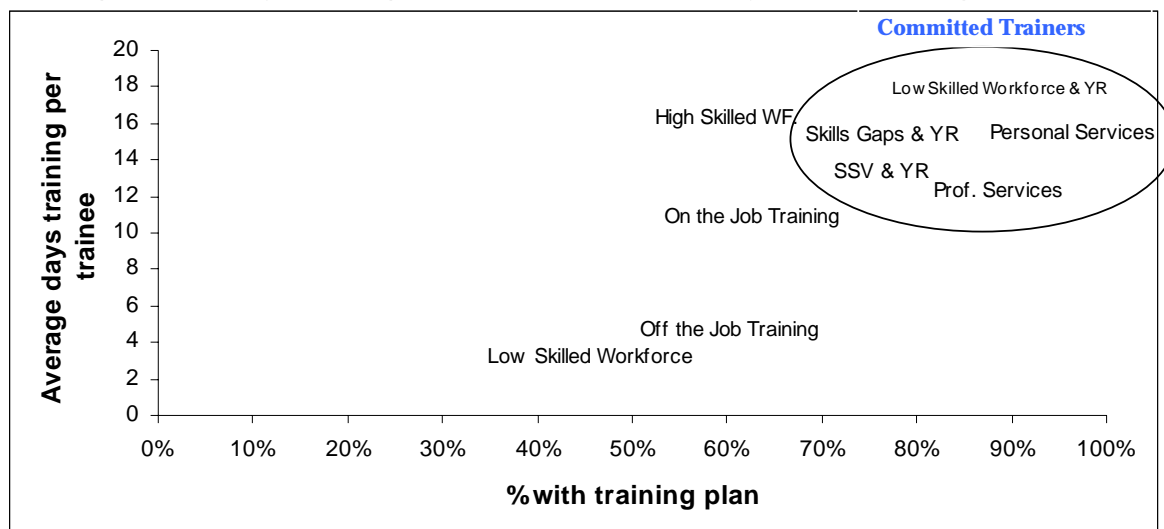
On the Job Training. This is one of the larger clusters – accounting for 13.7% of employers – and is distinctive in that training is provided almost exclusively on the job. Retail and wholesale trade businesses are well represented and a high proportion of staff are in sales/customer service roles – most are likely to be qualified to level 1 or 2. Employers in this cluster do see the business benefits of training, but the training provided is very company specific and a low proportion of staff receive training to national qualifications. Many are likely to be older adults and might have been outside formal education for some time. There is limited use of FE colleges and workers in these employers may be difficult to engage for up-skilling. Employers in this cluster are an important but challenging target market for Train to Gain.

High Skilled Workforce. The distinctive feature of this cluster is the high proportion of the workforce in high skilled occupations (Professionals and Associate Professionals, Managers, and Skilled Trades). Although only 56% of staff were trained in the last 12-months, this might not imply that a high proportion of staff are never trained – training may be intensive Continuous Professional Development (CPD), at relatively long intervals. Employers in this cluster tend to train staff off the job and are above average users of FE colleges. Colleges may often have strong relationships with these employers and should be a good source of referrals for skills brokers who would be able to ascertain whether sub-optimal levels of training are taking place.

3.5 Trainers: Business Processes and use of FE Colleges

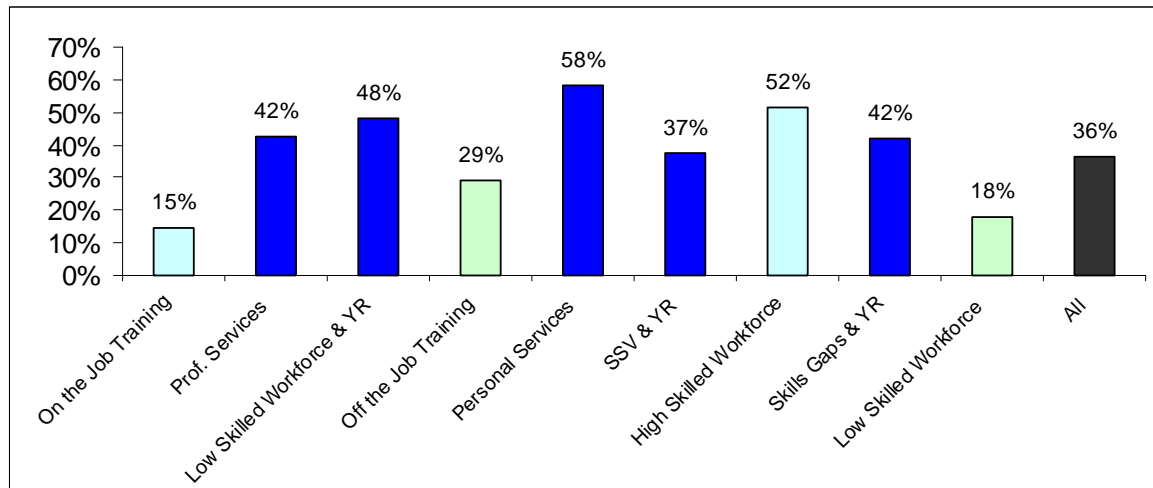
There is a positive relationship between the volume of training in the Training clusters and the incidence of business and training plans. Committed Trainers have relatively high training volumes and a higher incidence of training plans.

Training clusters: Days training per trainee versus % employers with training plan



The propensity to use FE colleges varies by cluster. Committed Trainers (in dark blue in the figure below) have a high propensity to use FE Colleges. Employers in the Selective Trainers – High Volume: High Skilled Workforce cluster are also intensive users of colleges.

Proportion of employers in each cluster using FE Colleges



3.6 Non-Trainers: Introduction and Context

There are four Non-Trainer clusters, as shown in the table below. Together, they account for 35% of all employers.

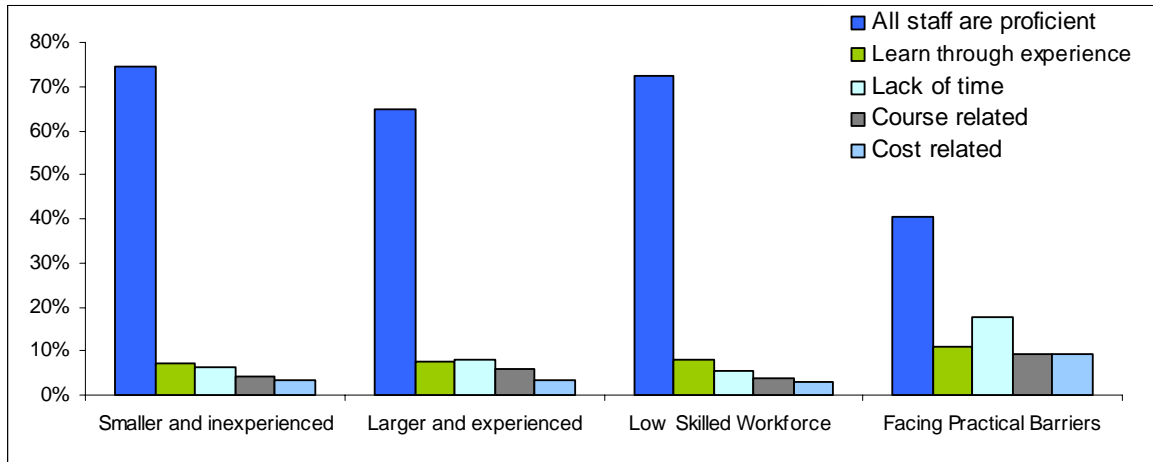
Non-Trainers Cluster Name	% all employers	Number employers	% employment	Employment (millions)
Smaller and inexperienced	16.5%	232,000	5.7%	1.2
Larger and experienced	10.4%	146,000	12.9%	2.8
Low Skilled Workforce	5.1%	71,000	4.3%	0.9
Facing Practical Barriers	3.0%	42,000	2.3%	0.5
All Non-Trainers	35%	491,000	25.2%	5.4

Reasons for not training

In all Non-Trainer clusters, the most common reason cited for not training is that all staff are fully proficient, which suggests a lack of demand for training and a potentially difficult task to create demand through policy interventions.

This remains true for the Facing Practical Barriers cluster, but to a lesser extent – 40% of employers in this cluster report that all staff are fully proficient. A number of other factors are important for employers in this cluster, particularly a lack of time for training (18% employers). However, this cluster contains less than 10% of non trainer employers (just 3% of all employers) – most non trainers currently see no need to provide their staff with training.

Summary of reasons cited for not training



3.7 Non Trainer Cluster Descriptions

Smaller and inexperienced. Employers in this cluster have just five employees on average and are predominantly private businesses, rather than public sector or voluntary organisations. Many are likely to be owner managed businesses in the early stages of their development – only 29% have a formal business plan. These employers are likely to have unrecognised skills gaps and to enable future growth would probably benefit from training in basic business processes: ICT, accounting, procurement etc. BusinessLink and/or other business support organisations might be able to interest these employers in training, as part of a broader package of business support.

Larger and experienced. This cluster contains a high proportion of professional service businesses. A majority of employers in this cluster have a business plan and the large majority of staff have a job description and an annual performance assessment. But only 39% have a training plan and 26% a training budget. It seems likely that many employers in the cluster formally plan the future development of their business, but do not see the business benefits of training.

Low Skilled Workforce. Employers in this cluster have few high or medium skilled employees – three quarters of staff are in low skilled occupations. High/medium skilled staff are generally managers or administrative staff – there are very few professionals in the cluster. One fifth of employers in the cluster are in the Hotels and Restaurants sector. Manufacturing, Agriculture and Land Transport are also well represented. Employers in the cluster do not perceive a need to provide training and it is likely to be challenging to persuade these employers to participate in flexible programmes such as Train to Gain. Without work based training, most employees in this cluster are unlikely to improve their skills, as they will face barriers to participating in learning in their own time. Many work in sectors where unsociable working hours are common (e.g. Hotels and Restaurants).

Facing Practical Barriers. Many employers in the cluster recognise a requirement for training – 28% have a training plan - but are held back by practical constraints, such as a lack of time, inappropriate or badly timed courses, and the high cost of external courses. A high proportion of employers recruit young people direct from education. Two thirds recognise skills gaps in their workforce and one third report skills-shortage vacancies – this compares to negligible numbers reporting skills gaps and skills-shortage vacancies in the other Non-Trainer clusters. This suggests that many young people recruited by employers in the cluster require training. The challenge is to better understand the constraints faced by these employers and adapt provision accordingly. Employers in this cluster would benefit greatly from Train to Gain and/or other programmes of flexible training provision delivered at their premises.

4. Cluster Profiles: Trainers

This section contains detailed profiles of each of the Trainer clusters.

4.1 Indicators for Each Trainer Cluster

We report values for a number of indicators and the average values for all Trainers.

We have classified indicators into seven categories as follows:

- Training – Workforce Coverage and Volume;
- Business Processes;
- Employee Characteristics;
- External Recruitment;
- Qualifications and Training Providers;
- Training Costs; and
- Geography, Size, and Sectors.

The indicators of average days of on-the-job and off-the-job training per trainee exclude health and safety and induction training. The rationale for this is that for the purposes of policy development, discretionary training should be the focus of the analysis.

We also comment on policy implications.

Committed Trainers: Professional Services

Cluster Description

Medium-sized professional service sector companies with well trained staff that place emphasis upon training and associated systems and spend more than average on off-the-job training. Employers in the cluster are above average users of further education colleges and other external providers. Much of this external training is likely to be for CPD of professional staff.

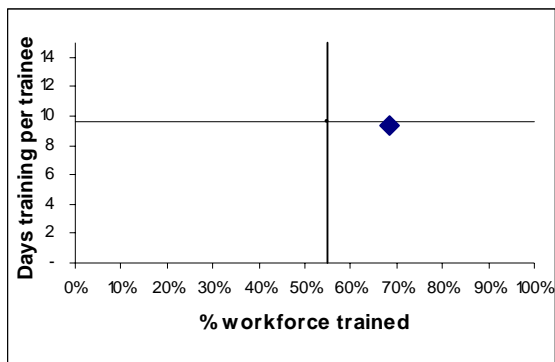
This cluster accounts for 13.3% of all employers (Trainers and Non-Trainers) - 185,000 establishments in total.

Training – Workforce Coverage and Volume

Employers in the cluster provide training to a high proportion of their workforce - 80% of the workforce is trained (average is 69%). There is a roughly equal balance between on-the-job and off-the-job training, with a majority of employees trained receiving both.

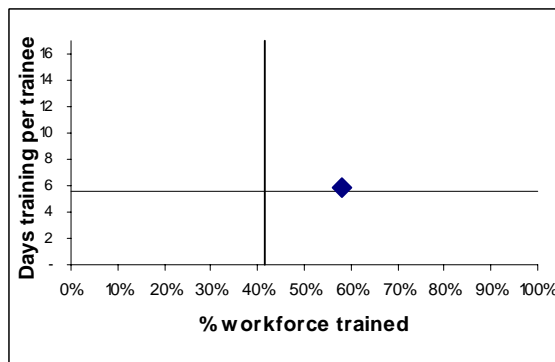
The volume of on-the-job and off-the-job training per trainee at 9.4 and 5.8 days respectively is close to the average for all Trainers.

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume



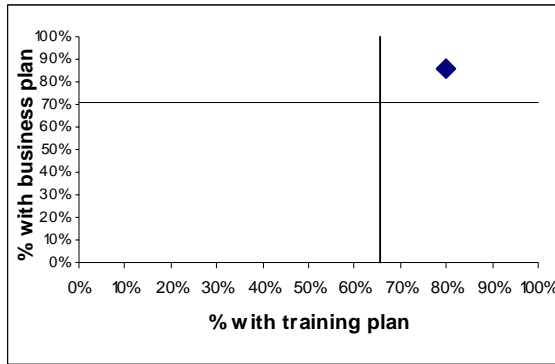
All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

Higher than average numbers have training plans and training budgets and assess training gaps.

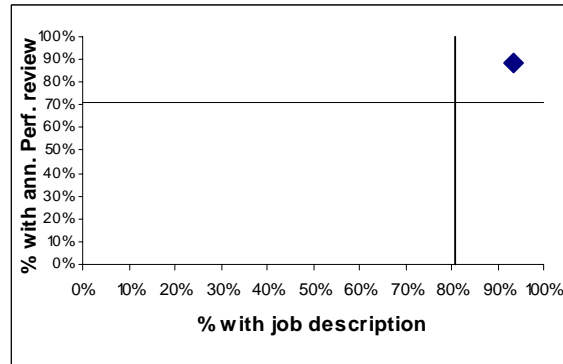
A higher than average percentage of employees have formal job descriptions and annual performance reviews.

% employers with training and business plans



All Trainers: % with business plan = 71%
 All Trainers: % with training plan = 65%

% employees with formal reviews and job description

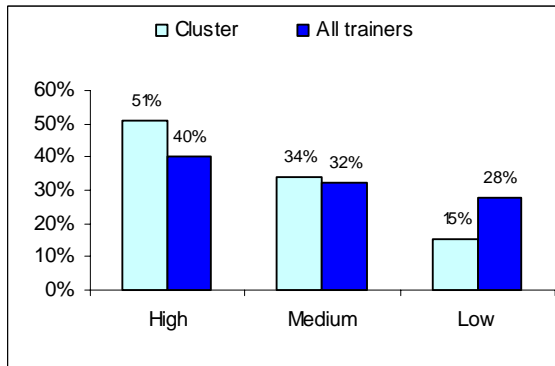


All employees in Trainer employers: % with annual performance review = 70%
 All employees in Trainer employers: % with job description = 81%

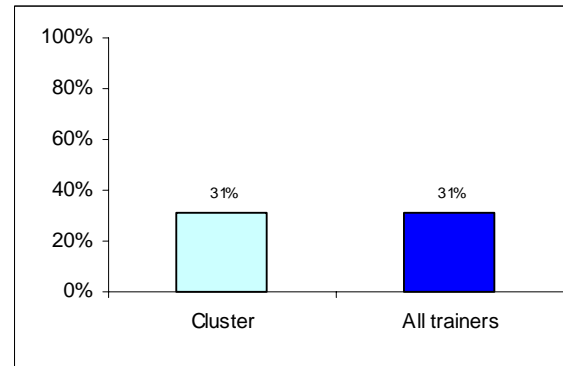
Employee Characteristics

Primarily high and medium-skilled employees (51% and 34% of the workforce respectively). There are significantly higher than average proportions of Professionals and Associate Professionals. An average proportion of employers identified skills gaps in their workforce (31%).

Employee skills profile



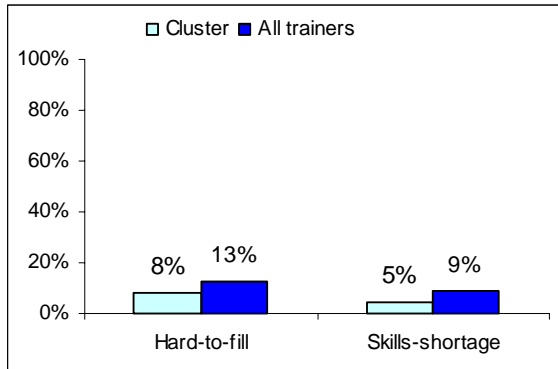
% employers reporting skills gaps



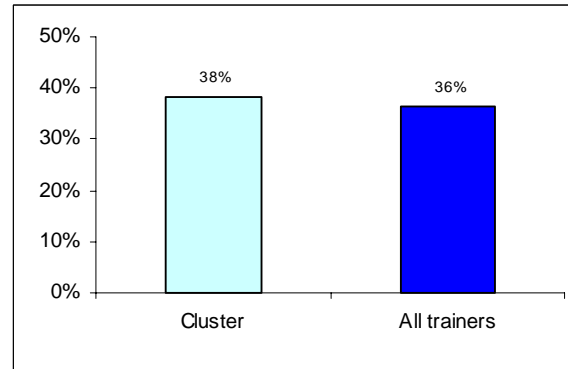
External Recruitment

The number of employers having vacancies is about average, whilst hard-to-fill and skills-shortage vacancies are below average. The number of employers recruiting young people direct from education is about average.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education

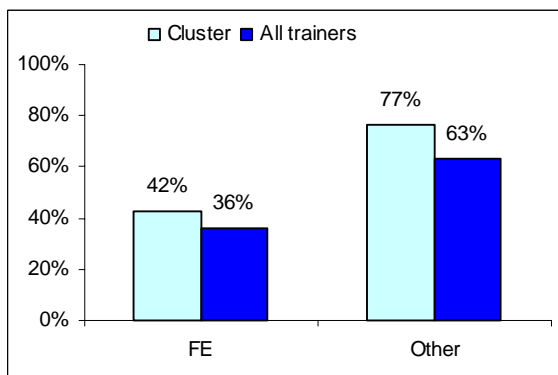


Qualifications and Training Providers

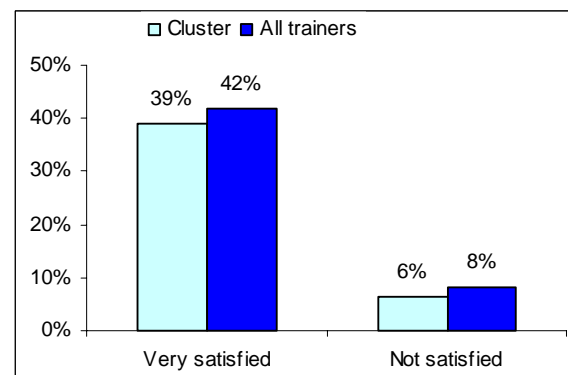
Relatively few staff are trained to national qualifications – 11% against an average of 19%.

Greater than average use is made of further education colleges, with satisfaction levels being about average. There is also a greater use of other providers than in the sample as a whole – much of this external training is likely to be for CPD of professional staff.

% employers using FE colleges and other external providers



Satisfaction with FE colleges

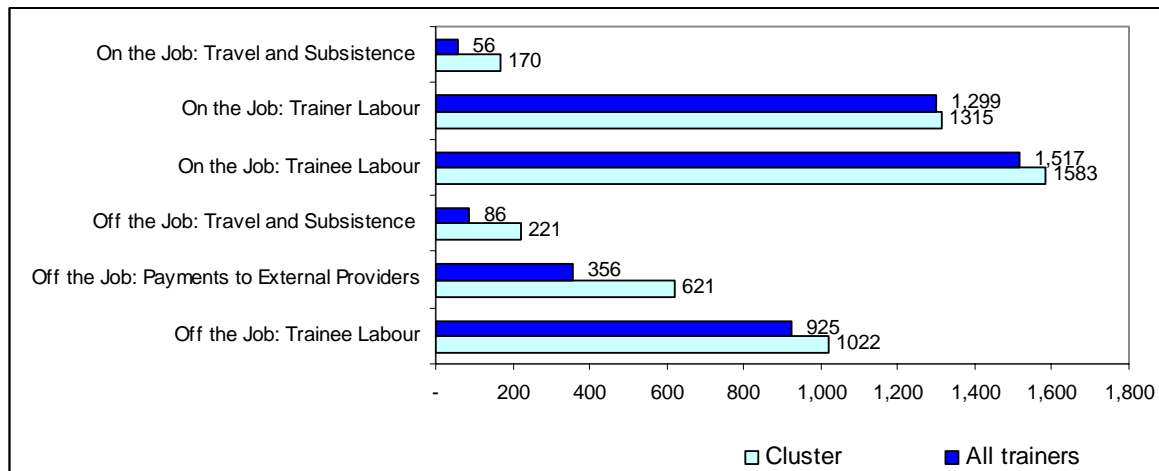


Training Costs

Off-the-job training costs are more than the average across all categories, especially for cash payments per trainee to external providers and travel and subsistence costs.

On-the-job costs are average for the sample, with the exception of travel and subsistence costs, which are well above average. This suggests that many employers have central training centres where employees receive on-the-job training.

Average cost of training per trainee, £



Geography, Size, and Sectors

Bias towards the South East and Eastern Region (40%).

Medium-sized (58 employees average).

Primarily services: 16% health and social work; 10% education; 11% other business activities; and 8% recreational, cultural and sporting activities.

Higher than average proportion in charity/voluntary and public sectors (30% combined, versus 18% for All Trainers).

Policy Implications

- A risk that the 15% of low-skilled employees are receiving no or little training.
- It should be reasonably easy to engage these employers to provide training and education opportunities to lower skilled workers, for example, via Train to Gain.

Committed Trainers: Low Skilled Workforce and Young Recruits

Cluster Description

Larger establishments with well trained staff. There is a high proportion of staff in low skilled occupations and employers have a relatively high propensity to recruit young people direct from education. Training is seen as important to the success of the business as reflected in the high volume of days training per trainee and the higher than average proportion of employers having training plans and budgets. The proportion of employers with staff with skills gaps is above average. The opportunity cost of trainee time spent training is very high – despite the high proportion of lower skilled occupations. This might suggest that many lower skilled employees are not receiving training.

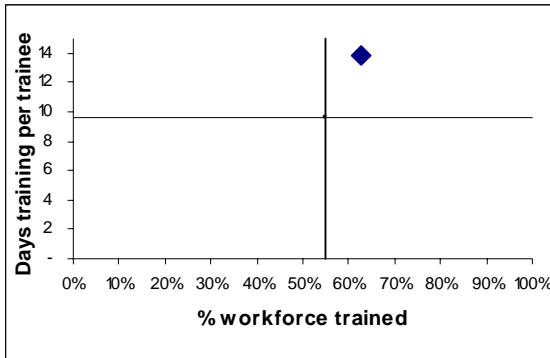
This cluster accounts for 12.3% of all employers - 172,000 establishments in total.

Training – Workforce Coverage and Volume

Employers in the cluster provide training to a high proportion of their workforce - 72% of the workforce is trained, against an average for All Trainers of 69%. The proportion of employees trained on-the-job is 63% and off-the-job 46% - both above the respective averages for all trainers.

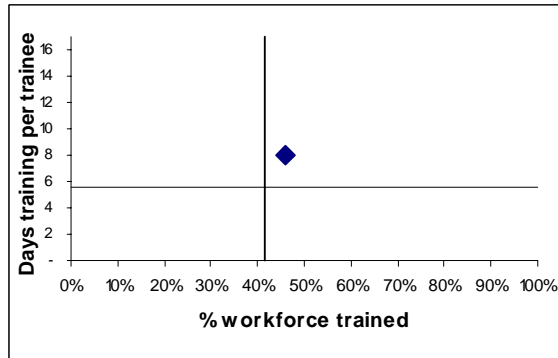
Annual average days of training per trainee is high at 13.9 days for on-the-job training and 7.9 days for off-the-job training.

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume



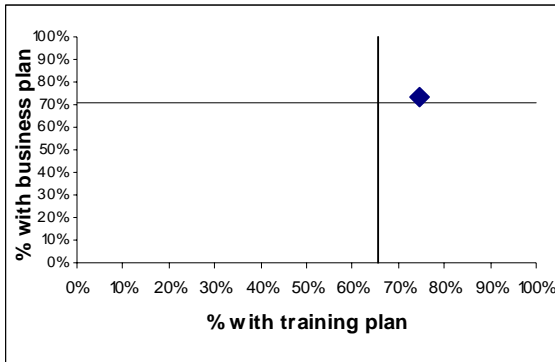
All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

A higher than average number of employers have training plans, training budgets and assess training gaps. The proportion with a business plan is in line with the all Trainer average.

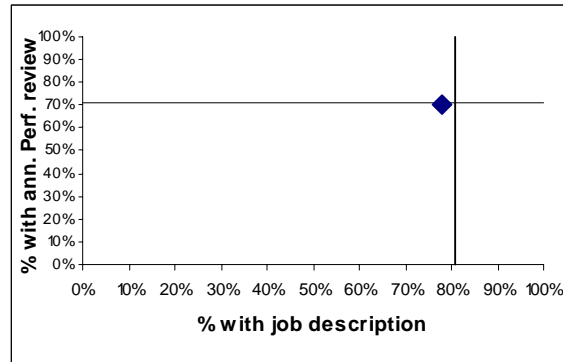
The percentage of employees with formal job descriptions and annual performance reviews is in line with the average for all Trainers.

% employers with training and business plans



All Trainers: % with business plan = 71%
 All Trainers: % with training plan = 65%

% employees with formal reviews and job description

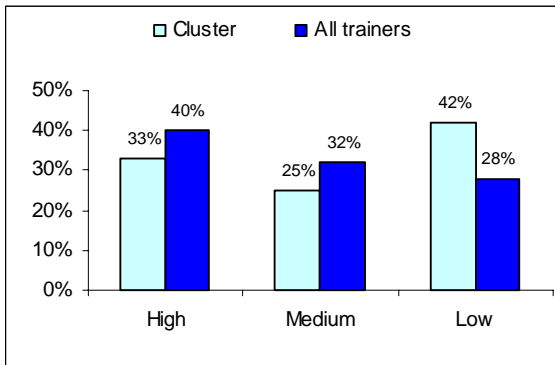


All employees in Trainer employers: % with annual performance review = 70%
 All employees in Trainer employers: % with job description = 81%

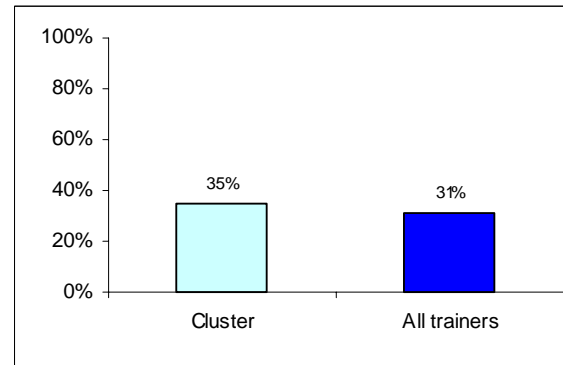
Employee Characteristics

A bias towards lower skilled occupations: 21% of the workforce are Machine Operatives; and 21% are in Elementary occupations. There is low representation of Professionals and Associate Professionals. An above average proportion of employers identified skills gaps in their workforce, although the proportion of staff described as having skills gaps is below average.

Employee skills profile



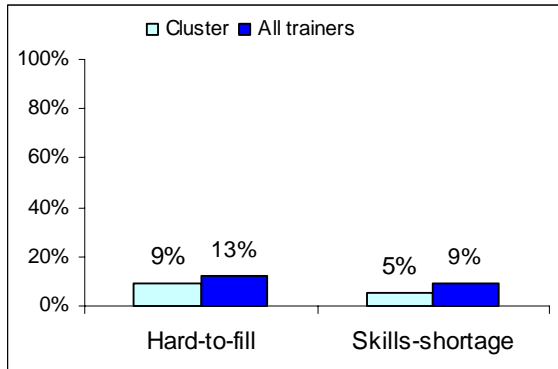
% employers reporting skills gaps



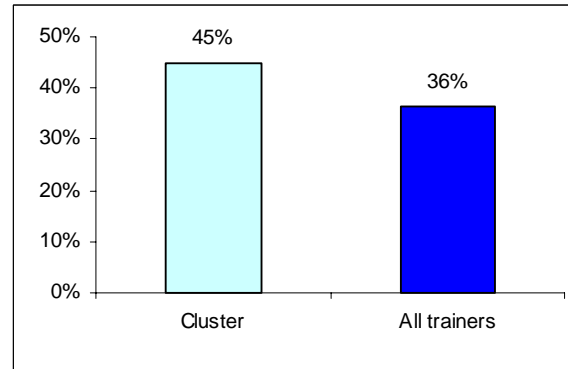
External Recruitment

The proportion of employers having vacancies, hard-to-fill vacancies and skills-shortage-vacancies is about average. The number of employers recruiting young people direct from education is high.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education

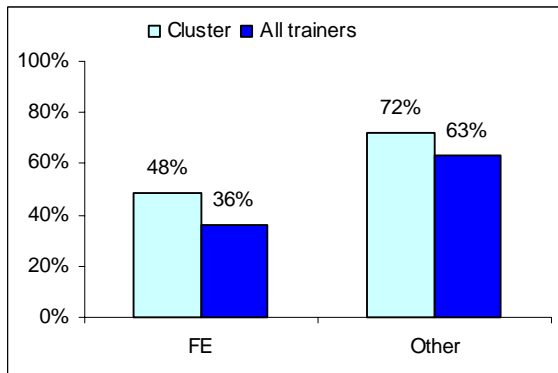


Qualifications and Training Providers

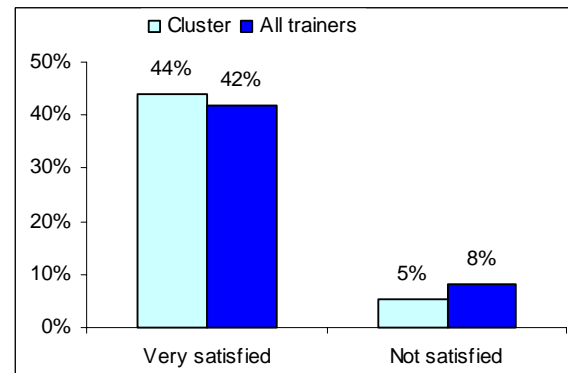
Relatively few staff are trained to national qualifications – 15% against an average of 19%.

Above average use is made of further education colleges, with satisfaction levels being just above average. Employers in the cluster are also above average users of other providers.

% employers using FE colleges and other external providers



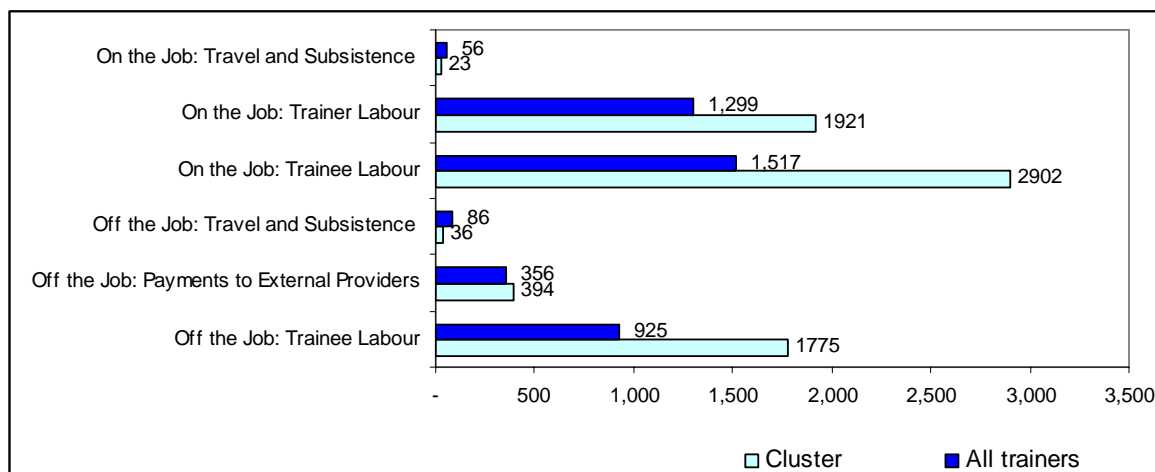
Satisfaction with FE colleges



Training Costs

For on-the-job and off-the-job training, the opportunity cost of staff participating in training (as trainees and trainers) is very high. Given the low skilled bias in the workforce, this might indicate that the majority of low skilled staff are not trained and/or that there is a large number of high value-added businesses in the cluster.

Average cost of training per trainee, £



Geography, Size, and Sectors

The distribution by region is similar to that for all Trainers.

Employers in the cluster are relatively large (63 employees average, versus 39 for all Trainers).

The cluster has the highest manufacturing presence of all Trainer clusters – 14% of employers are classified as Manufacturing against 11% for all Trainers. Service sector representation is focused on: Hotels and Restaurants (11%); Health and Social Work (13%); and Education (8%).

Policy Implications

- Employers in this cluster take training seriously. There are hints in the training cost data that lower skilled employees are missing out on training. The policy challenge is likely to be engaging the lower skilled employees in the sector into learning, given the likelihood of long shifts/unsociable hours in many of the occupational sectors/industry combinations – e.g. Elementary occupations in the Hotels and Restaurants sector.
- Employers in the cluster recruit a lot of young people, many of whom are likely to be low skilled. The policy challenge is how to reach them to up-skill.
- On the positive side, these employers are engaging with FE colleges – giving employers access to external guidance and information.

Committed Trainers: Personal Services

Cluster Description

Small personal service sector employers with a high proportion of staff working closely with customers, often in care roles. Most staff will require a good standard of general education and vocational training, and some might require professional qualifications or registration with professional bodies. A very high proportion of staff are trained (93%) and 79% are trained to national qualifications. Well over half (58%) of employers in the cluster use further education colleges and a high proportion of those that do are 'very satisfied' with the training staff receive - 49% versus 42% for all Trainers. Many employers in the cluster are likely to be subject to regulation regarding staff qualifications (e.g. childcare providers).

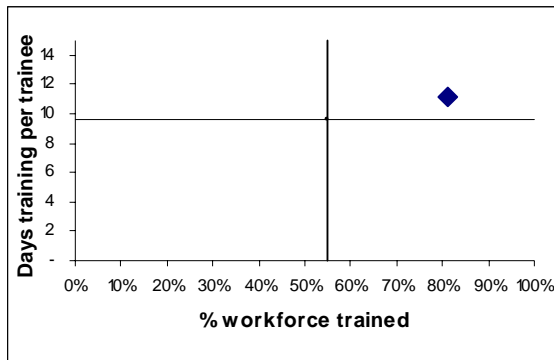
This cluster accounts for 4.3% of all employers - 61,000 establishments in total

Training – Workforce Coverage and Volume

Employers in the cluster provide training to almost all of their staff - 93% of the workforce receive training, the highest of any cluster. There is an equal balance between on-the-job and off-the-job training, with a majority of employees trained receiving both.

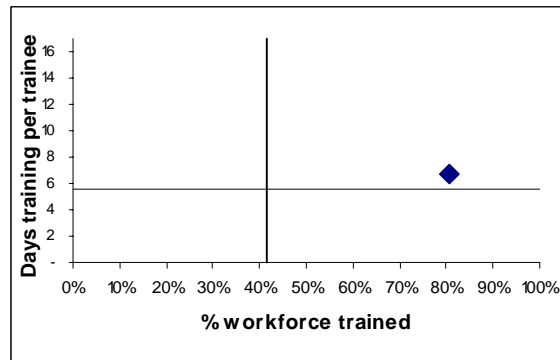
The volume of on-the-job and off-the-job training per trainee is high at 11.1 and 6.7 days respectively (against average figures of 9.6 and 5.5 days).

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume

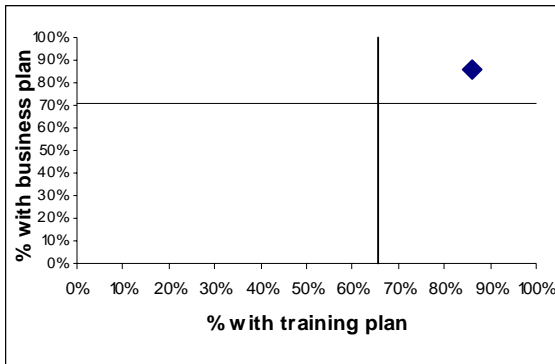


All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

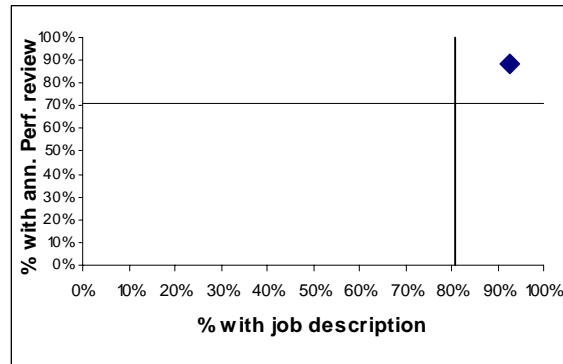
The vast majority of employers have training plans and training budgets and assess training gaps. A high percentage of employees have formal job descriptions and annual performance reviews.

% employers with training and business plans



All Trainers: % with business plan = 71%
 All Trainers: % with training plan = 65%

% employees with formal reviews and job description

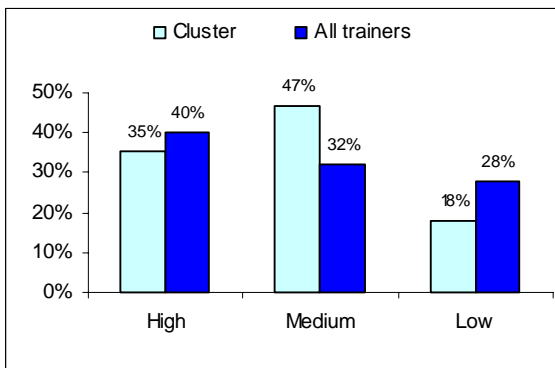


All employees in Trainer employers: % with annual performance review = 70%
 All employees in Trainer employers: % with job description = 81%

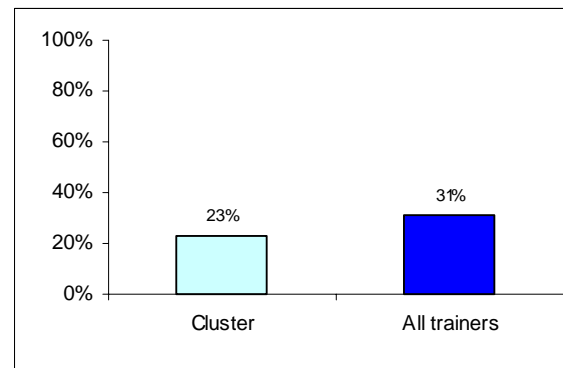
Employee Characteristics

A high proportion of medium-skilled employees, with the majority being in Personal Service occupations. The incidence of skills gaps is somewhat below that for all Trainers.

Employee skills profile



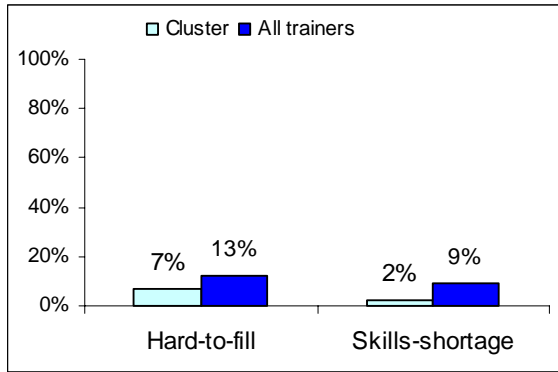
% employers reporting skills gaps



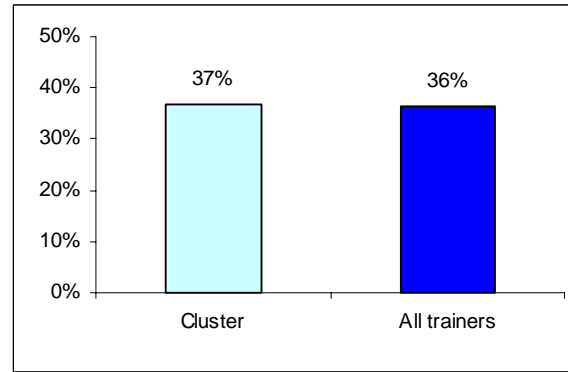
External Recruitment

The proportion of employers recruiting young people direct from education is about average. Vacancy levels are below average, especially the incidence of skills shortage vacancies.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education

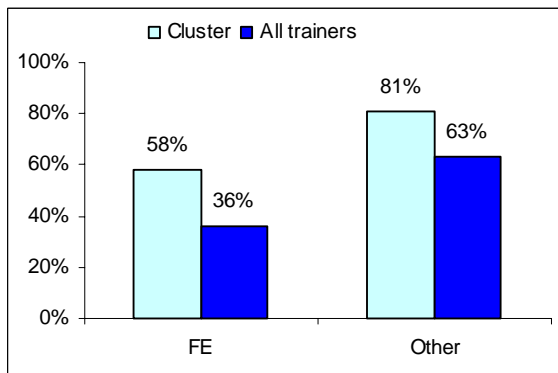


Qualifications and Training Providers

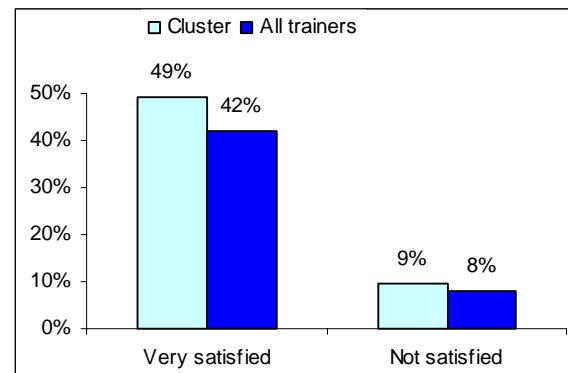
A very high proportion of staff are trained to national qualifications – 79% against 19% for all Trainers.

Well over half (58%) use further education colleges, compared to 36% of all Trainers. A high proportion of employers are ‘very satisfied’ with the training staff receive from colleges - 49% versus 42% average.

% employers using FE colleges and other external providers



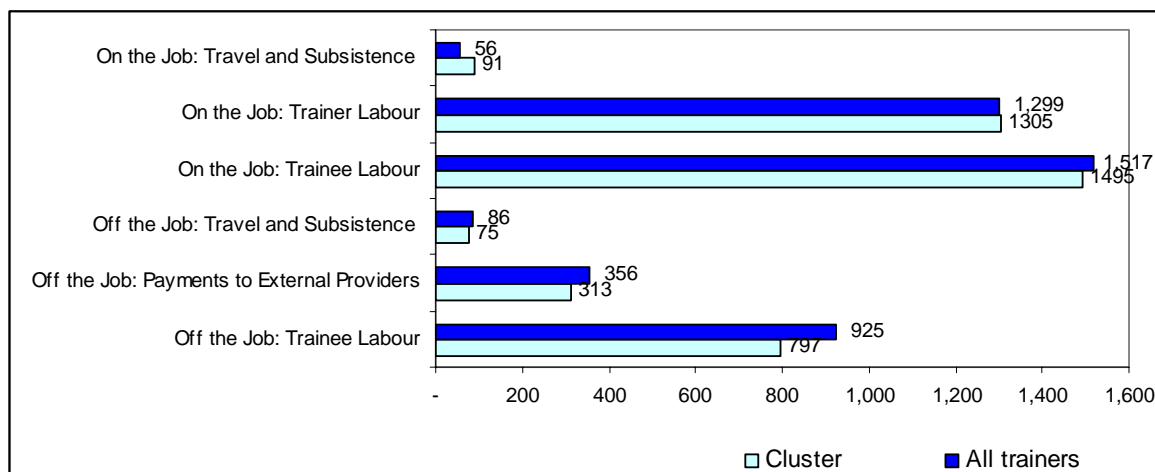
Satisfaction with FE colleges



Training Costs

Training costs are close to average figures in all categories.

Average cost of training per trainee, £



Geography, Size, and Sectors

A bias towards the North and Midlands.

Smaller employers (24 employees average).

A focus on personal service industries: 23% in Health and Social Work; and 15% in Education. Very few manufacturing businesses (just 3% of employers in the cluster). A higher than average proportion in the charity/voluntary and public sectors (31% combined, versus 18% for all trainers).

Policy Implications

- In many employers, the intensive training probably reflects legal requirements for staff to be qualified. Would increased regulation be desirable in other sectors?
- A lot of employees working in establishments in the cluster are likely to have attained level 2. In terms of career progression, a managerial role might be the natural next step. There might be a need for flexibly delivered vocational level 3 training with a management focus.

Committed Trainers: Skills-Shortage Vacancies and Young Recruits

Cluster Description

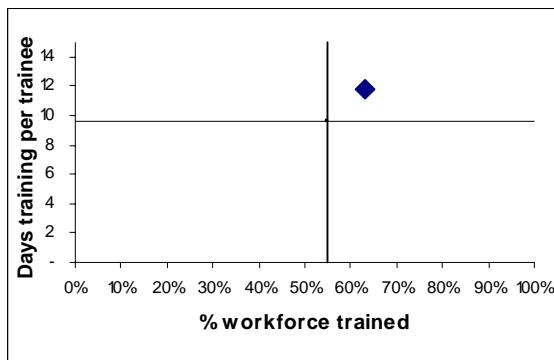
Small employers with medium skilled and highly trained staff, most of who are trained on-the-job. A high proportion of employers recruit young people direct from education and train staff to national qualifications. There is a high incidence of skills gaps. Most employers in the cluster have vacancies, the majority of which are hard-to-fill and skills-shortage. Employers in the cluster make average use of further education colleges. The proportion of employers 'Very Satisfied' with colleges is average, but the proportion 'Not Satisfied' is almost double the average (15% versus 8%).

This cluster accounts for 4.1% of all employers - 57,000 establishments in total.

Training – Workforce Coverage and Volume

Three quarters of the workforce are trained and 31% are trained to national qualifications, against 19% for the sample. The number of training days on the job is higher than average (11.7 days as against the sample average of 9.6). The percentage of staff who are trained on-the-job is also higher than average.

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume

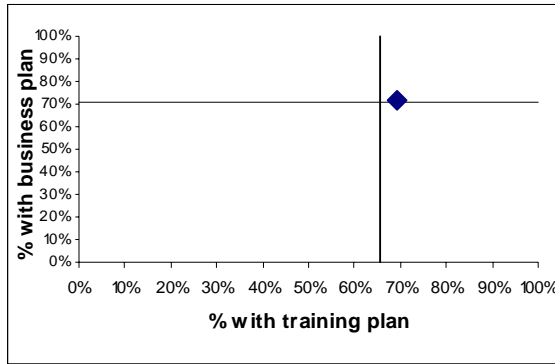


All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

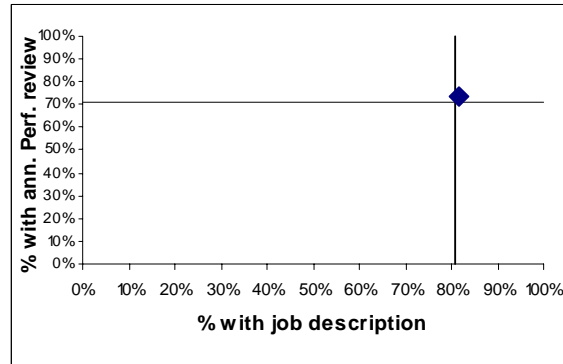
All the variables are close to the all Trainer average.

% employers with training and business plans



All Trainers: % with business plan = 71%
 All Trainers: % with training plan = 65%

% employees with formal reviews and job description



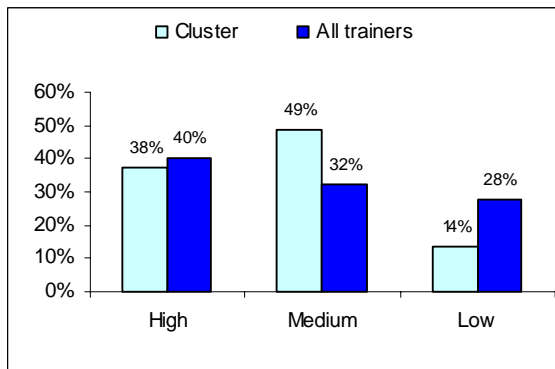
All employees in Trainer employers: % with annual performance review = 70%
 All employees in Trainer employers: % with job description = 81%

Employee Characteristics

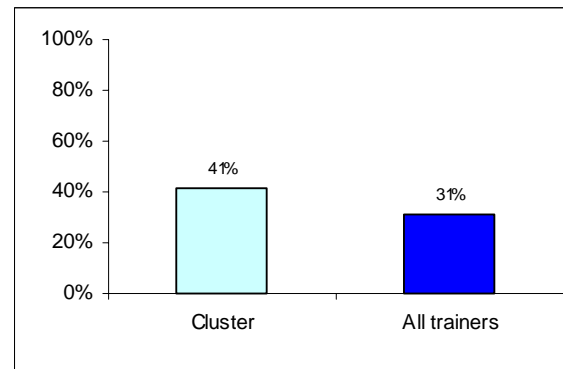
Very few low skilled and a high proportion of medium skilled employees, especially in Personal Service Occupations (22% v 7% for all Trainers).

A higher than average incidence of skills gaps for establishments and staff.

Employee skills profile



% employers reporting skills gaps

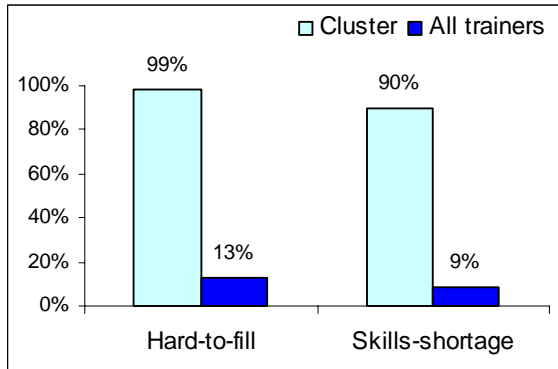


External Recruitment

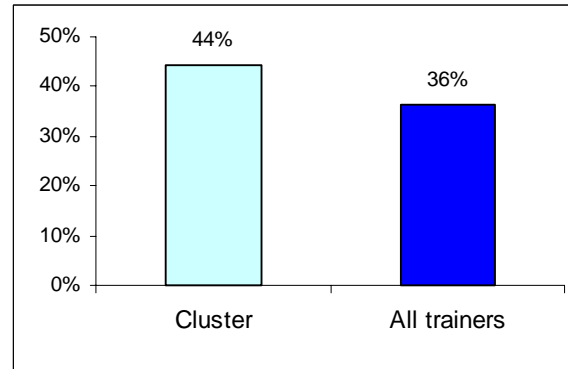
Employers in this cluster have an extremely high rate of vacancies. Almost all have hard-to-fill vacancies and nine out of ten have skills shortage vacancies.

Employers in the cluster have a high propensity to recruit young people from education.

% employers reporting hard-to-fill and skills-shortage vacancies



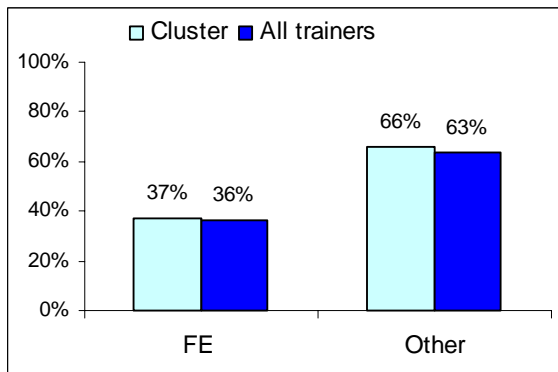
% employers recruiting young people direct from education



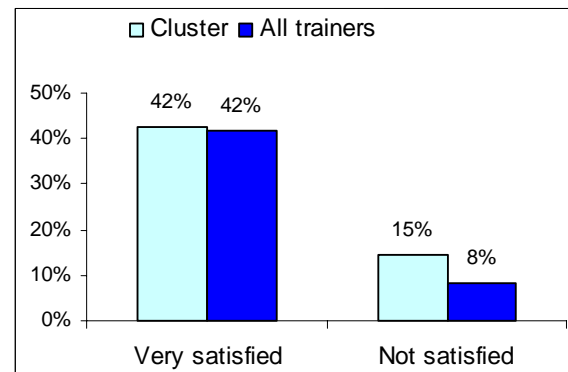
Qualifications and Training Providers

Employers in the cluster make average use of further education colleges. The proportion of employers 'Very Satisfied' is average, but the proportion 'Not Satisfied' is almost double the average (15% versus 8%).

% employers using FE colleges and other external providers



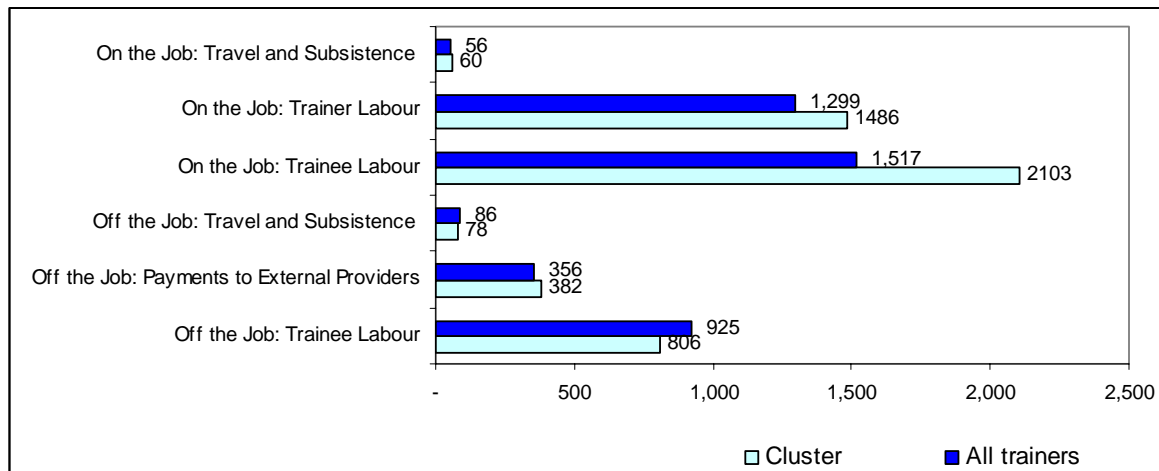
Satisfaction with FE colleges



Training Costs

Close to average, with exception of on-the-job trainee labour costs (significantly above average).

Average cost of training per trainee, £



Geography, Size, and Sectors

The regional distribution is similar that of all Trainers. There are slightly above average numbers in the South East and Yorkshire and Humberside.

Smaller employers (22 employees on average).

All sectors are represented. Manufacturing is below average. Construction and Hotels and Restaurants are slightly above average. An above average number are profit seeking (87% v 82%).

Policy Implications

- Employers in this cluster have a high propensity to recruit young people direct from education, and it would appear that they find many of these young people lack the vocational qualifications and skills that they deem desirable.

Committed Trainers: Skills Gaps and Young Recruits

Cluster Description

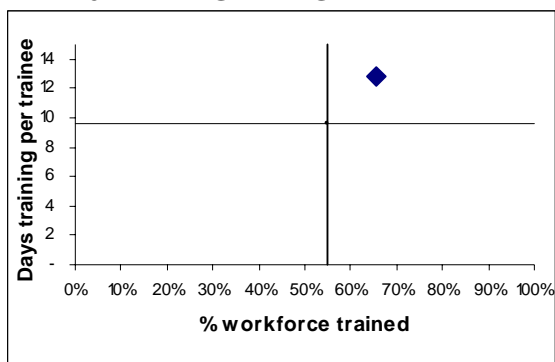
Employers in this cluster train their workforce intensively. Over three quarters of staff receive training. This appears to be linked to a high incidence of skills gaps in the workforce – all employers report that some staff have skills gaps and over half of employees are described as having skills gaps. Employers in the cluster are high users of further education colleges, but satisfaction levels are low. Half of the employers in the cluster recruit young people direct from education.

This cluster accounts for 3.4% of all employers - 47,000 establishments in total.

Training – Workforce Coverage and Volume

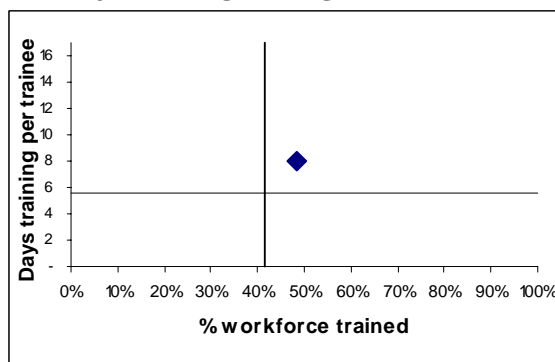
Employers in this cluster train their workforce intensively. Over three quarters of staff receive training. Average days of training per trainee is high for on-the-job and off-the-job training.

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume

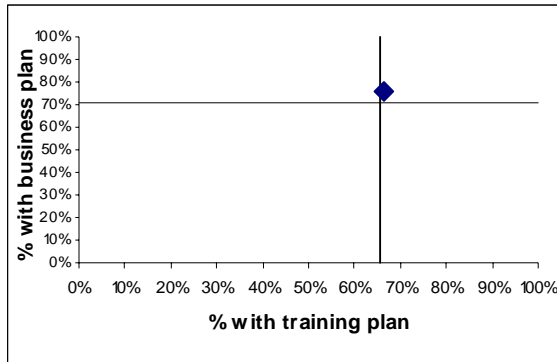


All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

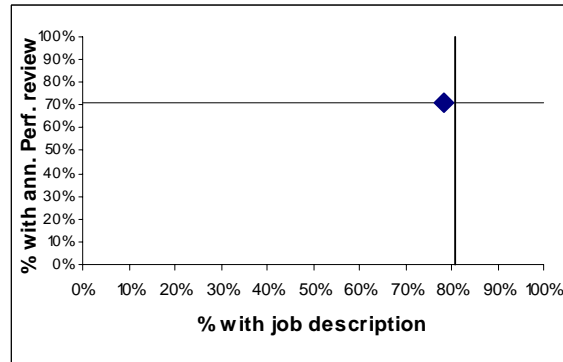
The proportion of employers with training and business plans is in line with the all Trainer average.

% employers with training and business plans



All Trainers: % with business plan = 71%
 All Trainers: % with training plan = 65%

% employees with formal reviews and job description



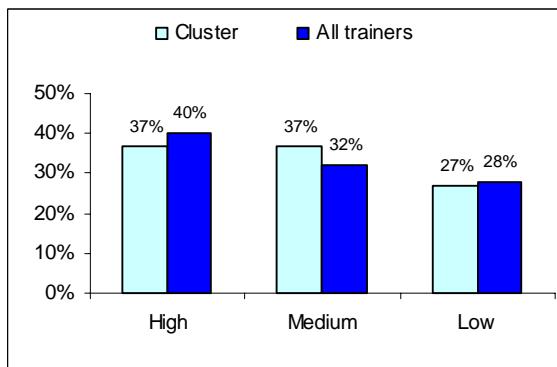
All employees in Trainer employers: % with annual performance review = 70%
 All employees in Trainer employers: % with job description = 81%

Employee Characteristics

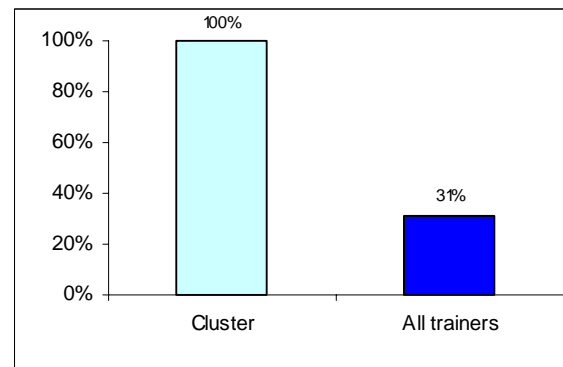
The skills mix of the workforce is close to average, with a slight bias towards medium-skilled employees. A high proportion of medium-skilled employees are in Sales and Customer Service occupations. Low skilled workers are predominantly in Elementary occupations – there are very few employees in Machine Operative occupations.

All establishments report skills gaps and over half of the workforce is described as having skills gaps (against an all Trainer average of 8%).

Employee skills profile



% employers reporting skills gaps

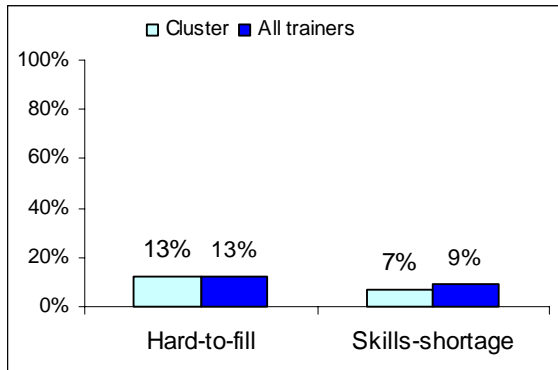


External Recruitment

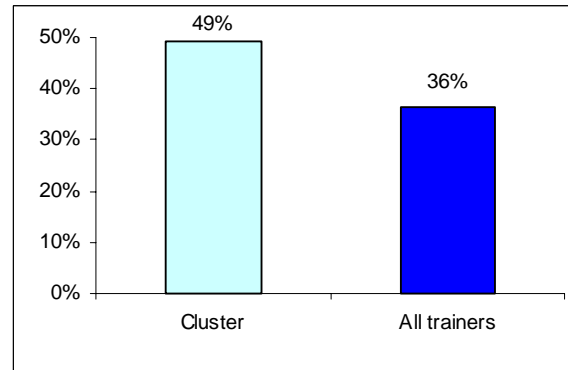
Vacancy rates are average.

These employers are more likely than average to tap into schools, colleges and universities for new recruits. Half of these employers recruit young people direct from education, compared to one third of employers across all Trainer clusters.

% employers reporting hard-to-fill and skills-shortage vacancies



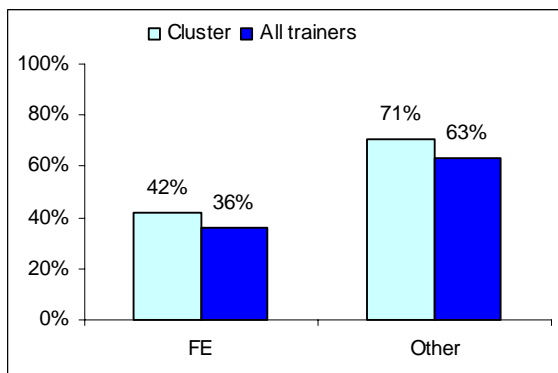
% employers recruiting young people direct from education



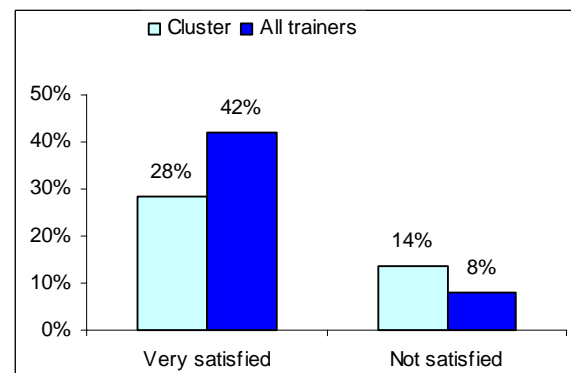
Qualifications and Training Providers

A high propensity to use FE colleges. Satisfaction rates are relatively low.

% employers using FE colleges and other external providers



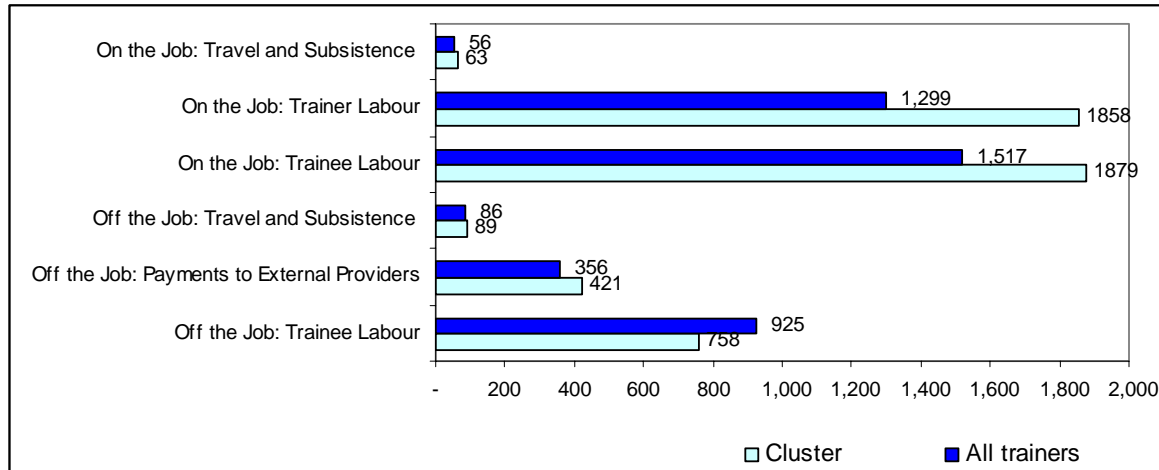
Satisfaction with FE colleges



Training Costs

Opportunity cost of trainee time is average for off-the-job training but high for on-the-job training. It seems likely that lower skilled staff receive more off-the-job training.

Average cost of training per trainee, £



Geography, Size, and Sectors

The regional distribution is very similar to that of all Trainers.

Predominantly small employers.

Retail, Hotels and Restaurants, Education, Health and Social Work. Private, public and voluntary sectors.

Policy Implications

- Suggestion of significant skills gaps in young people – young people leaving education without employability skills.
- High use of, but low satisfaction with FE colleges.

Selective Trainers – Low Volume: Off the Job Training

Cluster Description

A highly skilled labour force with good levels of administrative support. Only half of the workforce receives training. This is almost always off-the-job and each trainee receives on average, just 4.7 days training.

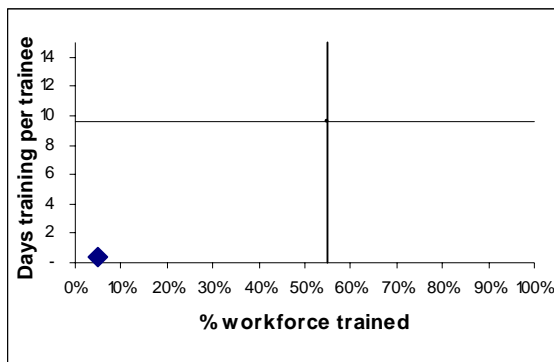
This cluster accounts for 7.4% of all employers - 103,000 establishments in total.

Training – Workforce Coverage and Volume

Employers in the cluster provide training to just half of their workforce – the lowest proportion of any Trainer cluster. Training is predominantly off-the-job, with trainees receiving an average of 4.7 days training. Only 5% of employees are trained on-the-job.

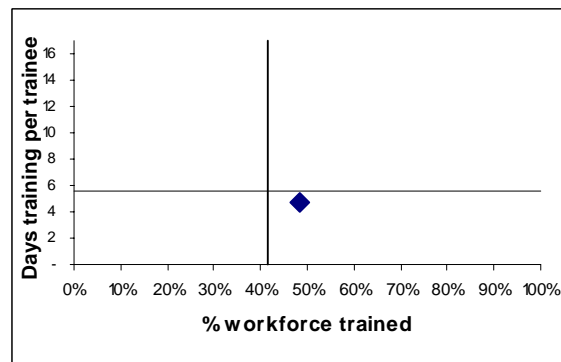
The proportion of staff trained to national qualifications is below average.

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume

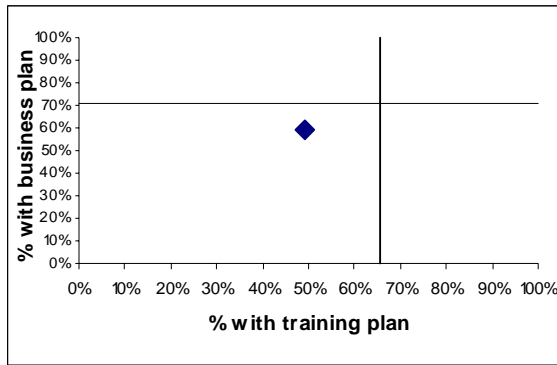


All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

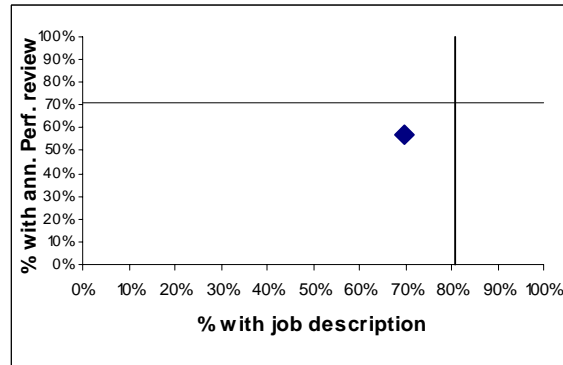
The cluster has a low percentage of employers with formal training plans, budgets and business plans.

% employers with training and business plans



All Trainers: % with business plan = 71%
 All Trainers: % with training plan = 65%

% employees with formal reviews and job description

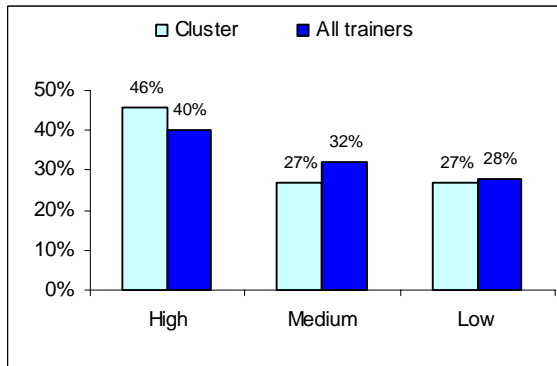


All employees in trainer employers: % with annual performance review = 70%
 All employees in Trainer employers: % with job description = 81%

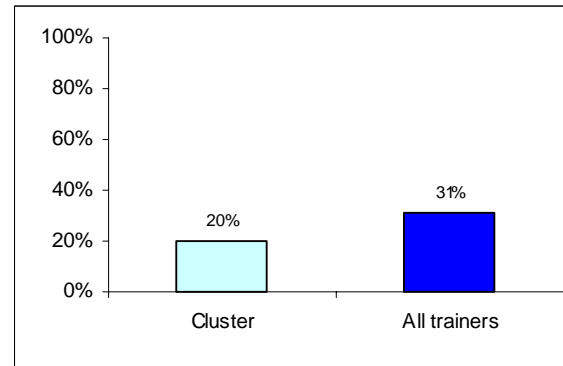
Employee Characteristics

A very high skilled workforce: 17% Managers; 11% Professionals; and 14% Skilled Trades. A high proportion of Administrative staff and very low proportions of Sales and Customer Service staff.

Employee skills profile



% employers reporting skills gaps

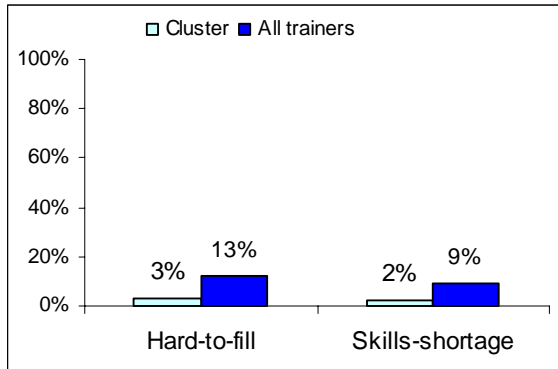


External Recruitment

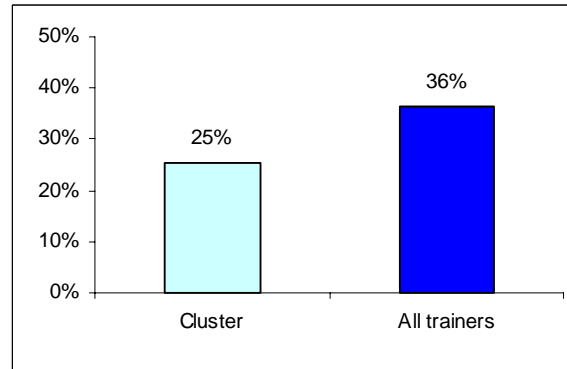
The number of employers having vacancies is below average, as is the incidence of hard-to-fill and skills-shortage-vacancies.

Only a quarter of employers in the cluster recruit young people direct from education, compared to one third of all Trainers.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education



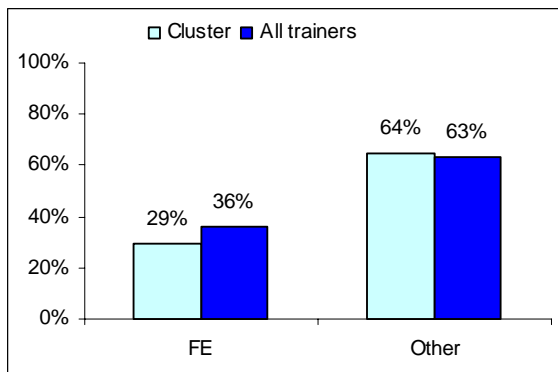
Qualifications and Training Providers

A below average proportion of staff are trained to national qualifications – 14% against an average of 19%.

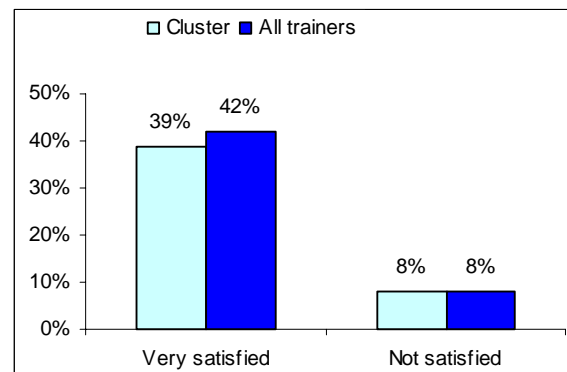
Use of FE colleges is below average, whereas use of other providers is line with the average. Satisfaction levels for colleges and other providers are about average.

Much of this external training is likely to be for CPD of professional staff.

% employers using FE colleges and other external providers



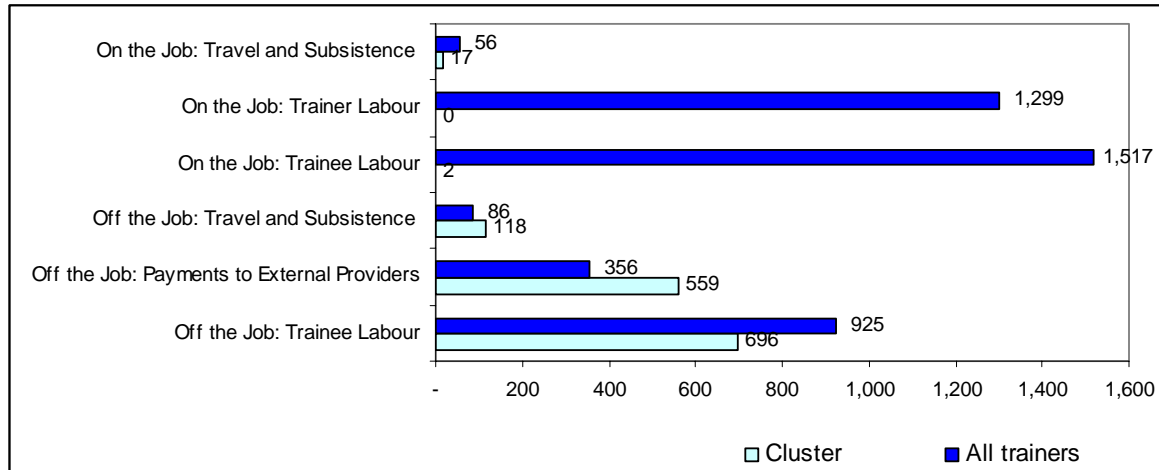
Satisfaction with FE colleges



Training Costs

Payments to external providers are high (£559 per trainee compared to an average figure of £356). The opportunity cost of trainee time is lower than average, which is a little surprising given the relatively high-skilled workforce.

Average cost of training per trainee, £



Geography, Size, and Sectors

The regional distribution is very close to that for all Trainers.

There is a predominance of small employers.

The cluster contains a high proportion of construction businesses (10% of employers in the cluster). There is a lower than average incidence of public sector employers.

Policy Implications

- Employers in this cluster provide limited training for higher skilled staff. In many cases, this may be justifiable as employees are highly skilled and do not require intensive training on an annual basis.
- However, higher levels of training might be required in some of these employers if they are to innovate and grow over time.

Selective Trainers – Low Volume: Low Skilled Workforce

Cluster Description

Employers in this cluster train a low proportion of their workforce and a high proportion of the workforce is low-skilled. Those who are trained receive a low volume of training. Only a handful of staff are trained to national qualifications. There is no particular industry focus, with most establishments being micro or small private firms. A relatively high proportion of employers in the cluster are in Southern England, including London.

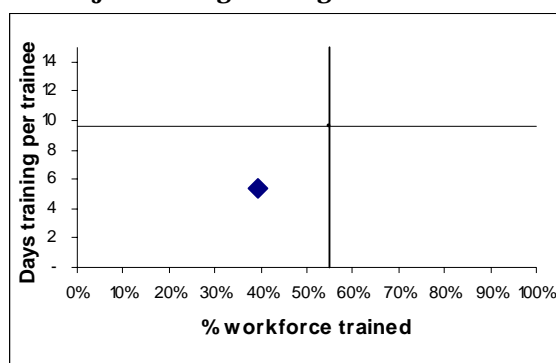
This cluster accounts for 3% of all employers - 42,000 establishments in total.

Training – Workforce Coverage and Volume

A low proportion of the workforce receives training - 57% versus an average of 69%. Of those trained, 39% are trained on-the-job and 24% off-the-job, suggesting that most employees receive one form of training or the other.

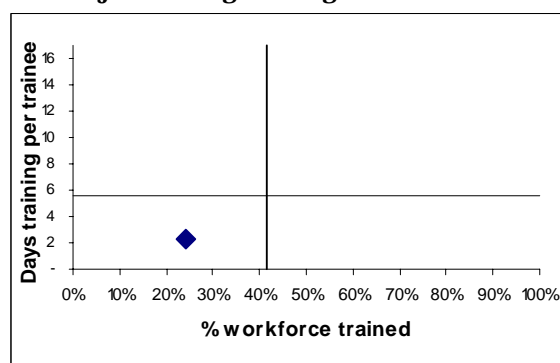
The volume of on-the-job and off-the-job training per trainee at 5.4 and 2.3 days respectively is well below the associated averages for all trainers.

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume

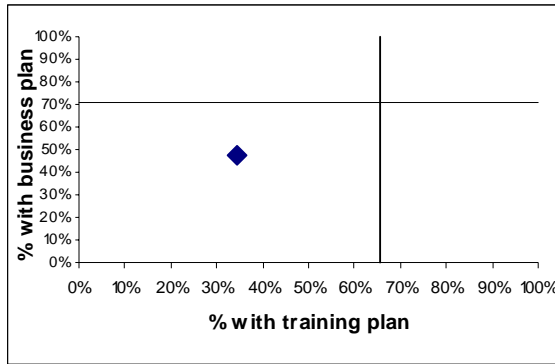


All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

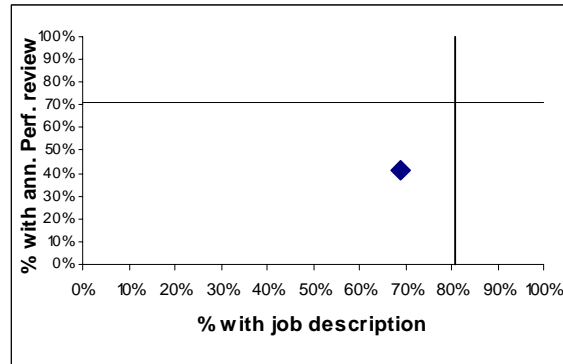
Low numbers have training plans, training budgets and procedures for assessment of training gaps. A low percentage of employees have formal job descriptions and annual performance reviews.

% employers with training and business plans



All Trainers: % with business plan = 71%
All Trainers: % with training plan = 65%

% employees with formal reviews and job description



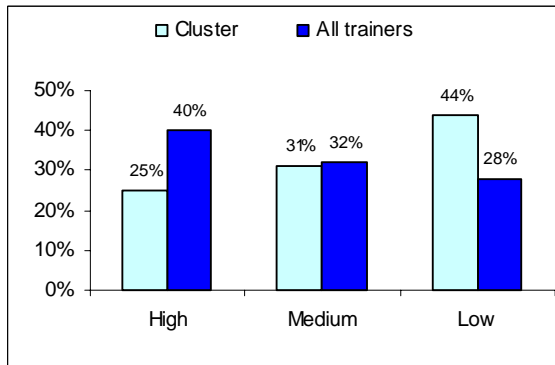
All employees in Trainer employers: % with annual performance review = 70%
All employees in Trainer employers: % with job description = 81%

Employee Characteristics

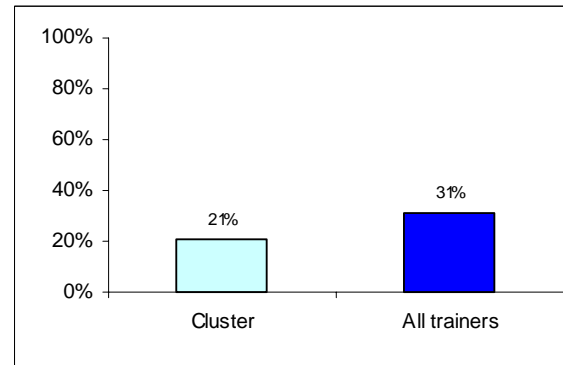
The cluster has the highest proportion of low-skilled workers in any Trainer cluster - 44% of employees (average of 28%). There are also relatively high proportions of employees in the Skilled Trades and Administration/Clerical occupations.

The incidence of skills gaps in the workforce is below average.

Employee skills profile



% employers reporting skills gaps

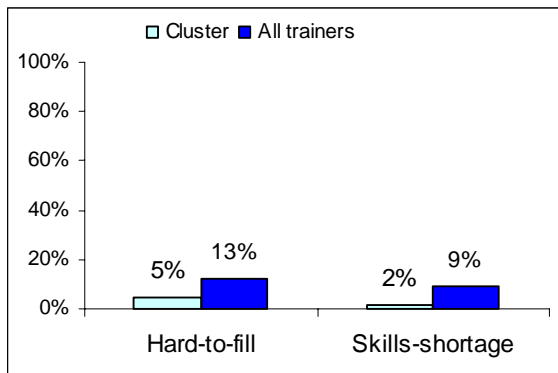


External Recruitment

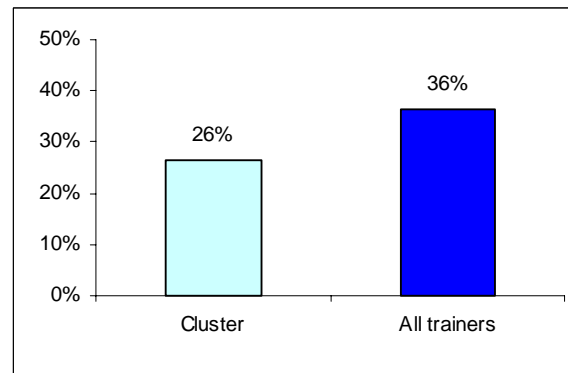
The incidence of vacancies, hard-to-fill vacancies, and skills-shortage vacancies is well below average.

The number of employers recruiting young people direct from education is below average.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education

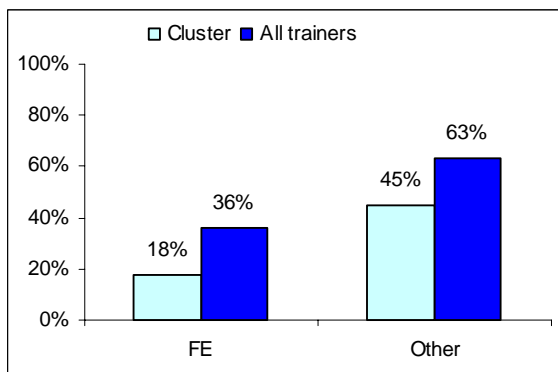


Qualifications and Training Providers

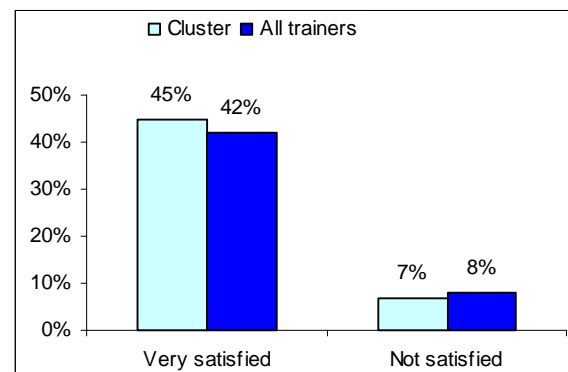
The proportion of staff trained to national qualifications is the lowest of all Trainer clusters – 5% against an average of 19%.

Little use is made of further education colleges.

% employers using FE colleges and other external providers



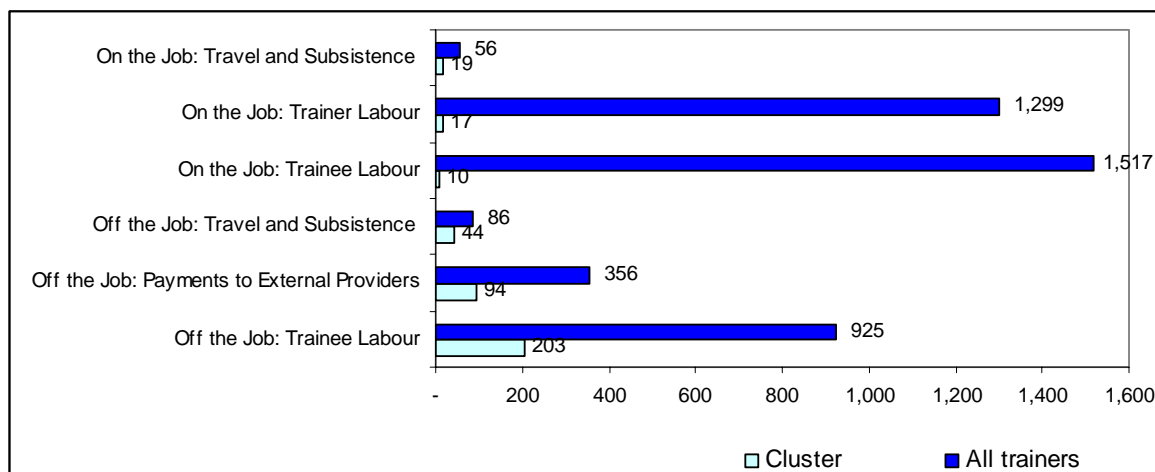
Satisfaction with FE colleges



Training Costs

Training costs are well below average, suggesting a relatively low value-added group of employers.

Average cost of training per trainee, £



Geography, Size, and Sectors

A bias to the South East and London (41% of all employers).

A high proportion of micro establishments (62%).

Employers from most sectors are represented. Low proportions in Education, and Health and Social Work. There is a high proportion of profit-making organisations.

Policy Implications

- A high proportion of low-skilled employees receiving little or no training. The cluster appears to consist of low value-added companies that perceive little benefit to training.
- A challenge to engage these employers and their employees in the skills agenda. Employers are unlikely to see benefits to training and employees may face time/cost constraints to learning in their own time.

Selective Trainers – High Volume: On the Job Training

Cluster Description

A lower than average proportion of staff receive training, which is almost always provided on-the-job. Retail and wholesale trade businesses are well represented and a high proportion of staff are in sales/customer service roles – most are likely to be qualified to level 1 or 2. Little use is made of FE colleges and a low proportion of staff are trained to national qualifications.

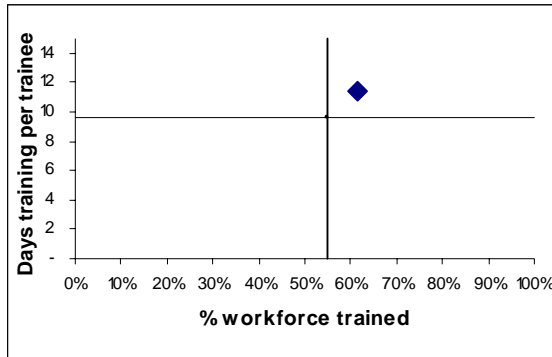
This cluster accounts for 13.7% of all employers – 191,000 establishments in total.

Training – Workforce Coverage and Volume

A lower than average proportion of staff receive training – 62% versus an average of 69% for all Trainers. Training is almost always provided on-the-job; only 5% of the workforce is trained off-the-job.

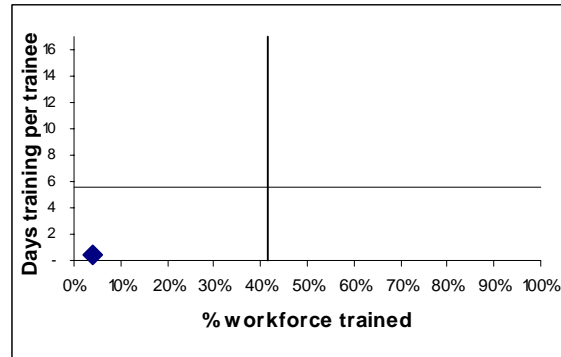
The volume of on-the-job training per trainee, at 10.8 days, is somewhat above the average for all Trainers (11.4 days). The few staff who receive off-the-job training receive very little – just 0.5 days per trainee.

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume

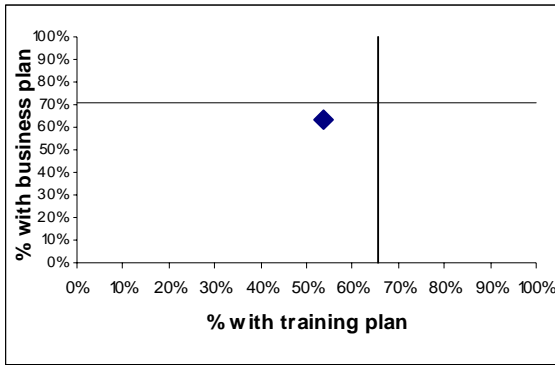


All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

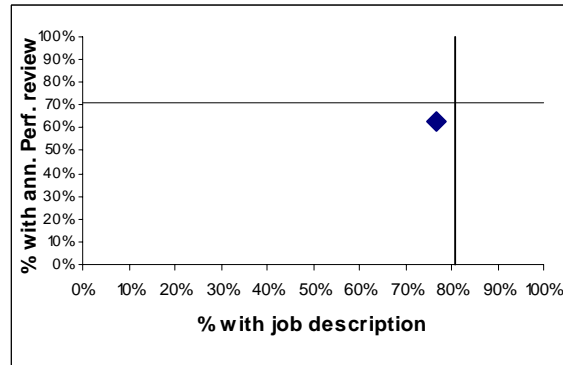
Lower than average numbers have training plans and business plans. The percentage of employees with formal job descriptions and annual performance reviews is also somewhat below average.

% employers with training and business plans



All Trainers: % with business plan = 71%
 All Trainers: % with training plan = 65%

% employees with formal reviews and job descriptions



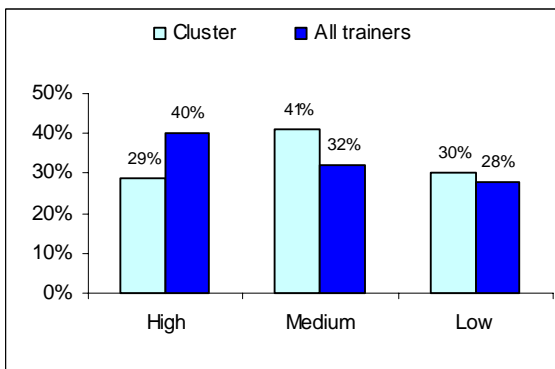
All employees in Trainer employers: % with annual performance review = 70%
 All employees in Trainer employers: % with job description = 81%

Employee Characteristics

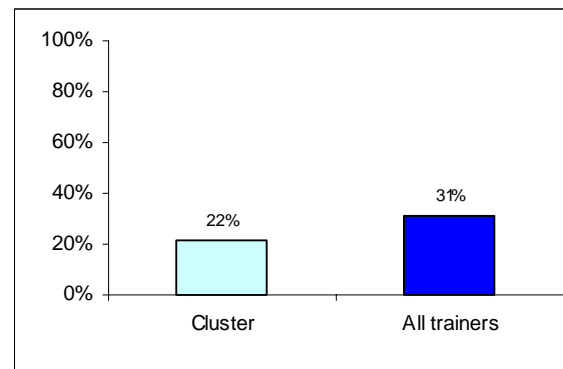
This cluster has a high proportion of medium-skilled employees, two thirds of who work in Sales and Customer Service roles. The main tasks in these occupations involve knowledge of sales techniques, a degree of knowledge regarding the product or service being sold, familiarity with cash and credit handling procedures and some record keeping associated with those tasks. Most occupations in this occupational group require a general education and skills in interpersonal communication. Training is likely to be highly specific to the business.

A below average proportion of employers identified skills gaps in their workforce (22%).

Employee skills profile



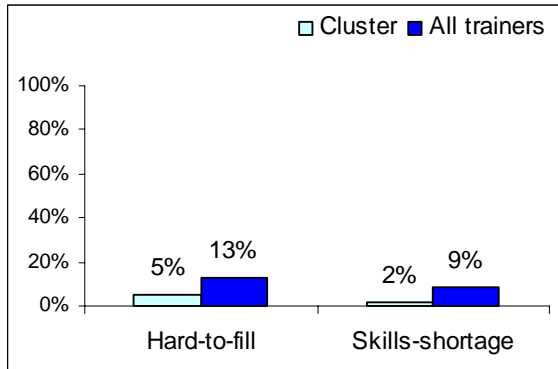
% employers reporting skills gaps



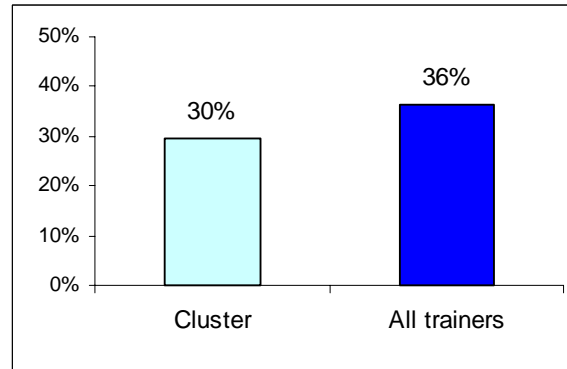
External Recruitment

The number of employers having vacancies is well below average and there are very few skills-shortage-vacancies. The number of employers recruiting young people direct from education is below average (30% versus 36%).

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education

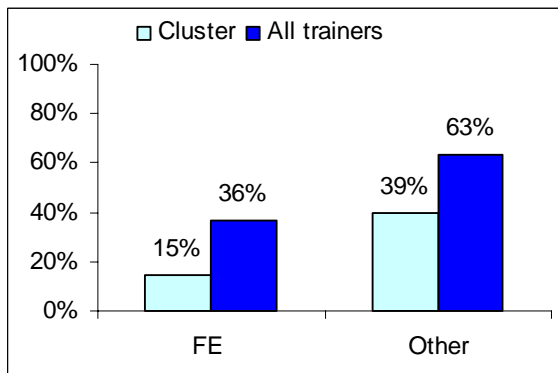


Qualifications and Training Providers

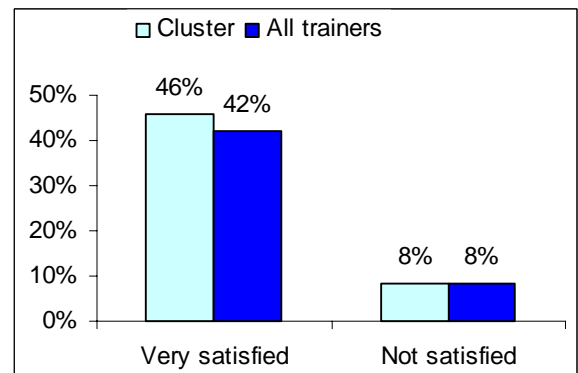
Relatively few staff are trained to national qualifications – 11% against an average of 19% for all Trainers.

Little use is made of further education colleges. This is not surprising given the lack of off-the-job training. Almost half of employers who do use colleges are ‘very satisfied’.

% employers using FE colleges and other external providers



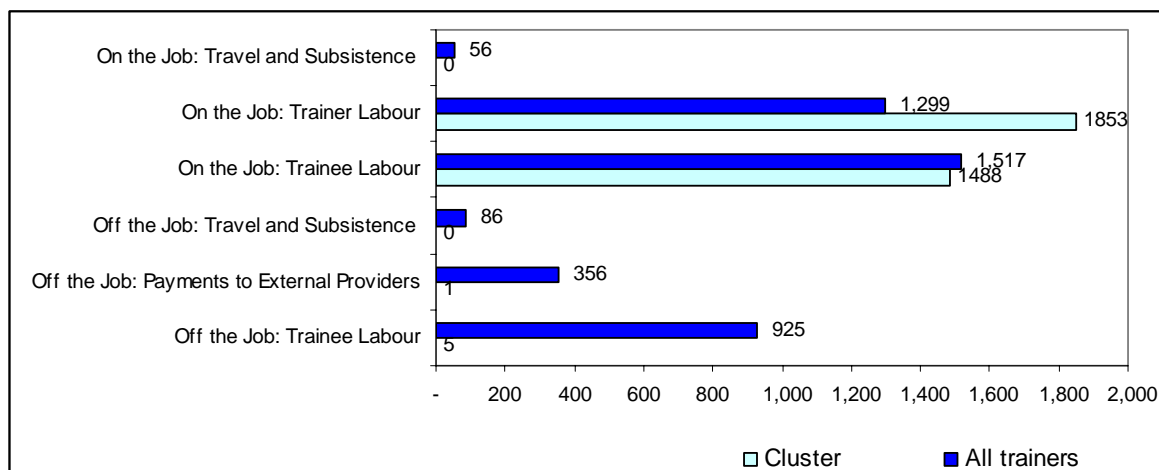
Satisfaction with FE colleges



Training Costs

On-the-job trainee opportunity cost is just below average, whereas on-the-job trainer cost is significantly above average – suggesting that experienced skilled staff are providing training to less experienced and skilled colleagues. On-the-job training is provided at the employees’ home base, rather than centralised training centres (travel and subsistence costs for on-the-job training are zero).

Average cost of training per trainee, £



Geography, Size, and Sectors

The regional mix is very similar to that for All Trainers.

Employers in the cluster are small (24 employees average). There is a high proportion of micro enterprises with less than 10 employees.

Employers are spread across most industries with quite high proportions of Retail and Wholesale sector businesses. There is a higher than average proportion of profit making organisations (91% versus average for All Trainers of 82%).

Policy Implications

- Many employees in the cluster will not have high level skills and are probably receiving predominantly company-specific training – as witnessed by the lack of off-the-job training.
- A low proportion of employees are trained to national qualifications. Many are likely to be older adults and might have been outside formal education for some time. Workers in these employers may be difficult to engage for up-skilling. Employers in this cluster are an important target market for Train to Gain.

Selective Trainers – High Volume: High Skilled Workforce

Cluster Description

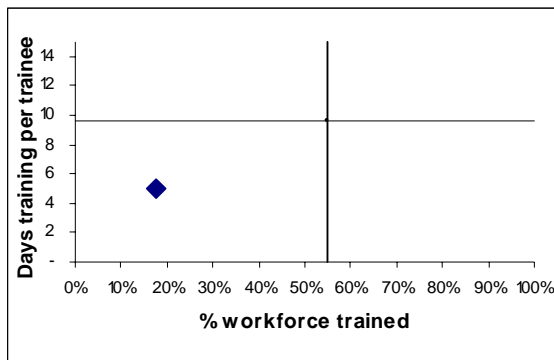
Employers in this cluster have a very high-skilled workforce and train them intensively through external courses. They are above average users of FE colleges. A relatively high proportion of employers are based in the North. Although only 56% of staff were trained in the last 12-months, this might not imply that a high proportion of staff are never trained – training may be intensive, at relatively long intervals.

This cluster accounts for 3.6% of all employers - 51,000 establishments in total.

Training – Workforce Coverage and Volume

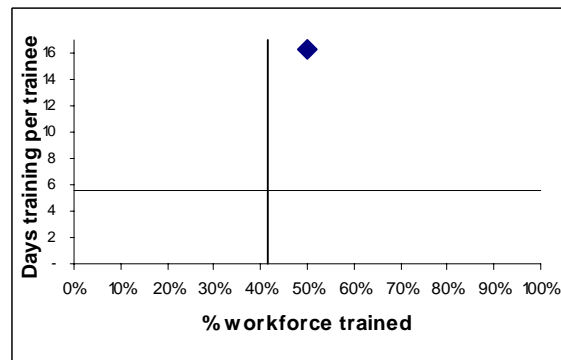
Only 56% of the workforce are trained – 50% of staff are trained off-the-job and 18% on-the-job. Most staff therefore receive only off-the-job training. Off-the-job trainees receive an average of 16.3 days of training each – three times the average for all trainers. The intensity of on-the-job training is low.

On-the-job training: coverage and volume



All Trainers: annual average days training per trainee = 9.6
All Trainers: % workforce trained on-the-job = 55%

Off-the-job training: coverage and volume

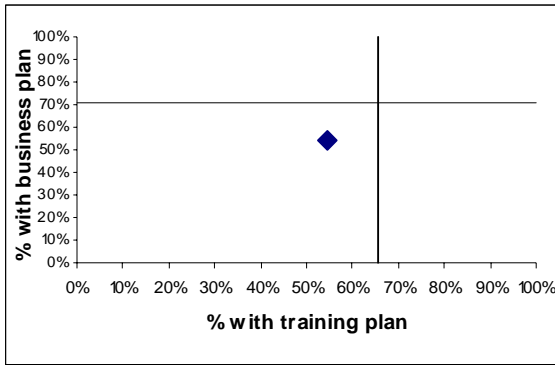


All Trainers: annual average days training per trainee = 5.5
All Trainers: % workforce trained off-the-job = 42%

Business Processes

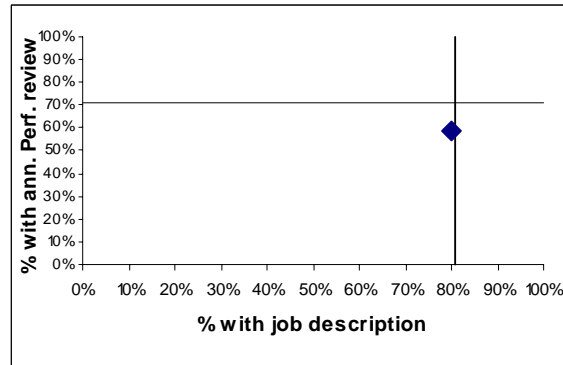
Relatively low proportions of employers have training plans and budgets. However, four out of five staff do have a formal job description – in line with the average for staff across all Trainer clusters.

% employers with training and business plans



All Trainers: % with business plan = 71%
 All Trainers: % with training plan = 65%

% employees with formal reviews and job description

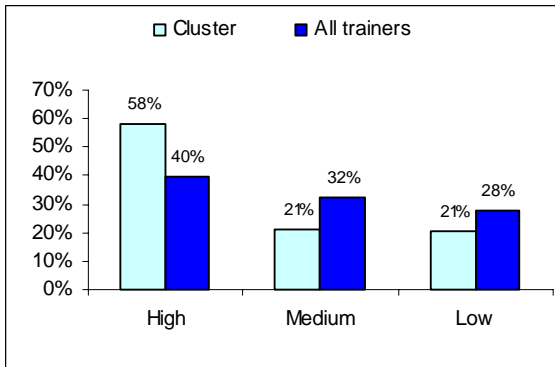


All employees in Trainer employers: % with annual performance review = 70%
 All employees in Trainer employers: % with job description = 81%

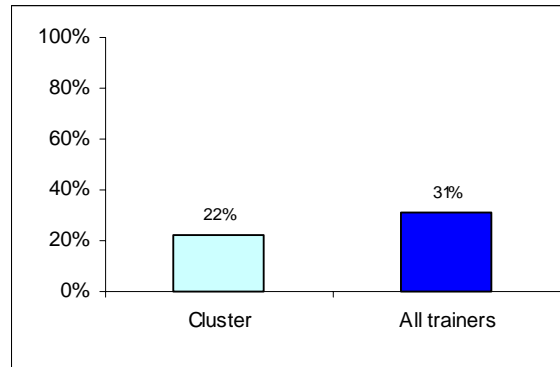
Employee Characteristics

A very high skilled labour force with a broad mix of higher skilled occupations - Managers, Skilled Trades and Professionals - but with a bias towards Associate Professionals (21% of the workforce).

Employee skills profile



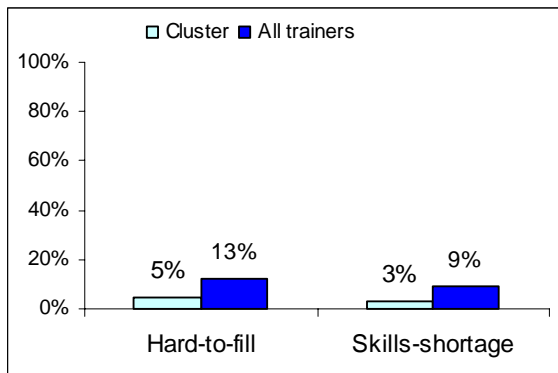
% employers reporting skills gaps



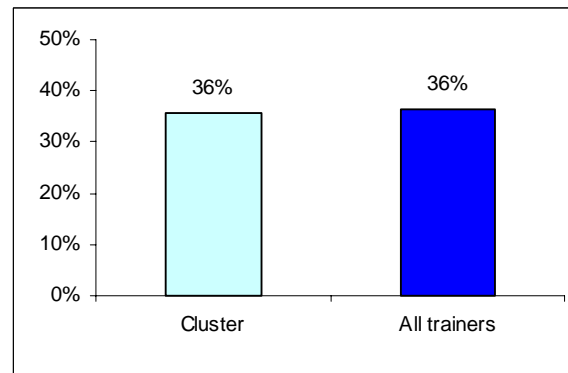
External Recruitment

Vacancy levels are low. An average proportion of employers recruit direct from education.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education

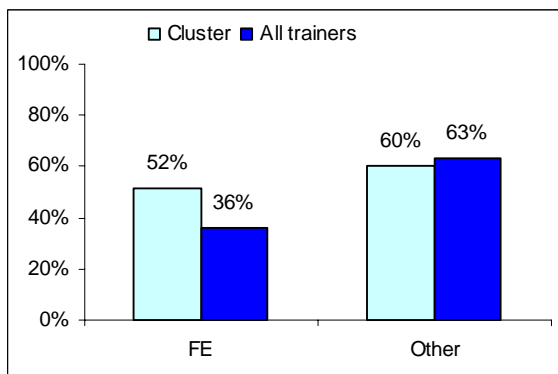


Qualifications and Training Providers

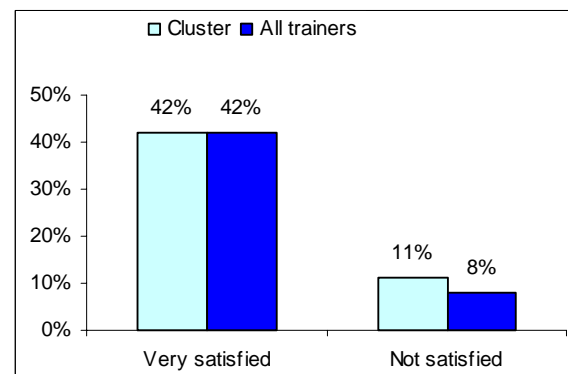
Employers in this cluster are reliant on FE colleges and other providers to meet their training needs. Propensity to use FE colleges is high, with over half of employers using them.

An above average proportion of the workforce is trained to national qualifications.

% employers using FE colleges and other external providers



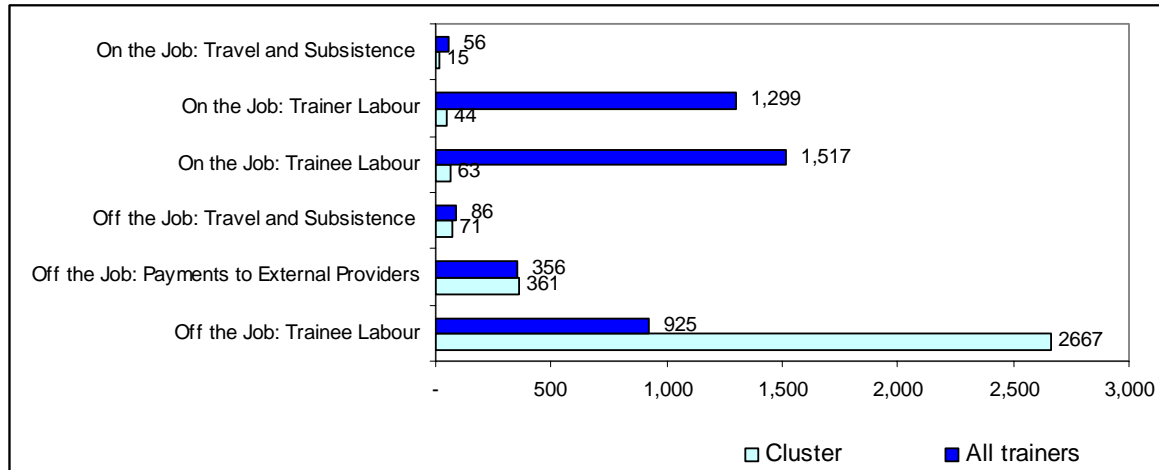
Satisfaction with FE colleges



Training Costs

The opportunity cost of trainee time for off-the-job training is high – almost three times the all Trainer average. However, payments to external providers are in-line with the all Trainer average.

Average cost of training per trainee, £



Geography, Size, and Sectors

There is some bias towards the North of England.

Small businesses predominate.

The cluster has the highest proportion of Construction businesses of any cluster – 13% of employers. Other major sectors are Manufacturing (13%), Health and Social Work (13%), and Education (8%). The private, public and voluntary sectors are all represented.

Policy Implications

- A risk that low skilled staff are missing out on training.

5. Cluster Profiles: Non-Trainers

This section profiles the four Non-Trainer clusters.

5.1 Indicators for the Non-Trainer Clusters

For each Non-Trainer cluster, we report the values for a number of indicators and the average values for all Non-Trainers.

We have classified indicators into five categories as follows:

- Reasons for Not Training;
- Business Processes;
- Employee Characteristics;
- External Recruitment; and
- Geography, Size, and Sectors.

We also note some policy implications.

Non-Trainers: Smaller and Inexperienced

Cluster Description

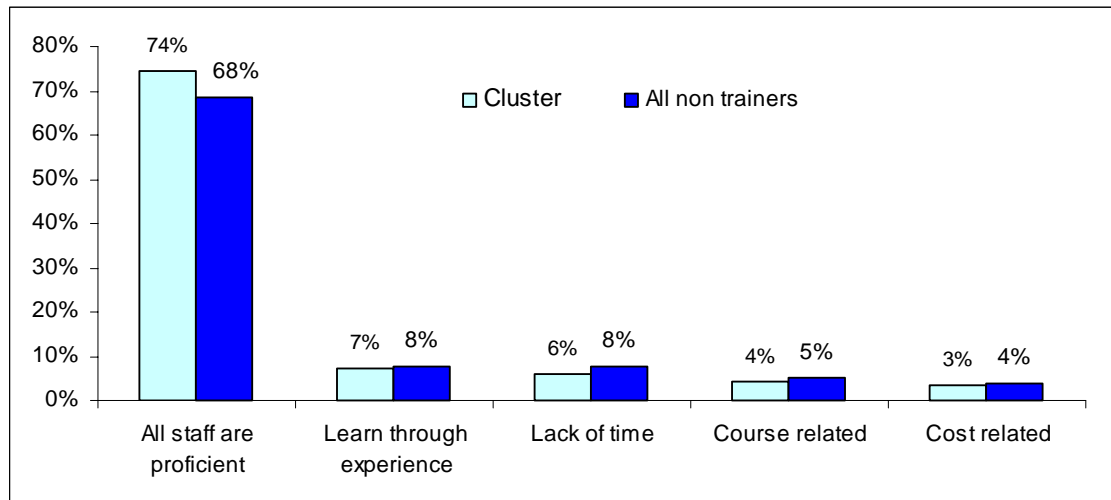
Businesses in this cluster have just five employees on average, and many are likely to be owner managed businesses in the early stages of their development. Few of these businesses have formal planning and/or staff appraisal processes. There is a high proportion of high skilled occupations, most of which are Managers and Skilled Trades. These employers are likely to have unrecognised skills gaps and would probably benefit from training in basic business processes: ICT, accounting, procurement etc.

This cluster accounts for 16.5% of all employers - 232,000 establishments in total.

Reasons for Not Training

As with all non-trainer employers, the most frequently cited reason for not providing training is that 'all staff are fully proficient'.

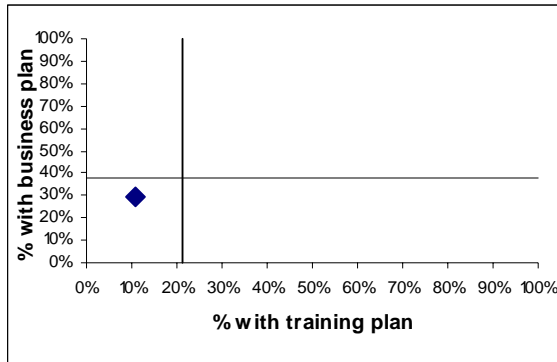
Summary of reasons cited for non training



Business Processes

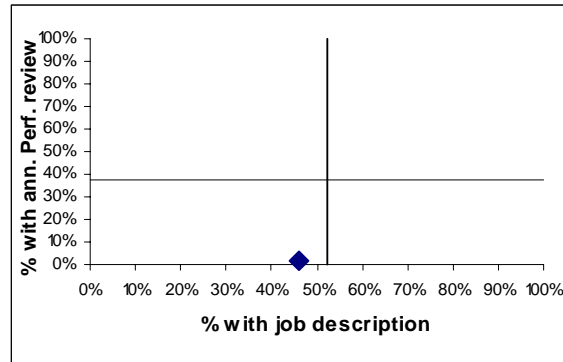
Employers in the cluster are less likely than all Non-Trainers to have formal business and training plans in place. Whilst almost half of employees have a job description, almost no employees are subject to a formal performance assessment.

% employers with training and business plans



All Non-Trainers: % with business plan = 37%
 All Non-Trainers: % with training plan = 21%

% employees with formal reviews and job description



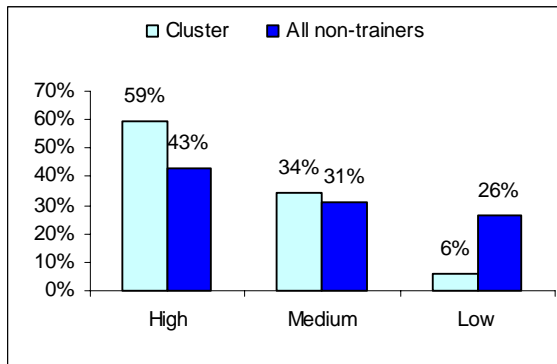
All employees in Non-Trainer employers: % with annual performance review = 52%
 All employees in Non-Trainer employers: % with job description = 34%

Employee Characteristics

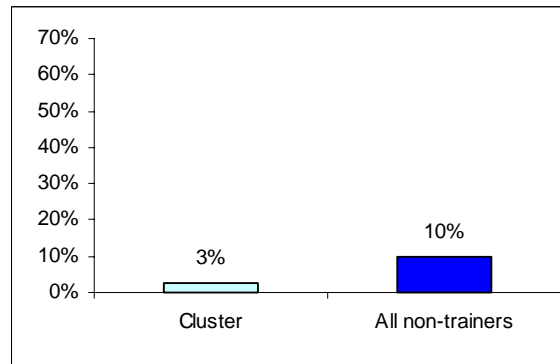
The skill make-up of the workforce is heavily skewed towards high skilled occupations – only 6% of the workforce is in low skilled occupations. Most of the high skilled workers are Managers and Skilled Trades occupations – there are relatively few professionals. Sales and Customer Service employees account for over half of the medium skilled staff.

The incidence of employers reporting skills gaps is very low.

Employee skills profile



% employers reporting skills gaps

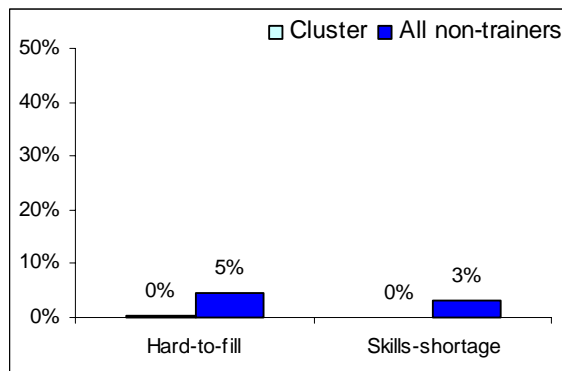


External Recruitment

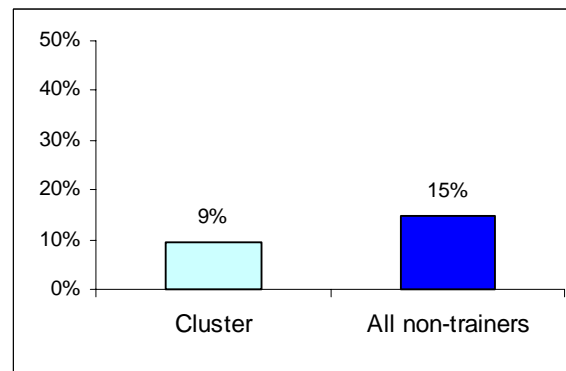
There are no employers with hard-to-fill or skills-shortage vacancies.

Few employers recruit young people direct from education.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education



Geography, Size, and Sectors

The regional distribution is the same as that for all Non-Trainers (54% in London and the South and 46% in the Midlands and the North).

Predominantly private sector micro businesses (91%), with just 5 employees on average.

The sector mix is somewhat different from the average for all Non-Trainers. The following sectors have above average representation: Hotels and Restaurants (15% v 7%); and Sale, Maintenance and Repair of Motor Vehicles (8% v 5%). The following have below average representation: Retail (8% v 13%); and Health and Social Work (1% v 4%).

Policy Implications

- Employers in this cluster would probably benefit from business process specific training to support future business growth.
- BusinessLink and/or other business support groups may be able to interest employers in this cluster in training, as part of a broader package of business support.

Non-Trainers: Larger and Experienced

Cluster Description

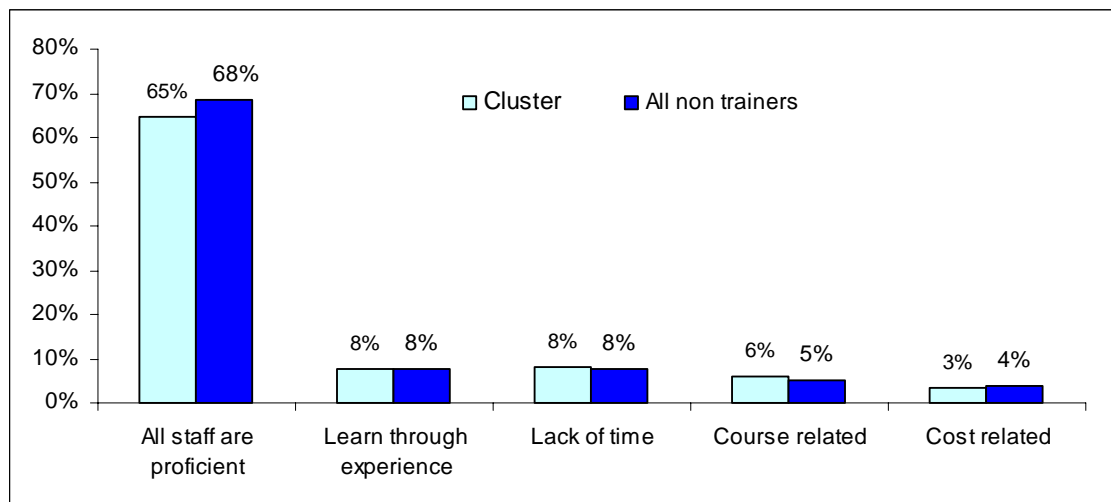
Employers in this cluster have a high proportion of staff in professional occupations. The occupational mix would suggest a need for CPD for many staff, but only 26% of employers have a training plan. It appears that many employers in the cluster do not see the business benefits of training.

This cluster accounts for 10.4% of all employers - 146,000 establishments in total.

Reasons for Not Training

As with all Non-Trainer employers, the most frequently cited reason for not providing training is that 'all staff are fully proficient'.

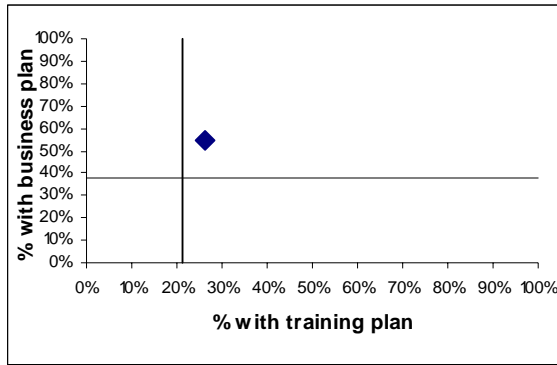
Summary of reasons cited for non training



Business Processes

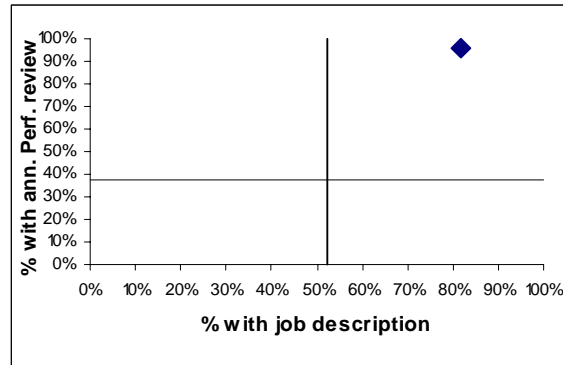
Employers in the cluster are more likely than all Non-Trainers to have formal business and training plans in place. Most employees in the cluster have job descriptions and an annual performance review.

% employers with training and business plans



All Non-Trainers: % with business plan = 37%
 All Non-Trainers: % with training plan = 21%

% employees with formal reviews and job description



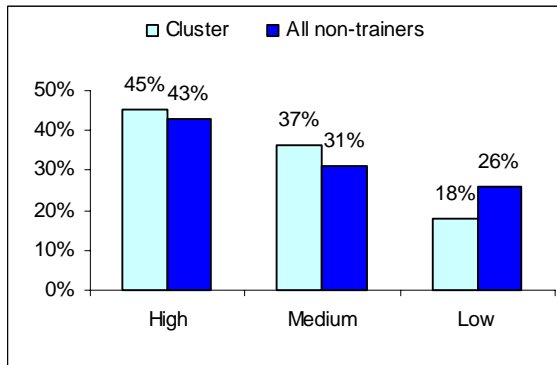
All employees in Non-Trainer employers: % with annual performance review = 52%
 All employees in Non-Trainer employers: % with job description = 34%

Employee Characteristics

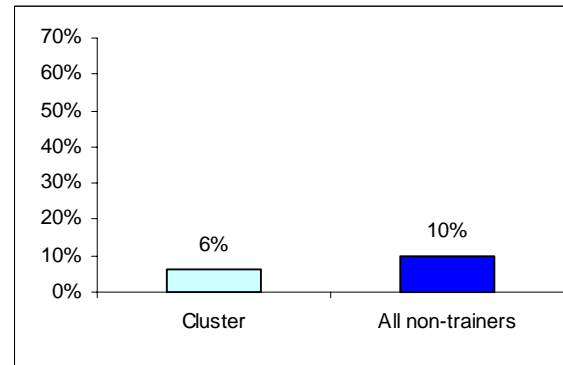
The skill make-up of the workforce is somewhat skewed towards high and medium skilled occupations. There are high proportions of professionals and administrative staff.

The incidence of employers reporting skills gaps is below the Non-Trainer average.

Employee skills profile



% employers reporting skills gaps

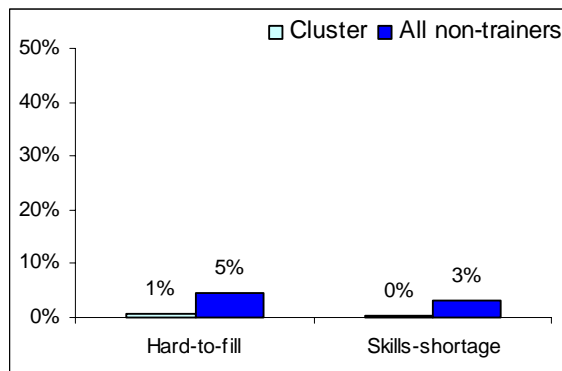


External Recruitment

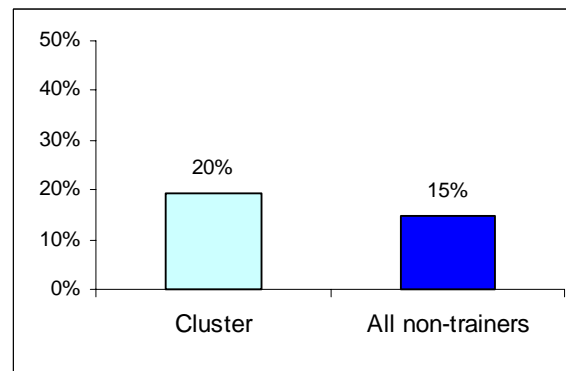
There are few employers with hard-to-fill vacancies and none with skills-shortage vacancies.

The proportion of employers that recruit young people direct from education is 20%, 5% points above the Non-Trainer average.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education



Geography, Size, and Sectors

The regional distribution is heavily skewed towards London and the South of England (63% versus 56% for all non-trainers), with 29% of employers located in London (19% for all Non-Trainers).

Predominantly micro (69%) and small (25%) employers, but a higher average number of employees than for all Non-Trainers (19 versus 11 employees).

The sector mix is quite similar to that for all Non-Trainers.

Policy Implications

- Employers in the cluster have a highly skilled workforce and few have staff with skills shortages. Staff retention is good and few employers have vacancies. Those who do, have no difficulty filling them.
- A majority of employers in this cluster have a business plan and the large majority of staff have a job description and an annual performance assessment. But only 39% have a training plan and 26% a training budget. It appears that although many employers in this cluster do plan their business carefully, many do not see the business benefits of training.

Non-Trainers: Low Skilled Workforce

Cluster Description

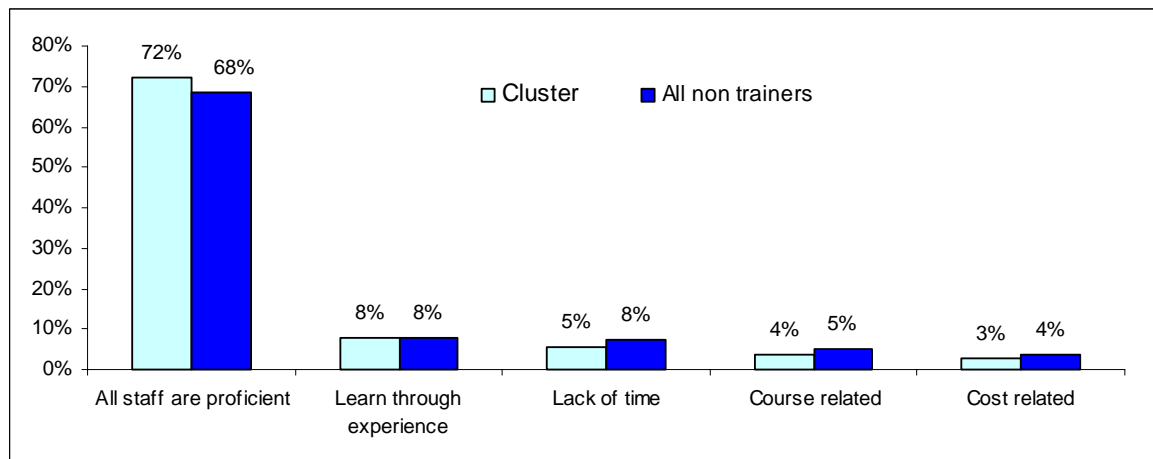
Employers in this cluster have few high or medium skilled employees – three quarters of staff are low skilled. High/medium skilled staff are generally managers and administrative staff – there are very few professionals in the cluster. One fifth of employers in the cluster are in the Hotels and Restaurants sector. Manufacturing, Agriculture and Land Transport are also well represented.

This cluster accounts for 5.1% of all employers - 71,000 establishments in total.

Reasons for Not Training

As with all Non-Trainer employers, the most frequently cited reason for not providing training is that 'all staff are fully proficient'.

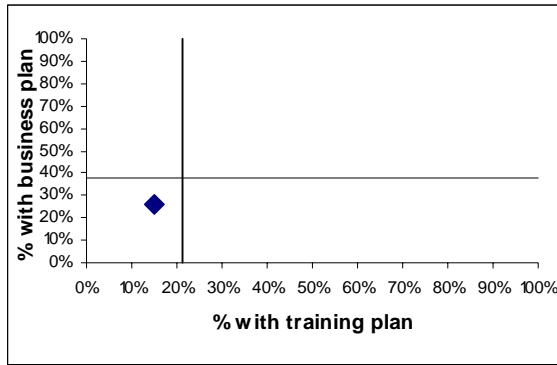
Summary of reasons cited for non training



Business Processes

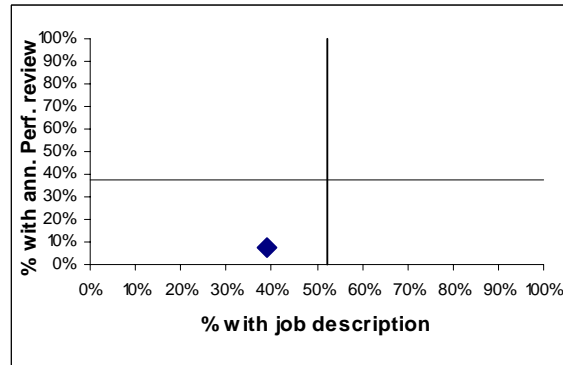
Employers in the cluster are less likely than all Non-Trainers to have formal business and training plans in place.

% employers with training and business plans



All Non-Trainers: % with business plan = 37%
 All Non-Trainers: % with training plan = 21%

% employees with formal reviews and job description



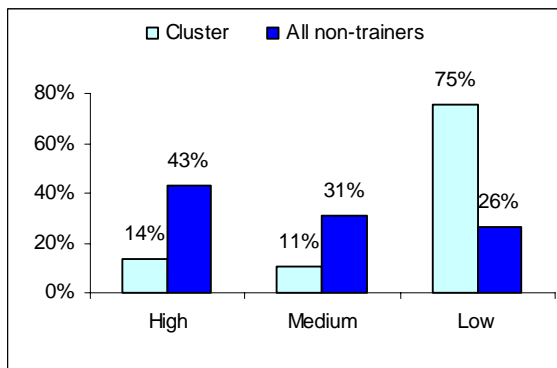
All employees in Non-Trainer employers: % with annual performance review = 52%
 All employees in Non-Trainer employers: % with job description = 34%

Employee Characteristics

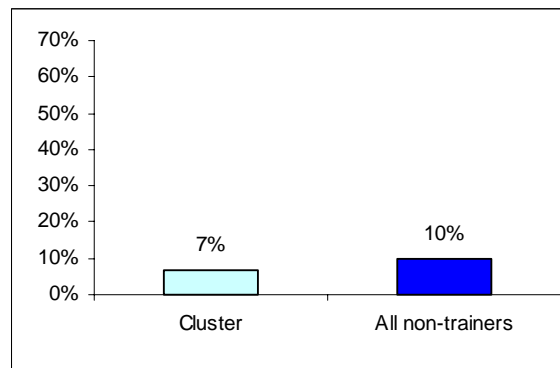
The skill make-up of the workforce is heavily skewed towards low skilled occupations - three quarters of employees are in low skilled occupations.

The incidence of employers reporting skills gaps is below the Non-Trainer average.

Employee skills profile



% employers reporting skills gaps

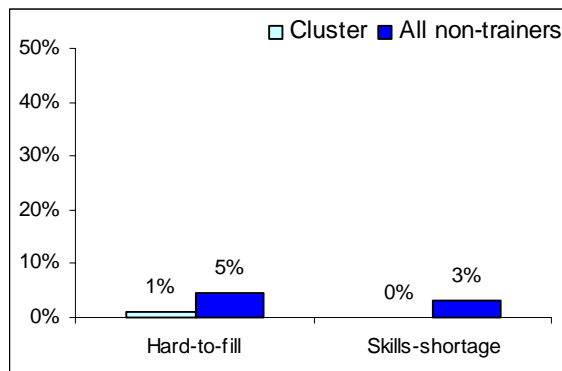


External Recruitment

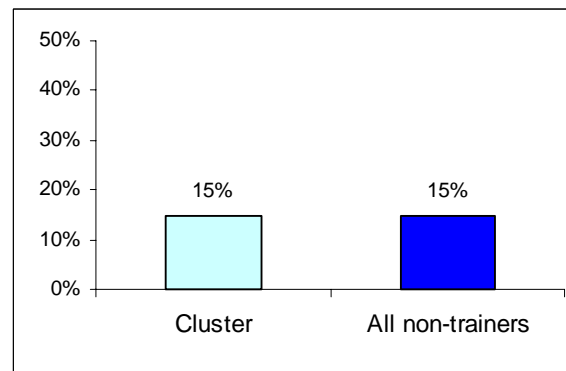
There are few employers with hard-to-fill vacancies and none with skills-shortage vacancies.

The proportion of employers that recruit young people direct from education is 15%, equal to the non-trainer average figure.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education



Geography, Size, and Sectors

The regional distribution is skewed towards the Midlands and the North (54% versus 44% for all Non-Trainers). Only 9% of employers are located in London (19% for all Non-Trainers).

Predominantly micro (71%) and small (26%) employers. Average size of 13 employees, compared to 11 employees for all Non-Trainers.

The sector mix is quite different from the average for all employers. The following sectors have above average representation: Manufacturing (16% of cluster employers versus 13% of all Non-Trainer employers); Wholesale Trade (11% v 8%); Hotels and Restaurants (20% v 7%); and Land Transport (10% v 4%). The following are amongst those with below average representation: Retail (7% v 13%); Health and Social Work (1% v 4%) and Construction (4% v 6%).

Policy Implications

- Employers in the cluster have a low skilled workforce and do not perceive a need to provide training. It is likely to be challenging to persuade these employers to participate in Train to Gain.
- Employees in this sector are likely to face barriers to participating in learning in their own time. Many work in sectors where unsociable working hours are common (e.g. Hotels and Restaurants).

Non-Trainers: Facing Practical Barriers

Cluster Description

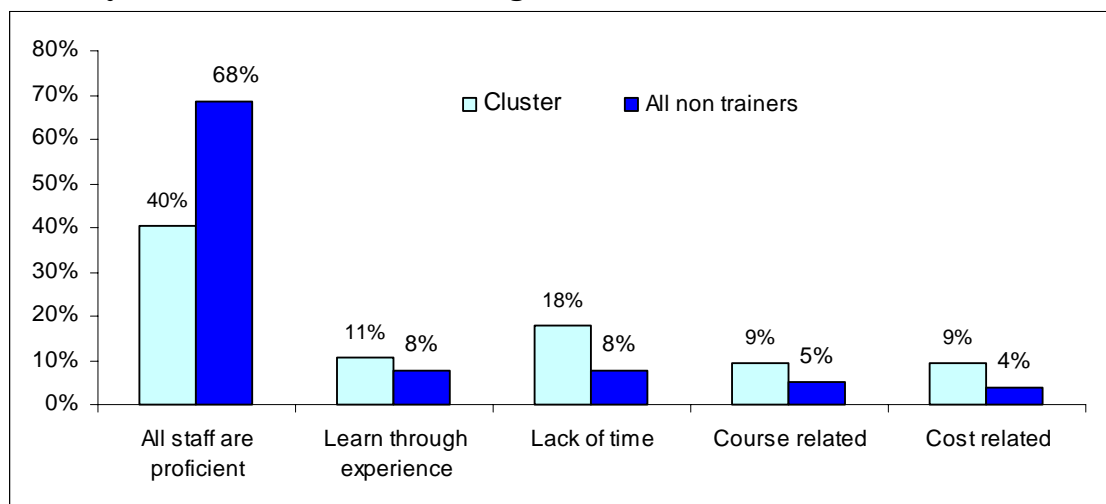
Many employers in the cluster recognise a requirement for training – 28% have a training plan - but are held back by practical constraints, such as a lack of time, inappropriate or badly timed courses, and the high cost of external courses. A high proportion of employers recruit young people direct from education. Two thirds of employers recognise skills gaps in their workforce and one third report skills-shortage vacancies.

This cluster accounts for 3% of all employers - 42,000 establishments in total.

Reasons for Not Training

As with all Non-Trainer employers, the most frequently cited reason for not providing training is that 'all staff are fully proficient'. However, only 40% of employers cite this, compared to 68% of all Non-Trainers. Other factors such as a lack of time are a significant barrier to training for these employers.

Summary of reasons cited for not training

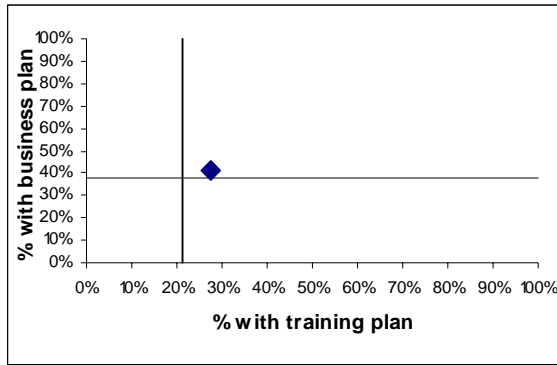


Looking at these categories in more detail, 7% of employers reported that external courses are too expensive, 5% that the courses they are interested in are not available locally, and 5% that employees are too busy to go on training courses.

Business Processes

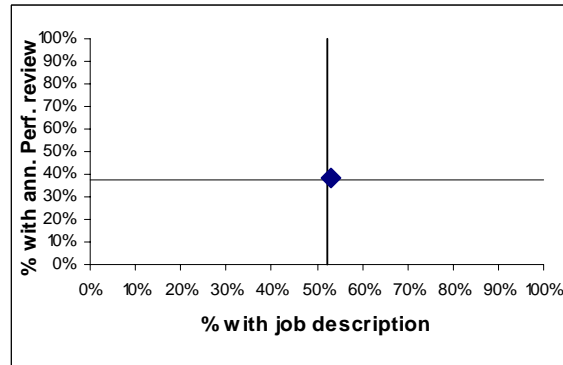
Employers in the cluster are more likely than all non-trainers to have formal business and training plans in place. The proportion of employees with formal job descriptions and performance reviews is in-line with the Non-Trainer average.

% employers with training and business plans



All Non-Trainers: % with business plan = 37%
 All Non-Trainers: % with training plan = 21%

% employees with formal reviews and job description



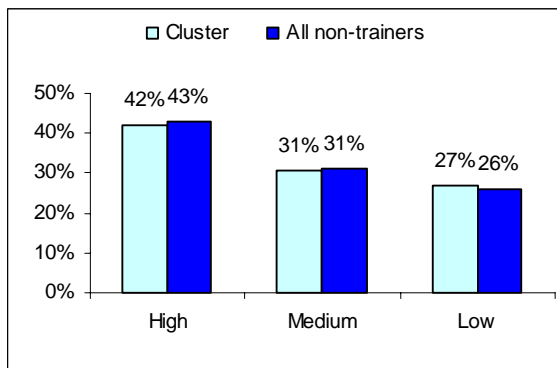
All employees in Non-Trainer employers: % with annual performance review = 52%
 All employees in Non-Trainer employers: % with job description = 34%

Employee Characteristics

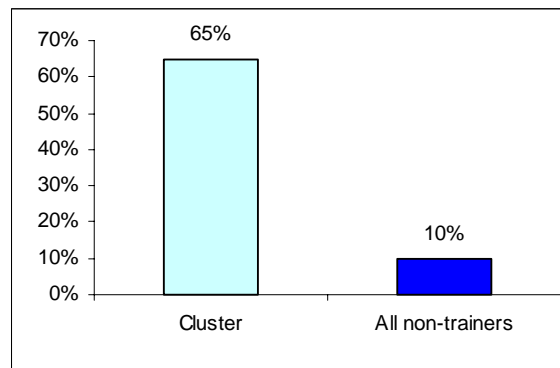
The skill make-up of the workforce is very close to the average for all Non-Trainers.

The incidence of employers reporting skills gaps is very high – 65% report skills gaps, and 29% of employees are described as having skills gaps (just 4% for all Non-Trainers).

Employee skills profile



% employers reporting skills gaps

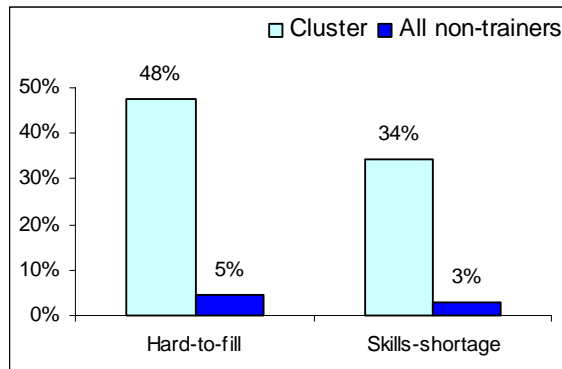


External Recruitment

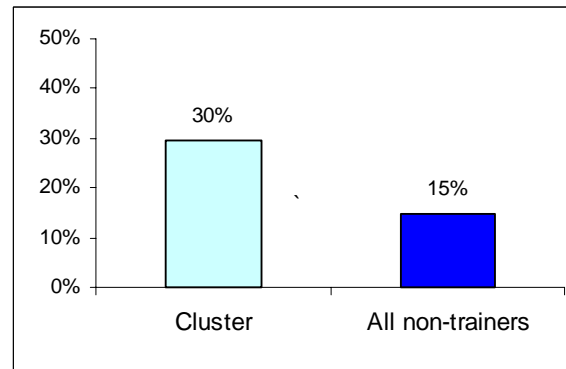
The incidence of employers with hard-to-fill and skill-shortage vacancies is very high.

The proportion of employers that recruit young people direct from education is double the all Non-Trainer average, at 30%.

% employers reporting hard-to-fill and skills-shortage vacancies



% employers recruiting young people direct from education



Geography, Size, and Sectors

The regional distribution is similar to that for all Non-Trainers.

Predominantly micro (76%) and small (21%) private sector employers. Average size of 12 employees, compared to 11 employees for all Non-Trainers.

The sector mix is quite similar to that for all Non-Trainer employers. Major sectors include: Retail; Hotels and Restaurants; and Manufacturing.

Policy Implications

- Employers in this cluster would benefit greatly from Train to Gain and/or other programmes of flexible training provision at their own premises. Common barriers to training are related to the high cost of external training, a lack of time for employees to attend training, and a lack of suitable courses locally.
- Employers in this cluster have a relatively high propensity to recruit young people direct from education. Many of these young people would appear to lack the skills needed for employment.

Appendix 1: Statistical Method

What is Cluster analysis?

Cluster analysis, also called segmentation analysis, seeks to identify homogeneous subgroups of establishments within the dataset of all establishments. The aim is to find subgroups which both minimize within-group variation and maximize between-group variation, measured using set of variables which measure the characteristics of establishments. In this instance, these variables measure the training activity of establishments.

What is Principal Components Analysis, and why is it used before the cluster analysis?

Principal Components Analysis (PCA) is a technique for summarising the key dimensions of variation in a data set. It works by taking a set of variables which describe the training activity of establishments and transforming them into a new set of variables which represent the unique sources of variation in the original variables. The original variables may be highly correlated with each other; the new variables are uncorrelated. They are interpreted by undertaking a correlation analysis between the original variables and the extracted components (the correlation coefficients obtained are termed 'component loadings').

The number of components yielded by the technique is the same as the number of original variables, but a principal components analysis usually results in a smaller number of components being retained for further analysis, since the first few components represent the most important sources of variance in the data. The last few components account for a small percentage of the original variance, representing 'random noise', and can be safely discarded.

Cluster analysis (like most parametric statistical techniques) assumes that the variables to which the technique is being applied have a 'normal' distribution. Principal components, in addition to being uncorrelated (or *orthogonal*) are normally distributed, with a mean of zero and a standard deviation of 1. It is therefore accepted practice to undertake cluster analysis on principal component scores, rather than the original variables.

The choice of cluster analysis method

The NESS 2005 data sets were supplied to the research team as SPSS data files and it was decided to undertake the cluster analysis using this statistical package. SPSS offers three cluster analysis methods:

1. *Hierarchical clustering*: Observations are successively grouped into larger clusters on the basis of the measure of distance between observations, and aggregation stopped when the optimal number of clusters is reached. However, this method requires calculation of

- the 'distance' between each case in the data set across all the variables used in the analysis, and therefore becomes impractical for large data sets.
2. *k-means clustering*: With the desired number of clusters (k) specified in advance, this method calculates how to assign cases to one of k clusters. It makes a first guess at the characteristics of the chosen number of clusters and then progressively refines the classification by moving observations between clusters until the optimal partition of the data is achieved. This method is much less computer-intensive than hierarchical clustering, and is therefore preferred for larger data sets.
 3. *two-step clustering*: This is designed to reveal natural groupings within a data set. It uses a scalable cluster analysis algorithm designed to handle very large data sets and permits the handling of both categorical and continuous variables. It will yield an optimal partition of the data set into a predetermined number of clusters, or will search for the optimal number of clusters.

Because of the size of the data sets being classified, and the desire to incorporate binary variables representing key characteristics of establishments into the analysis (for example, whether the establishments has a training plan), it was decided that two-step cluster analysis was the most appropriate technique.

Two-step cluster analysis is efficient because it requires the software to undertake only one pass through the data. The two steps are to (1) pre-cluster the cases (or records) into many small sub-clusters; (2) cluster the sub-clusters resulting from the pre-cluster step into the desired number of clusters.

In the pre-clustering step, observations are clustered by building a data structure called a modified Cluster Feature (CF) Tree, which contains the cluster centres. This is updated as each new observation is added to the tree. The cluster step takes sub-clusters resulting from the pre-cluster step as input and then groups them into the desired number of clusters based on a 'nearness' criterion. Since there are much fewer sub-clusters than original records, traditional hierarchical clustering methods can be used effectively to group sub-clusters; SPSS uses the agglomerative hierarchical clustering method. When one or more of the variables are categorical, log-likelihood is the distance measure used, with cases categorized under the cluster which is associated with the largest log-likelihood. If variables are all continuous, Euclidean distance is used, with cases categorized under the cluster which is associated with the smallest Euclidean distance.

The likelihood distance measure used by this technique assumes that variables in the cluster model are independent. Further, each continuous variable is assumed to have a normal (Gaussian) distribution, and each categorical variable is assumed to have a multinomial distribution. The use of principal component scores satisfied these conditions.

The analyses undertaken

Two cluster analyses were undertaken, for two sub-sets of establishments from the 2005 NESS survey:

1. The 7,059 establishments that had provided training in the 12 months before the survey **and** had responded to the add-on survey of training costs. This data set had the most comprehensive set of variables on training activity and training costs. The classification of establishments identified nine clusters.
2. The 19,969 establishments from the NESS survey that had not provided training in the 12 months before the survey. This analysis did not include training activity and cost measures. Establishments were divided into four clusters.

A number of indicators of local labour market conditions were matched on to the data sets.

For each analysis, separate Principal Components Analyses were undertaken for groups of 'continuous' variables. In each of these separate analyses, the original variables were reduced to a smaller number of principal components, which were then used in the Two-step cluster analysis. The variables input to each cluster analysis are detailed in the table below:

Principal Components analyses for the cluster analysis of 'trainers' and 'non-trainers'

Trainers	Non trainers
Local labour market (2 components)	Local labour market (2 components)
Skill shortages and workforce skills (5 components)	Skill shortages and workforce skills (5 components)
On- and off-the-job training (6 components)	
Training costs (6 components)	

We also included additional information in the classification derived from questions which describe the characteristics of enterprises, in addition to quantitative measures of training activity. Accordingly, both cluster analyses initially included a set of binary variables representing key characteristics of each establishment, related to recruitment and training. These were:

- establishment has a training plan (0=no, 1=yes)
- establishment has a training budget (0=no, 1=yes)
- establishment recruits from education (0=no, 1=yes)
- establishment has a business plan (0=no, 1=yes)
- establishment assesses training gaps (0=no, 1=yes)
- establishment assesses training (0=no, 1=yes)

Evaluation of the clusters obtained suggested that these variables had an excessive influence on the solutions obtained, and distorted the results which would be obtained if establishments were clustered using only the component scores derived from the continuous variables. The cluster analyses undertaken without the binary variables were judged to produce more satisfactory and useful groupings of establishments.

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