**EMPLOYERS SKILL SURVEY 2001 DATASETS**

## Explanatory Material

### Brief Overview

The survey involved telephone interviews with 27,031 employer respondents across England. The survey was establishment based, covered all sectors, and included those establishments with one or more employees. Interviewing took place between November 2000 and April 2001. A number of files are released:

- Establishment dataset (SPSS)
- Occupational dataset (SPSS)
- List of variables in both the establishment and occupational datasets (Excel)
- The questionnaire (Word), and this supporting documentation.

### Information about data collection methods

*Sample and sample design*

The sample was drawn from the Business Database. This comprises all the entries in the Yellow Pages across the UK (approximately 1.7 million establishments). The database gives complete coverage of all establishments with a business telephone line with the exception of those with whom BT is in sensitive commercial negotiations at the time (a few very large establishments, those in the in Kingston-upon-Hull who are served by a unique telephone exchange in the city (Kingston Communications) and very new start-up businesses.

The population from which the survey sample was drawn is all business establishments, or local units (rather than business enterprises) in England with one or more employees.
Sample design involved quota sampling with stratification by 9 Government Office regions, 16 industry sectors (defined by SIC 92) and 5 sizes of establishment defined by the number of employees at the location, using variable sampling fractions. Sampling targets were set on a 720 cell matrix by:

- distributing half the sample equally across the nine Government Office regions and the other half in proportion to the number of establishments in each region
- distributing interviews by industry sector within region in proportion to number of establishments
- distributing interviews by size within sector and region with probability proportional to employee size.

In order to allow reliable analysis by LSC area, targets were also set within region such that we attempted to obtain a minimum of 400 interviews with

employers in each LSC area. Table 1 below summarises the intended sample structure and the achieved sample.

**Table 1**
**Sample Structure**

| | Target | Achieved |
|---|---|---|
| Total | 27,000 | 27,031 |
| 1 – 4 | 3,534 | 3,701 |
| 5 – 24 | 8,346 | 8,766 |
| 25 – 99 | 8,618 | 9,457 |
| 100 – 499 | 5,529 | 4,404 |
| 500+ | 973 | 703 |
| Agriculture, hunting and forestry (01, 02, 05) | 389 | 329 |
| Food, textiles, paper, publishing (15-19, 21-22) | 1,409 | 1,246 |
| Metals and metal products (27-28) | 770 | 834 |
| Machinery and transport equipment, vehicles (29, 34-35) | 548 | 658 |
| Electrical and electronic equipment (30-33) | 451 | 398 |
| Chemicals, miscellaneous manufacturing, mining, utilities (10-14, 20, | 1,257 | 1,201 |
| Construction (45) | 2,706 | 2,364 |
| Wholesale, retail (50-52) | 2,708 | 3,361 |
| Hotels and catering (55) | 2,710 | 2,991 |
| Transport, storage and communication (60-64) | 2,157 | 1,872 |
| Finance (65-67) | 1,092 | 820 |
| Business services (70-74) | 4,314 | 4,140 |
| Public administration and government (75) | 646 | 545 |
| Education (80) | 987 | 1,437 |
| Health (85) | 2,149 | 2,461 |
| Community, social and personal services (90-93) | 2,707 | 2,374 |
| Eastern | 3,032 | 3,035 |
| East Midlands | 2,559 | 2,560 |
| London | 4,010 | 4,011 |
| North East | 1,973 | 1,999 |
| North West | 3,113 | 3,109 |
| South East | 3,905 | 3,908 |
| South West | 2,916 | 2,916 |
| West Midlands | 2,815 | 2,816 |
| Yorkshire and the Humber | 2,677 | 2,677 |

*Source: ESS 2001 (IER/IFF)*

*The respondent*

The principal respondent was the senior person responsible for human resources or personnel issues. Generally, in establishments with 100 or more employees this was the human resources/personnel director or manager. In establishments with less than 100 employees it was the owner, proprietor or general manager.

*Questionnaire design*

The questionnaire was designed by IFF Research Limited (IFF), in conjunction with the Department for Education and Skills (DfES) and the Institute for Employment Research (IER) and programmed into CATI (Computer Assisted Telephone Interviewing) format. The questionnaire broadly followed the telephone questionnaire used in ESS 1999. Refinements were made to a few questions and new topics such as e-commerce and job-related training were included for the first time.

As usual with computerised questionnaires, several routing, logic and data checks were included to minimise keying errors and implausible answers.

A copy of the questionnaire is included with this documentation.

*Piloting*

Prior to the main survey, the questionnaire was piloted using telephone interviews of business establishments across a range of industry sectors, sizes of establishment and Government Office regions. The aims of the pilot were to test the questionnaire for comprehension and the interview length. In total, 102 pilot interviews were conducted during October 2000. A debrief session with the interviewers who conducted the pilot was held to obtain their feedback on the questionnaire and interview process. Minor amendments were then made to the questionnaire before the main survey.

*Response rates*

During fieldwork, repeated attempts were made to contact each selected establishment - up to a maximum of 7 attempts for establishments with less than 500 employees, and up to 10 attempts for larger establishments.

Interviewers working on the survey received full face-to-face briefings. During these sessions, the purpose of the survey was explained to them, along with procedures for contacting respondents. Interviewers then completed several practice interviews to familiarise themselves with the questionnaire.
In total, 27,031 telephone interviews were conducted by IFF Research Ltd.

Table 3 gives a breakdown of response to the survey.

**Table 3**

| | Number |
|---|---|
| Sample issued | 74,185 |
| Sample not used | 7,123 |
| Sample out of quota | 3,129 |
| Screened out / ineligible | 1,741 |
| Incorrect telephone numbers / Company no longer exists | 3,660 |
| Not available during fieldwork | 7,852 |
| No reply after 7 or 10 calls | 7,135 |
| | |
| Achieved interviews | 27,031 |
| Refusals | 16,424 |
| Valid response rate | 53% |

*Source: ESS 2001 (IFF/IER)*

*Statistical reliability*

The businesses responding to the survey are only a sample of the total survey population, i.e. all business establishments with one or more employees in England. Therefore, results are subject to sampling tolerances as we cannot be certain that the figures obtained are exactly those we would have if everybody had been interviewed (the "true" values). We can, however, predict the variation between the sample results and the "true" values from knowledge of the size of the samples on which the results are based and the number of times that a particular answer is given. The confidence with which we can make this prediction is usually chosen to be 95 per cent - that is, the chances are 95 in 100 that the "true" value will fall within a specified range. The stratification and subsequent weighting produce a design effect that reduces the effective sample size of aggregate findings (against which statistical reliability should be tested) from 27,031 down to 14,227. The table below illustrates the predicted ranges for aggregate and various sub-group sample sizes and percentage results at the "95 per cent confidence interval":

| **Unweighted Base** (actual) | **10% or 90%** | **25% or 75%** | **50%** |
|---|---|---|---|
| | ± | ± | ± |
| 27,000 | 1 | 1 | 1 |
| 2,500 | 2 | 2 | 3 |
| 1,000 | 3 | 4 | 4 |
| 500 | 4 | 5 | 6 |

For example, with an actual sample size of 2,500 where 25 per cent give a particular answer, the chances are 95 in 100 that the "true" value (which would have been obtained if the whole population had been interviewed) will fall within the range of ±2 percentage points from the sample result. Thus, according to the 2001 survey results, 23 per cent of establishments in the Health & Social Care sector reported having a hard-to-fill vacancy. Applying this principle, we can be 95 per cent certain that in all firms the 'true' prevalence of vacancies is between 21 and 25 per cent.
When results are compared between separate groups or samples, different results may be observed. The difference may be "real", or it may occur by chance (because not everyone in the population has been interviewed). To test if the difference is a real one – i.e. if it is "statistically significant", we again have to know the size of the samples, the percentage giving a certain answer and the degree of confidence chosen. If we assume a "95 per cent confidence interval", the differences between the two sample results must be greater than the values given in the table below.

| | **Differences required for significance at or near these levels** | | |
|---|---|---|---|
| **Unweighted Base** (actual) | **10% or 90%** | **25% or 75%** | **50%** |
| | ± | ± | ± |
| 5,000 and 5,000 | 2 | 3 | 4 |
| 1,000 and 1,000 | 5 | 7 | 8 |
| 500 and 500 | 7 | 10 | 12 |

For example with sample/base sizes of 5,000, the difference between the two sample results must be greater than three percentage points to be statistically significant, if the findings being compared are around 25 per cent. The difference required for significance increases as sub-group size decreases. Therefore, based on two sub-samples of 500, the difference required for significance is ±10 percentage points.

The structure of the dataset

Two datasets are released:

The **establishment dataset** has 27,031 rows, each corresponding to one establishment interviewed in the survey. A list of variables is provided, but it is important to note that for each of the follow up questions to either vacancies or skill gaps (e.g. from questions id1 to e9a) there are separate variables for each of the 1 digit SOC 90 (Standard Occupational Classification 1990) occupation groups. Additionally, a total variable is included for variables id1 to id6s (e.g. id6 reports the number of hard to fill vacancies for any occupation at an establishment, whereas id6a reports the same for Managers and other Senior Officials, id6b for Professionals etc.).

The **occupational dataset** has 14,470 rows, each corresponding to an occupation in which vacancies were reported within an establishment (to a maximum of 6 occupations per establishment). The occupations within which there were vacancies were initially coded to 1 digit SOC within the establishment dataset, but later to 3 digit SOC. Because the establishment dataset could not contain this level of detail, this separate dataset was constructed. For example, if an establishment reported vacancies for general managers, lab technicians and caretakers, then that establishment has 3 rows in the occupational dataset, one for each occupation. Another example: an establishment reports vacancies for carpenters, electricians and upholsterers. These will all be coded to the same 1 digit SOC code on the establishment dataset, but the more refined occupational dataset enables separate analysis of these three occupations as they are coded separately at the 3 digit SOC level. (Note that 'skill gaps' are not coded in this way and so there is no more detail on this dataset for skill gaps)

The occupational dataset therefore enables two things:

- more detailed occupational analysis for vacancies, i.e. being able to conduct analysis by 3 digit SOC.

- better 'total' columns in the follow up questions on a hard-to-fill or skill shortage vacancy base. For example, in the follow up questions (d9- d14), the establishment dataset groups responses which fall within the same 1 digit SOC code. However, it is possible that within the same establishment and same 1 digit SOC code, different responses were given to questions about skills sought etc. for different jobs which fall within that 1 digit SOC code. Whilst this was unlikely to be a major factor within each occupation (and to maintain consistency with previous surveys), the analysis reported in the main report was conducted within the establishment dataset for each 1 digit SOC code, but within the occupational dataset for the 'all occupation' totals (see tables, 2.11a – 2.13b in the report);

<u>Technical Information</u>

Data from the survey were analysed in Merlin and computer tabulations analysing each question by a standard set of cross-breaks were produced.

The data was then transferred into SPSS. The complete set of data and files available are:

- Establishment dataset (SPSS)
- Occupational dataset (SPSS)
- List of variables in both the establishment and occupational datasets (Excel)
- The questionnaire (Word) and this supporting documentation.

Variables and values, coding and classification

A complete list of the variables available is included within the package.

Although full details of the job title where a vacancy existed was taken, initially this was just coded to 1 digit SOC 2000 for the establishment dataset, and later coded to 3 digit in the occupational dataset (see above). Missing values exist where a respondent was not asked or refused to answer a question.

The main business activity of the establishment was coded to Standard Industrial Classification (SIC92) (see 'sect22' for the most detailed level of industry code available). The variable corresponds to SIC 92 as follows:

| **Sector in variable sect21** | **SIC92 Codes** |
|---|---|
| Agriculture & fishing | 01, 02, 05 |
| Mining and quarrying | 10, 11, 12, 13, 14 |
| Food, beverages and tobacco | 15, 16 |
| Textiles, clothing and leather | 17, 18, 19 |
| Wood, paper and printing | 20, 21, 22 |
| Petroleum, chemicals, rubber and minerals | 23, 24, 25, 26 |
| Metal working and machinery manufacturing | 27, 28, 29, 30, 31, 32, 33 |
| Transport and equipment | 34, 35 |
| Other manufacturing | 36, 37 |
| Electricity and water supply | 40, 41 |
| Construction | 45 |
| Wholesale, retail | 50, 51, 52 |
| Hotels and restaurants | 55 |
| Transport and communication | 60, 61, 62, 63, 64 |
| Financial intermediation | 65, 66, 67, 70, 71 |
| Computer and related R & D | 72, 73 |
| Other business services | 74 |
| Public administration | 75 |
| Education | 80 |
| Health and social work | 85 |
| Other community and services | 90, 91, 92, 93 |

Weighting and grossing

The data were weighted by size, industry sector and region to the profile of establishments within England with one or more employees, based on information from the Annual Business Inquiry (supplied by the Office for National Statistics) with results from the Agricultural sector weighted to AES data plus data from the MAFF Agricultural census due to partial coverage of this sector in the AES.

Within the datasets there are a number of different weights. Following publication of the main Research Report (DfES (2001), ref SKT40) an error in the weights applied to the very smallest employers (with 1 to 4 employees) was identified and new weights were calculated. Therefore, any results derived from this dataset may differ slightly from those published in the Research Report.

The weights facilitate analysis on either an establishment or employee basis (by employee, we mean by the number of vacancies, hard-to-fill vacancies or skill shortage vacancies or by the number of employees who are deemed to have a skills gap). The report has tables which use both types of weight, for example, tables 2.12a (hard-to-fill vacancies); 2.13a (skill shortage vacancies), 2.16 (establishments, but filtered to include only those with skill shortage vacancies), 3.3 (establishments) and 3.4a (internal skill gaps).

*Establishment dataset*

wtunits2: To analyse the data on an establishment weight
wtvac: Weight for vacancy based analysis for all occupations combined
wtvacgp1: Weight for vacancy based analysis for Managers and Senior Officials *(and continues with wtvacgp2 to wtvacgp9 etc.)*
wthtf: Weight for hard-to-fill vacancy based analysis for all occupations *(continues as above with wthtfgp1 to wthtfgp9)*
wtsrv: Weight for skill shortage vacancy based analysis for all occupations *(continues with wtsrvgp1 to wtsrvgp9)*
wt_gap: Weight for acute (or narrow) skill gap based analysis within all occupations (*continues with wt_gap@1 to wt_gap@9)*

*Occupational dataset*

wt_estab: To use for analysis on establishment base
wt_vac: To use for any analysis on all vacancies base
wt_htf: To use for any analysis on all hard-to-fill vacancies base
wt_ssv: To use for any analysis on all skill shortage vacancies base

Data Sources

A complete list of the variables is provided with the documentation, as a copy of the questionnaire.

The following key variables (which, unless otherwise stated, exist in both the occupational and establishment dataset):

**anyss**:– use as filter or frequency count for establishments reporting a skill shortage vacancy.
**anyh2f**:- use as filter or frequency count for establishments reporting a hard-to-fill vacancy.
**size**:– size bands of establishment
**sect21** and **isect**:– sector groups of establishment

**id4**:- total number of vacancies
**id6**:- total number of hard-to-fill vacancies
**id6s**:- total number of skill shortage vacancies
More detail is given in the dataset on the sectoral breakdown than was reported in the survey report. The level of disaggregation in the report represents that which could be reported with reliability.

Confidentiality and anonymisation

The datasets have been thoroughly interrogated applying the aims of statistical disclosure control to find a balance between:

- Avoiding a breach of confidentiality;
- Making available the most useful data possible.

The needs of the individual have to be balanced against the needs of the survey, as we aren't able to eliminate entirely a risk of disclosure.

Action was taken in two areas:

- Detection – Interrogation of the data to identify potential disclosure problems
- Treatment – Changing the data to eliminate the problems

*Detection*

The following tests were applied to the ESS2001datasets:

*Threshold rule*: The main identifying variables were used to produce a cross tabulation of the number of cases in the population as a whole. This identifies problem cases whose rareness makes them easily identifiable. For ESS2001, a cross tabulation of size by sector by region was produced with variable bands merged so that no cell contained less than 3 establishments (weighted).

*Proportion Test*: For each cell described in the above cross tabulation, the number of respondents (unweighted) should not account for more than 50% of the population for that cell (weighted).

*Treatment*

To protect confidentiality within the ESS2001 datasets we have used the following treatments:

*Removal of direct identifiers*, such as exact number of employees. Details such as the name and address of the establishment were never included in the dataset delivered to DfES, having been removed at source.

*Collapsing categories* (also known as global recoding), was applied to the

number of employees and the detailed industry coding.

Other techniques used in statistical disclosure control had already been applied to the data before this exercise began:

*Sampling* – This is commonly cited as a tool to avoid disclosure.

*Top and Bottom coding* of continuous variables, in order to disguise extreme values. This involves coding either the lowest band as 'less than' a figure, or coding the highest band as 'greater than' a figure.

In addition, *releasing old data* - more than a year old, is also used as a way of avoiding disclosure.

Following the actions detailed above, the ESS2001 dataset is to be released with a reduced number of variables. The main identifying variables are the location, size and industry sector. In these areas, the following variables are to be included:

Region – No change to the 9 categories relating to the English regions.

Size – The exact number of employees per establishment has been recoded into six bands: 1-4, 5-24, 25-49, 50-99, 100-199 and 200+

Sector – The 2 digit SIC92 variable has been recoded into the 21 band categorisation on page 8.

One further issue arose over the inclusion of variables that gave the number, and proportion of skill gaps within each establishment. The inclusion of both measures would then have allowed the calculation of the exact number of employees at an establishment.

It was decided to include the variables that give the total number of skill gaps (sgapnall etc and agapball) as these (or derivatives of them) are used in calculations for some of the tables in the Research Report (e.g. tables 3.5a, 3.5b, 3.6a and 3.6b). [The proportion of employees with a skills gap in a particular group is calculated by summing the number of employees with a skills gap and then dividing by the total number of employees in that group. The proportion of staff with a skills gap within each individual establishment is not used in this calculation.]

Further derived variables which give the proportion of staff with skill gaps within each establishment were therefore removed to prevent calculation of the exact number of employees at an establishment.

A full list of variables to be excluded from the establishment and occupational datasets are given in Annexes 1 and 2.

## Contextual information

*Description of originating project*

This survey is the second in a series of surveys initially undertaken as part of

the comprehensive analysis of skill deficiencies commissioned by the Skills Task Force. The first report was published in 1999 (Bosworth *et al.*), the second in 2001 (Hogarth *et al.*) with a third in 2002 (Hillage *et al*.). The purpose was to investigate the extent, causes and implications of skill deficiencies in England.

The survey addresses a number of related research questions:

- To what extent do employers face difficulties recruiting employees and whether the lack of available skills contributed to these difficulties?
- Do employers perceive that they have internal skill gaps among their employed workforce?
- Do these deficiencies vary by size, sector and occupation?
- What do employers think are the main causes of any skill deficiencies they face, and what are the consequences?

## References

Cochran, W.G. 1977. Sampling Techniques

Willenborg and de Waal. Statistical Disclosure in Practice. Lecture Notes in Statistics 111

Felso et al. Disclosure limitation methods in use: a survey. August 2001

A Research Report from the survey - Employers Skill Survey 2001 (ref SKT40 published September 2001) and further analyses are available to download from the Skillsbase website at:

http://www.skillsbase.dfes.gov.uk/Reference/Reference.asp?sect=1&page=7

## Annex 1 - Variables excluded from the Establishment dataset

| | |
|---|---|
| iobs | Serial Number |
| s3 | Number of employees at establishment |
| ib2 | Total sales/budget in the last full financial year |
| ib2a | Total sales in the last full financial year |
| ib2b | Total budget in the last full financial year |
| id1a | QD1 Number of people employed: Managerial and senior official occupations |
| id1b | QD1 Number of people employed: Professional occupations |
| id1c | QD1 Number of people employed: Associate professional & technical occupations |
| id1d | QD1 Number of people employed: Administrative and secretarial occupations |
| id1e | QD1 Number of people employed: Skilled trades occupations |
| id1f | QD1 Number of people employed: Personal service occupations |
| id1g | QD1 Number of people employed: Sales and customer service occupations |
| id1h | QD1 Number of people employed: Process, plant and machine operatives |
| id1i | QD1 Number of people employed: Elementary occupations |
| e1a | Proportion with skill gaps: Managerial and senior official occupations |
| e1b | Proportion with skill gaps: Professional occupations |
| e1c | Proportion with skill gaps: Associate professional and technical occupations |
| e1d | Proportion with skill gaps: Administrative and secretarial occupations |
| e1e | Proportion with skill gaps: Skilled trades occupations |
| e1f | Proportion with skill gaps: Personal service occupations |
| e1g | Proportion with skill gaps: Sales and customer service occupations |
| e1h | Proportion with skill gaps: Process, plant and machine operatives |
| e1i | Proportion with skill gaps: Elementary occupations |

## Annex 2 - Variables excluded from the Occupational dataset

| | |
|---|---|
| serno | Serial Number |
| a4 | Total sales/budget in the last 12 months |
| e1a | Proportion with skill gaps: Managerial and senior official occupations |
| e1b | Proportion with skill gaps: Professional occupations |
| e1c | Proportion with skill gaps: Associate professional and technical occupations |
| e1d | Proportion with skill gaps: Administrative and secretarial occupations |
| e1e | Proportion with skill gaps: Skilled trades occupations |
| e1f | Proportion with skill gaps: Personal service occupations |
| e1g | Proportion with skill gaps: Sales and customer service occupations |
| e1h | Proportion with skill gaps: Process, plant and machine operatives |
| e1i | Proportion with skill gaps: Elementary occupations |

IFF RESEARCH LTD 26 WHISKIN STREET . LONDON . EC1R 0BP
TEL: +44 (0) 171 837 6363 FAX: +44 (0) 171 278 9823
EMAIL: IFF@IFFRESEARCH.COM

PRIVATE & CONFIDENTIAL **Employer Skills Survey 2000** **3357**
Screening Sheet October 2000

**Office Use only**:

| SERIAL | | | | CARD |
|---|---|---|---|---|
| | | | | |
| (101) | | | (104) | (105) |

| REF NO | | | | |
|---|---|---|---|---|
| | | | | |
| (106) | | | | (110) |

| REGION | Country | |
|---|---|---|
| | | |
| (111) | (112) | (113) |

Address Label or Written Details

**FINAL OUTCOME** (CODE ONE ONLY) **(**114-115**)**

| | |
|---|---|
| Respondent interviewed / recruited..... | 01 |
| Breakdown during interview ..... | 02 |
| Out of quota (size band)..... | 03 |
| Out of quota (sector)..... | 04 |
| Out of quota (region)..... | 05 |
| Non qualifier ( )..... | 06 |
| | |
| Refusal: (SPECIFY)..... | 10 |
| Not available in deadline ..... | 11 |
| Ref. to other address / telephone number | 12 |
| No contact with resp after 5 tries..... | 13 |
| Unobtainable / dead line / fax number.. | 14 |
| Company closed down..... | 15 |
| Respondent moved / no longer at address | 16 |
| Wrong number ..... | 17 |
| Other (DESCRIBE)..... | 00 |

**Contact Record - Please complete for every contact, however short**

| No | Date | Time | Spoke to | Outcome |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |

**Please use**:
NDC = No Direct Contact DC = Direct Contact NR = No Reply C/B = Call Back Eng = Engaged

| Interviewer: | |
|---|---|
| **Print Name** | |
| **Date:** | |

| Office Use Only | **Date** |
|---|---|
| **Coded by:** | |
| **Res / Field edit by:** | |
| **QC by:** | |

**ASK TELEPHONIST**

1) I have your company name and address as _____ (COMPANY) at ____(ADDRESS). Is that correct?
RECORD AMENDMENTS. BUT CARRY ON.

| |
|---|
| |

2) May I speak to the most senior person here who has responsibility for human resource and personnel issues?
INTERVIEWER PROMPTS
ESTABLISHMENTS WITH **25 OR MORE** EMPLOYEES: Your human resources or personnel director / manager
ESTABLISHMENTS WITH **1-24** EMPLOYEES: The owner, managing director or general manager

| |
|---|
| NAME: |
| JOB TITLE: |

**ASK RESPONDENT**

Good morning / afternoon, my name is _____ , calling from IFF Research, an independent market research company. We're conducting a survey on behalf of the Department for Education and Employment to investigate skills problems in the labour market and how these can be addressed. Results will feed into the National Skills Agenda and ensure that the skills needed to maintain a high level of employment and economic competitiveness are available in the labour market.

Participation in the study is entirely voluntary and responses will not be attributed to any individual or company. Results will be reported to the DfEE only in the form of aggregated statistics.

The interview will take around 20 minutes. Results to the survey will be posted on the DfEE website when the research has been completed (www.skillsbase.gov.uk/skillsforce).

I would like to ask you some general questions about the activities carried out here and then about human resource issues specifically. Can I confirm you are the best person at this location to talk to?

Reassurances:
* We work strictly within the Market Research Society Code of Conduct
* Contact at IFF: Faye Allard or David Vivian (020 7300 9299)
* Contact at DfEE: Carol Stanfield (0114 259 3502)
* We got your company name through BT's Business Database

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | |

IF NO : TRANSFER AND REINTRODUCE. **DO NOT CONTACT OTHER LOCATIONS**

| |
|---|
| NAME: |
| JOB TITLE: |

3) Firstly, how many people are employed at this establishment? Please include both full time and part time employees, **and yourself**.
WRITE IN NUMBER AND CODE RANGE

NUMBER : _____

| | | |
|---|---|---|
| 0 | 1 | CLOSE |
| 1 – 4 | 2 | ASK S3a |
| 5 – 9 | 3 | |
| 10 – 24 | 4 | ASK S5 IF IN QUOTA |
| 25 – 49 | 5 | |
| 50 – 99 | 6 | |
| 100 – 249 | 7 | |
| 250 – 499 | 8 | |
| 500 – 999 | 8 | |
| 1000+ | 10 | |

**IF FEWER THAN 9 EMPLOYEES AT Q3**

3a) When you say you have …[no. of employees from S3] … people working here, are you including any of the following categories: the self employed, working proprietors, directors who are not employees, home-workers, non-employee trainers, outside contractor/agency staff or any employees under 16.

( )

| | | |
|---|---|---|
| Yes | 1 | ASK S3b |
| No | 2 | ASK S5 |

3b) Excluding these people, how many people are employed at this establishment?
**WRITE IN NUMBER AND CODE RANGE**

NUMBER : _____

| | | |
|---|---|---|
| 0 | 1 | THANK & CLOSE |
| 1 – 4 | 2 | ASK S5 |
| 5 – 9 | 3 | |

4) THERE IS NO Q4

5) What is the main business activity at this location?
WRITE IN FULL DETAILS AND CODE SECTOR

| |
|---|
| |
| |

( )

| | | |
|---|---|---|
| **Agricultural industries** | | ASK S5a IF IN QUOTA |
| Agriculture, hunting, forestry and fishing | 0 | |
| **Manufacturing industries** | | |
| Metals and metal products | 1 | |
| Machinery and transport equipment, vehicles | 2 | |
| Electrical, electronic, optical, and medical machinery and instruments | 3 | |
| Food, textiles, paper, publishing | 4 | |
| Mining, wood products, fuel, chemicals, rubber, plastics, miscellaneous manufacturing, utilities | 5 | |
| Construction | 6 | |
| **Service industries** | | |
| Wholesale, retail | 7 | |
| Hotels, catering | 8 | |
| Transport, storage and communication | 9 | |
| Community, social and personal services | 10 | |
| Finance | 11 | |
| Business services | 12 | |
| Education | 13 | |
| Health | 14 | |
| Public administration, government | 15 | |

**IF QUOTA FILLED AT SCREENING**

5I) I'm very sorry but we have already completed the number of interviews we need with industries of your type.
However we will be resuming interviewing in January. Would it be OK if we called you back and continued the interview then?

IF YES: Thank you for your help – one of my colleagues will be in contact with you sometime in January **PUT INTO SPECIFIED QUEUE (QNEWYEAR)**

IF NO: Thank and close

5a) THERE IS NO Q5a

5b) Which would you describe as the main function carried out at this establishment?
DO NOT READ OUT. CODE ONE ONLY

| | | ( ) |
|---|---|---|
| Office, administrative services, finance or accounts | 1 | |
| Factory, production or construction | 2 | |
| Warehouse or distribution depot | 3 | |
| Design, research and development | 4 | |
| Catering, entertainment and leisure | 5 | |
| Shop, showroom or other customer or client facing sales activities | 6 | |
| Education, training or health care | 7 | |
| Call-centre or other volume-based telephone activities | 8 | |
| Don't know | X | |
| Other (SPECIFY) | 0 | |

6) Would you classify this establishment as ….? READ OUT, CODE ONE ONLY

| | | |
|---|---|---|
| A Private sector business | 1 | GO TO MAIN INTERVIEW |
| A Public sector organisation | 2 | |
| A voluntary sector organisation | 3 | |
| Don't know | X | |

IFF RESEARCH LTD 26 WHISKIN STREET · LONDON · EC1R 0BP
TEL: +44 (0) 171 837 6363 FAX: +44 (0) 171 278 9823
EMAIL: IFF@IFFRESEARCH.COM



| | |
|---|---|
| Start Time: | |
| Company Name: | |
| Respondent: | |
| Job Title: | |
| Interviewer: | |

## A BACKGROUND

I would like to begin by asking you some general questions about this establishment or site. By establishment or site I mean this single location, even if it encompasses more than one building.

**ASK ALL IN PRIVATE SECTOR** (OTHERS GO TO A2)

A1 Which of these best describes the formal status of this establishment?
READ OUT

| | ( ) | |
|---|---|---|
| A public limited company (plc) | 1 | |
| A private limited company (Ltd) | 2 | |
| A partnership | 3 | |
| A single proprietorship, i.e. owned by one person | 4 | |

**ASK ALL**

A2 Is this establishment …?
READ OUT

| | | |
|---|---|---|
| The only establishment in the organisation | 1 | GO TO SECTION B |
| One of a number of establishments within a larger organisation | 2 | GO TO ROUTING INSTRUCTION BEFORE A5 |

A3 THERE IS NO A3

A4 THERE IS NO A4

**ASK A5 IF ONE OF A NUMBER OF ESTABLISHMENTS IN THE ORGANISATION AT A2 AND PRIVATE SECTOR** (OTHERS GO TO A6)

A5 Which of these best describes the ownership or control of the organisation of which this establishment is part? READ OUT

| | | |
|---|---|---|
| UK owned or controlled | 1 | |
| Jointly UK and foreign owned or controlled | 2 | |
| Foreign owned or controlled | 3 | |

A6 Approximately how many people does the larger organisation of which this establishment is part employ in the UK? Please include both full time and part time employees. Would you say there are … ?

PROMPT IF NECESSARY. CODE RANGE

| | | |
|---|---|---|
| 24 or fewer | | |
| 25 – 99 | 1 | |
| 100 - 249 | 2 | |
| 250 – 499 | 3 | |
| 500 – 999 | 4 | |
| More than 1,000 | 5 | |
| DK | X | |

A7 Is the establishment where you work the overall head office of your organisation?

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | |

A7a THERE IS NO A7a

## B PRODUCT MARKET

I would now like to ask you a few questions about the activities in which this establishment is engaged. This is so that we can put your later answers on human resources and skills issues into context. If you cannot give a precise answer, please give me your best estimate.

B1 THERE IS NO B1

**ASK ALL**

B2 What was this establishment's total sales (PRIVATE SECTOR) / budget (NOT PRIVATE SECTOR) in the last full financial year? Please give me your best estimate.

WRITE IN £_____

**IF DON'T KNOW, PROMPT WITH RANGES BELOW**

| | | |
|---|---|---|
| Less than £100,000 | 1 | |
| £100,000 - £249,999 | 2 | |
| £250,000 - £499,999 | 3 | |
| £500,000 - £999,999 | 4 | |
| £1m - £1.9m | 5 | |
| £2m - £4.9m | 6 | |
| £5m - £49m | 7 | |
| More than £50m | 8 | |
| (READ OUT IF NECESSARY) In operation for less than a year | X | **GO TO B11** |

**ASK B3 IF PRIVATE SECTOR AND IN OPERATION 12 MONTHS OR MORE (NOT CODE X AT B2)** (OTHERS GO TO B4)

B3 Approximately what percentage of these sales were exported, if any?
PROMPT IF NECESSARY

| | | |
|---|---|---|
| All of them (100%) | 1 | |
| Over half | 2 | |
| Between 30 and 50% | 3 | |
| Between 20 and 29% | 4 | |
| Between 10 and 19% | 5 | |
| Less than 10% | 6 | |
| None | 7 | |
| Don't know | X | |

**ASK ALL IN OPERATION 12 MONTHS OR MORE (NOT CODE X AT B2)**

B4 Over the past twelve months, have / has this establishment's total sales (PRIVATE SECTOR) / budget (NON-PRIVATE SECTOR) ...?

READ OUT

| | | |
|---|---|---|
| Increased a great deal | 1 | |
| Increased a little | 2 | |
| Stayed the same | 3 | |
| Decreased a little | 4 | |
| Decreased a great deal | 5 | |

**ASK B5 IF SALES / BUDGET INCREASED / DECREASED AND IN OPERATION 12 MONTHS OR MORE (NOT CODE X AT B2)** (OTHERS GO TO B7)

B5 By approximately what percentage did this establishment's total sales (PRIVATE SECTOR) / budget (NON-PRIVATE SECTOR) increase / decrease over the past 12 months?

WRITE IN _____%

IF DON'T KNOW, PROMPT WITH RANGES BELOW

( )

| | | |
|---|---|---|
| Less than 5% | 1 | |
| 5 - 9% | 2 | |
| 10 - 19% | 3 | |
| 20 - 29% | 4 | |
| 30% or more | 5 | |

B6 THERE IS NO QB6

---

**ASK ALL IN OPERATION 12 MONTHS OR MORE (NOT CODE X AT B2)**

B7 Including both full time and part time employees, over the past twelve months, has employment at this establishment…?

READ OUT

( )

| | | |
|---|---|---|
| Increased | 1 | |
| Stayed the same | 2 | |
| Decreased | 3 | |

B7a How many people in total have been taken on at this location in the past 12 months? Please include any who have joined and since left.

WRITE IN NUMBER. IF DK PROMPT WITH RANGE.

NUMBER : _____

| | | |
|---|---|---|
| None | 1 | |
| 1 or 2 | 2 | |
| 3 or 4 | 3 | |
| 5 – 9 | 4 | |
| 10 – 14 | 5 | |
| 15 – 19 | 6 | |
| 20 – 29 | 7 | |
| 30 – 49 | 8 | |
| 50 – 99 | 9 | |
| 100 – 199 | 10 | |
| 200-499 | 11 | |
| 500 or more | 12 | |

B7b And how many people in total have left this location in the last 12 months?

WRITE IN NUMBER. IF DK PROMPT WITH RANGE

NUMBER : _____

| | | |
|---|---|---|
| None | 1 | |
| 1 or 2 | 2 | |
| 3 or 4 | 3 | |
| 5 – 9 | 4 | |
| 10 – 14 | 5 | |
| 15 – 19 | 6 | |
| 20 – 29 | 7 | |
| 30 – 49 | 8 | |
| 50 – 99 | 9 | |
| 100 – 199 | 10 | |
| 200-499 | 11 | |
| 500 or more | 12 | |

B8 THERE ARE NO QB8 – QB10

**ASK B10B IF INCREASE (CODE 1) OR DECREASE (CODE 3) AT B7 AND IN OPERATION 12 MONTHS OR MORE (NOT CODE X AT B2).** (OTHERS GO TO B11)

B10b What has been the main reason for this increase/decrease in the overall numbers employed at this establishment?
DO NOT READ OUT. CODE ONE ONLY

| **INCREASE IN EMPLOYMENT** | ( ) | **DECREASE IN EMPLOYMENT** | ( ) | |
|---|---|---|---|---|
| Increase in turnover / budget | 1 | Decrease in turnover / budget | 1 | |
| Increase in profit | 2 | Decrease in profit | 2 | |
| Move into new business areas | 3 | Withdrawal from business areas | 3 | |
| Company restructuring | 4 | Company restructuring | 4 | |
| Introduction of new working practices | 5 | Introduction of new working practices | 5 | |
| Introduction of new technology | 6 | Introduction of new technology | 6 | |
| Company take-over or merger | 7 | Company take-over or merger | 7 | |
| Other (WRITE IN) ..... | 0 | Other (WRITE IN) ..... | 0 | |
| No real change/reason | V | No real change/reason | V | |

**ASK B11-B12 IF PRIVATE SECTOR** (OTHERS GO TO B15)

B11 Is the market for this establishment's main product or service primarily …?
READ OUT. CODE ONE ONLY

| | ( ) | |
|---|---|---|
| Local | 1 | |
| Within your region | 2 | |
| Within the rest of the UK | 3 | |
| Within the European Union | 4 | |
| Within other parts of the world | 5 | |

**ROUTE OUT IF IN OPERATION LESS THAN 12 MONTHS**

B12 In the past 12 months, has this establishment's share of the (ANSWER FROM B11) market…?
READ OUT

| | ( ) | |
|---|---|---|
| Increased a great deal | 1 | |
| Increased a little | 2 | |
| Stayed the same | 3 | |
| Decreased a little | 4 | |
| Decreased a great deal | 5 | |

B13 THERE IS NO B13

B13a THERE IS NO B13a

B13b THERE IS NO B13b

B14 THERE IS NO B14

**NOW GO TO B15a**

**ASK B15 IF NOT-PRIVATE SECTOR** (OTHERS GO TO B15A)

B15 Is the geographical area that this establishment serves mainly …?
READ OUT. CODE ONE ONLY

| | ( ) | |
|---|---|---|
| Local | 1 | |
| Within your region | 2 | |
| Within the rest of the UK | 3 | |
| Within the European Union | 4 | |
| Within other parts of the world | 5 | |

**ASK ALL**

B15a Can you tell me where your main suppliers of goods and services are located? Are they ….? READ OUT. SINGLE CODE ONLY

| | ( ) | |
|---|---|---|
| Local | 1 | |
| Within your region | 2 | |
| Within the rest of the UK | 3 | |
| Within the European Union | 4 | |
| Within other parts of the world | 5 | |

B16 THERE IS NO QB16

B17 In relation to your current premises and equipment would you say that this establishment was…? READ OUT

| | ( ) | |
|---|---|---|
| At overload | 1 | |
| At full capacity | 2 | |
| Somewhat below full capacity | 3 | |
| Considerably below full capacity | 4 | |

B18 Over the next 12 months do you expect employment at this establishment to…
READ OUT

( )

| | | |
|---|---|---|
| Increase a great deal | 1 | |
| Increase a little | 2 | |
| Stay the same | 3 | |
| Decrease a little | 4 | |
| Decrease a great deal | 5 | |

**ASK B19 IF PRIVATE SECTOR** (OTHERS GO TO B20)

B19 Over the next 12 months do you expect sales at this establishment to…
READ OUT

( )

| | | |
|---|---|---|
| Increase a great deal | 1 | |
| Increase a little | 2 | |
| Stay the same | 3 | |
| Decrease a little | 4 | |
| Decrease a great deal | 5 | |

**NOW GO TO SECTION C**

---

**ASK B20 IF NOT PRIVATE SECTOR** (OTHERS GO TO SECTION C)

B20 Over the next 12 months do you expect the budget for this establishment to…
READ OUT

( )

| | | |
|---|---|---|
| Increase a great deal | 1 | |
| Increase a little | 2 | |
| Stay the same | 3 | |
| Decrease a little | 4 | |
| Decrease a great deal | 5 | |

# C PRODUCT STRATEGY AND SKILLS

C1 THERE ARE NO QUESTIONS C1-C8

**ASK ALL**

C9 I'm now like to ask you a number of questions about the products or services that are provided by this establishment. First of all on a scale of 1 to 5, where would you place this establishment and the products or services that it provides if…**READ FIRST STATEMENT BELOW**

A.) a score of one indicates that, compared to others in your industry, this establishment is a high volume producer or service provider and a score of five indicates that you provide one-off or very low volume services or products

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| High volume | 1 | 2 | 3 | 4 | 5 | DK | One-off |

B.) a score of one indicates that, compared to others in your industry, you provide a highly complex service or product and a score of five that you provide a simple product or service

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Highly complex | 1 | 2 | 3 | 4 | 5 | DK | Simple |

**ASK PRIVATE SECTOR ONLY**

D.) a score of one indicates that, compared to others in your industry, the competitive success of your establishment's products or services does not depend at all on price and a score of five that success is wholly dependent on price

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Not at all price-dependent | 1 | 2 | 3 | 4 | 5 | DK | Wholly price dependent |

**ASK NON-PRIVATE SECTOR ONLY**

E.) a score of one indicates that, compared to other non-commercial organisations, cost control is not a critical measure of performance and a score of five that cost control is a critical measure of performance

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Cost control not critical measure | 1 | 2 | 3 | 4 | 5 | DK | Cost control critical measure |

**THERE IS NO C9F-J**

**ASK PRIVATE SECTOR ONLY**

Ka) a score of one indicates that you compete in a premium quality product or service market and five that you compete in a market for a standard or basic quality product

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Premium | 1 | 2 | 3 | 4 | 5 | DK | Basic / Standard |

**ASK NON-PRIVATE SECTOR ONLY**

Kb) a score of one indicates that you provide a highly specialist service and a score of five that you provide a basic or standard service

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Highly specialist | 1 | 2 | 3 | 4 | 5 | DK | Basic / Standard |

L .) a score of one indicates that you provide a demonstrably better quality product or service than similar or competitor establishments and a score of five that you find it hard to match the product or service quality of similar or competitor establishments

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Better quality | 1 | 2 | 3 | 4 | 5 | DK | Find it hard |

M.) How applicable are each of the following statements to this establishment and the industry you work in?

| | Very applicable | Quite applicable | Not very applicable | Not at all applicable |
|---|---|---|---|---|
| Within our industry there have not been changes to the products and services offered or the way that they are delivered for a good number of years | 1 | 2 | 3 | 4 |
| Compared to other establishments within our industry we tend to lead the way in terms of developing new products, materials or techniques | 1 | 2 | 3 | 4 |

C10 THERE IS NO C10

C11 THERE IS NO C11

C11a And over the last year (IF IN OPERATION LESS THAN 12 MONTHS AT B2: Text substitute with "Since you have been in operation") have you implemented any formal plans to significantly improve the …?

| | Yes | No | DK |
|---|---|---|---|
| QUALITY of your existing products or services | 1 | 2 | X |
| EFFICIENCY with which you produce your existing products or services | 1 | 2 | X |

**ASK ALL**

**C11B** Changing the subject slightly now, I would like to ask you some questions about the use that your company makes of IT. First of all, compared to other establishments in your industry, how would you say your IT systems and/or networks compare? Please answer on a scale of one to five where a score of one indicates that your IT systems and/or networks are state of the art and a score of five that, compared to others in your industry, you are well behind recent technological developments.

( )

| | | |
|---|---|---|
| State of the art | 1 | |
| | 2 | |
| | 3 | |
| | 4 | |
| Well behind recent developments | 5 | |
| (DO NOT READ OUT) Not applicable, no use of IT | V | SKIP TO SECTION D |
| Don't know | X | |

C12: **IF SINGLE SITE ESTABLISHMENT AT QA2**: And does this establishment have its own Internet website?
**IF MULTI-SITE ORGANISATION AT QA2:** And does your organisation have its own website which is run from this location?

( )

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | |
| DK | X | |

C12a Does this establishment ever buy goods or services on-line?

( )

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | |
| DK | X | |

C12b THERE IS NO QC12b

**ASK ALL**

C13 Does this establishment sell any goods or services on-line?

( )

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | |
| DK | X | |

C13a THERE I NO QC13a

**ASK C14 IF ANY ON-LINE TRADING (YES @ C12 or C13), OTHERS GO TO SECTION D**

C14 How many of the… [NO. FROM SQ3] …people employed at this site are involved in buying or selling goods and services on-line?

WRITE IN NUMBER

IF DON'T KNOW, PROMPT WITH RANGES BELOW:

| | | |
|---|---|---|
| None | 0 | |
| 1 – 4 | 1 | |
| 5 – 9 | 2 | |
| 10 – 24 | 3 | |
| 25 – 49 | 4 | |
| 50 – 99 | 5 | |
| 100 – 249 | 6 | |
| 250 – 499 | 7 | |
| 500 – 999 | 8 | |
| 1000+ | 9 | |

**IF >1 @ C14, OTHERS GO TO SECTION D**

C14a And how many of those were recruited specifically because of their skills in e-commerce?

WRITE IN NUMBER

IF DON'T KNOW, PROMPT WITH RANGES BELOW:

| | | |
|---|---|---|
| None | 1 | |
| 1 – 4 | 2 | |
| 5 – 9 | 3 | |
| 10 – 24 | 4 | |
| 25 – 49 | 5 | |
| 50 – 99 | 6 | |
| 100 – 249 | 7 | |
| 250 – 499 | 8 | |
| 500 – 999 | 9 | |
| 1000+ | 10 | |

C14b And how many were recruited in-house from other jobs or roles and specifically trained in e-commerce skills?

WRITE IN NUMBER

IF DON'T KNOW, PROMPT WITH RANGES BELOW:

| | | |
|---|---|---|
| None | 1 | |
| 1 – 4 | 2 | |
| 5 – 9 | 3 | |
| 10 – 24 | 4 | |
| 25 – 49 | 5 | |
| 50 – 99 | 6 | |
| 100 – 249 | 7 | |
| 250 – 499 | 8 | |
| 500 – 999 | 9 | |
| 1000+ | 10 | |

C14c THERE IS NO C14c
C15 THERE IS NO C15
C16 THERE IS NO C16
C17a THERE IS NO C17a
C17b THERE IS NO C17b

# D RECRUITMENT PROBLEMS

**ASK ALL**

D1 I'd like to ask you to break down your workforce into nine specific categories. These categories are… [LIST CATEGORIES WITH EGs]

Would you like to record staff details as a percentage or as actual numbers of staff?

Approximately, what proportion of staff at this establishment are employed as/How many of your staff are employed as… ?
READ OUT

| | | |
|---|---|---|
| Managers and senior officials<br>e.g. directors, senior government officials, senior police officers | _____% | |
| Professional occupations<br>e.g. professional engineers, scientists, accountants, teachers, solicitors, architects, librarians | _____% | |
| Associate Professional and technical occupations<br>e.g. laboratory technicians, junior police officers, design and media professionals, nurses, artists | _____% | |
| Administrative and secretarial occupations<br>e.g. clerks, computer operators, secretaries, telephonists | _____% | |
| Skilled trades occupations<br>e.g. fitters, electricians, farmers, computer engineers, bricklayers | _____% | |
| Personal service occupations<br>e.g. catering staff, hairdressers, domestic staff, caretakers | _____% | |
| Sales and customer service occupations<br>Till operators, telesales staff, call centre staff, market traders | _____% | |
| Process, plant and machine operatives<br>e.g. machine operators, drivers, scaffolders, assembly line workers | _____% | |
| Elementary occupations<br>e.g. labourers, cleaners, security guards, postal workers, bar staff, shelf fillers, waiters | _____% | |
| | 100% | |

**FOR EACH OCCUPATION GROUP MENTIONED AT QD1**

D1a Thinking about your current workforce, what is the most common level of qualification amongst your ….(OCCUPATION AT QD1) ?
**PROMPT IF NECESSARY.** Would you say that they typically have ….?
**READ OUT. SINGLE CODE ONLY**

| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
|---|---|---|---|---|---|---|---|---|---|
| Higher level of qualification such as degree or equivalent (e.g. NVQ level 4/ Nursing/ HND/ HNC/ Higher diploma) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Intermediate level of qualification such as A levels or equivalent (e.g. NVQ level 3/ BTEC National/ /OND/ City and Guilds Advanced Craft) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Basic level of qualification such as G.C.S.Es or equivalent (NVQ level 2/ O levels/ BTEC first or general diploma/ Intermediate GNVQ/ City and Guilds Craft) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Lower level of qualification such as NVQ Level 1 or equivalent (BTEC first or general certificate/ basic vocational training/ RSA/ Foundation GNVQ) | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Other qualifications (SPECIFY) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| None | V | V | V | V | V | V | V | V | V |

D2 How many vacancies, if any, do you currently have at this establishment?

WRITE IN NUMBER _____

**IF NONE, GO TO D18**

---

**ASK ALL WITH ANY VACANCIES**

D3 In which specific occupations do you currently have vacancies at this establishment?
OBTAIN **FULL** DETAILS OF OCCUPATIONS AND WRITE IN BELOW

D4 How many vacancies do you have for _____(OCCUPATION)?

| | **OCCUPATION** | **NUMBER** |
|---|---|---|
| OCCUPATION 1 | | |
| OCCUPATION 2 | | |
| OCCUPATION 3 | | |
| OCCUPATION 4 | | |
| OCCUPATION 5 | | |
| OCCUPATION 6 | | |

**ASK D5 FOR EACH OCCUPATION AT D3**

D5 Are any of the vacancies you currently have for ____(OCCUPATION) proving hard-to-fill?

| | YES | NO |
|---|---|---|
| OCCUPATION 1 | 1 | 2 |
| OCCUPATION 2 | 1 | 2 |
| OCCUPATION 3 | 1 | 2 |
| OCCUPATION 4 | 1 | 2 |
| OCCUPATION 5 | 1 | 2 |
| OCCUPATION 6 | 1 | 2 |

**IF NO HARD-TO-FILL VACANCIES GO TO D18**

---

**ASK ALL WITH HARD-TO-FILL VACANCIES, SEPARATELY FOR EACH OCCUPATION WITH HARD-TO-FILL VACANCIES**

D6 How many hard-to-fill vacancies do you have for ____(READ OUT OCCUPATIONS WITH HARD-TO-FILL VACANCIES AT D5)

| | OCCUPATION WITH HTF VACANCIES (WRITE IN) | NUMBER |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |

D7 And broadly speaking how long has a hard-to-fill vacancy for ____(OCCUPATION WITH HARD-TO-FILL VACANCY) lasted – less than 2 weeks, 2 weeks to one month, 1-2 months, 2-3 months, 3-6 months, or more than 6 months?

| FROM D6 | LENGTH OF TIME | | | | | | |
|---|---|---|---|---|---|---|---|
| | LESS THAN 2 WEEKS | 2 WEEKS TO ONE MONTH | 1 – 2 MONTHS | 2-3 MONTHS | 3 – 6 MONTHS | MORE THAN 6 MONTHS | DON'T KNOW |
| OCCUPATION 1 FROM D6 | 1 | 2 | 3 | 4 | 5 | 6 | X |
| OCCUPATION 2 FROM D6 | 1 | 2 | 3 | 4 | 5 | 6 | X |
| OCCUPATION 3 FROM D6 | 1 | 2 | 3 | 4 | 5 | 6 | X |
| OCCUPATION 4 FROM D6 | 1 | 2 | 3 | 4 | 5 | 6 | X |
| OCCUPATION 5 FROM D6 | 1 | 2 | 3 | 4 | 5 | 6 | X |
| OCCUPATION 6 FROM D6 | 1 | 2 | 3 | 4 | 5 | 6 | X |

D8 THERE IS NO QD8

D9 Which particular skills or qualities have you found difficult to obtain from applicants for____(OCCUPATION WITH HARD-TO-FILL VACANCY)?
READ OUT. CODE ALL MENTIONED

| | Hard-to-fill occupation from D6 | | | | | |
|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** |
| Basic computer literacy skills | 1 | 1 | 1 | 1 | 1 | 1 |
| Advanced IT or software skills | 2 | 2 | 2 | 2 | 2 | 2 |
| Other technical and practical skills | 3 | 3 | 3 | 3 | 3 | 3 |
| Communication skills | 4 | 4 | 4 | 4 | 4 | 4 |
| Customer handling skills | 5 | 5 | 5 | 5 | 5 | 5 |
| Team working skills | 6 | 6 | 6 | 6 | 6 | 6 |
| Foreign language skills | 7 | 7 | 7 | 7 | 7 | 7 |
| Problem solving skills | 8 | 8 | 8 | 8 | 8 | 8 |
| Management skills | 9 | 9 | 9 | 9 | 9 | 9 |
| Numeracy skills | 10 | 10 | 10 | 10 | 10 | 10 |
| Literacy skills | 11 | 11 | 11 | 11 | 11 | 11 |
| Other (WRITE IN) | 0 | 0 | 0 | 0 | 0 | 0 |
| None | X | X | X | X | X | X |

**D10 THERE IS NO QD10**

**D11 THERE IS NO QD11**

D12 What are the main causes of having a hard to fill vacancy for ____(OCCUPATION WITH HARD-TO-FILL VACANCY)?
DO NOT READ OUT. CODE ALL MENTIONED

| | Hard-to-fill occupation from D6 | | | | | |
|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** |
| Too much competition from other employers | 1 | 1 | 1 | 1 | 1 | 1 |
| Not enough people interested in doing this type of job | 2 | 2 | 2 | 2 | 2 | 2 |
| Poor terms and conditions (e.g. pay) offered for post | 3 | 3 | 3 | 3 | 3 | 3 |
| Low number of applicants with the required skills | 4 | 4 | 4 | 4 | 4 | 4 |
| Low number of applicants with the required attitude, motivation or personality | 5 | 5 | 5 | 5 | 5 | 5 |
| Low number of applicants generally | 6 | 6 | 6 | 6 | 6 | 6 |
| Lack of work experience the company demands | 7 | 7 | 7 | 7 | 7 | 7 |
| Lack of qualifications the company demands | 8 | 8 | 8 | 8 | 8 | 8 |
| Poor career progression / lack of prospects | 9 | 9 | 9 | 9 | 9 | 9 |
| Other (WRITE IN) | 0 | 0 | 0 | 0 | 0 | 0 |

D13 Are hard-to-fill vacancies in _____(OCCUPATION WITH HARD-TO-FILL VACANCY) causing this establishment …?
READ OUT. CODE ALL MENTIONED

| | Hard-to-fill occupation from D6 | | | | | |
|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** |
| Loss of business or orders to competitors | 1 | 1 | 1 | 1 | 1 | 1 |
| Delays developing new products or services | 2 | 2 | 2 | 2 | 2 | 2 |
| To withdraw from offering certain products or services altogether | 3 | 3 | 3 | 3 | 3 | 3 |
| Difficulties meeting customer service objectives | 4 | 4 | 4 | 4 | 4 | 4 |
| Difficulties meeting required quality standards | 5 | 5 | 5 | 5 | 5 | 5 |
| Increased operating costs | 6 | 6 | 6 | 6 | 6 | 6 |
| Difficulties introducing technological change | 7 | 7 | 7 | 7 | 7 | 7 |
| Difficulties introducing new working practices | 8 | 8 | 8 | 8 | 8 | 8 |

D14 Are hard-to-fill vacancies in ____(OCCUPATION WITH HARD-TO-FILL VACANCIES) causing this establishment to …?
READ OUT

| | Hard-to-fill occupation from D6 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | | **2** | | **3** | | **4** | | **5** | | **6** | |
| | **Yes** | **No** | **Yes** | **No** | **Yes** | **No** | **Yes** | **No** | **Yes** | **No** | **Yes** | **No** |
| Increase salaries to make the job more attractive | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Increase the training given to your existing workforce in order to fill the vacancies | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Redefine existing jobs | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Use technology as a substitute for labour | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Increase advertising / recruitment spend | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Increase/expand trainee programmes | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Expand recruitment channels | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

D15 THERE IS NO D15

D16 THERE IS NO D16

D17 THERE IS NO D17

**ASK ALL**

D18 Over the last 2 –3 years, (IF IN OPERATION LESS THAN 12 MONTHS AT B2: Text substitute with "Since you have been in operation") have any graduates or individuals with NVQ Level 4 or equivalent been recruited to this establishment?

INTERVIEWER NOTE: NVQ level 4 equivalencies include Nursing, HND, HNC and Higher Diploma

( )

| | | |
|---|---|---|
| Yes | 1 | ASK D18A |
| No | 2 | GO TO SECTION E |
| DK | 3 | |

**IF YES AT D18**

D18A To what positions or occupations have graduates or individuals with NVQ level 4 or equivalent been recruited?

| | | |
|---|---|---|
| Managers and senior officials<br>e.g. directors, senior government officials, senior police officers | 1 | |
| Professional occupations<br>e.g. professional engineers, scientists, accountants, teachers, solicitors, architects, librarians | 2 | |
| Associate, professional and technical occupations<br>e.g. laboratory technicians, junior police officers, design and media professionals, nurses, artists | 3 | |
| Administrative and secretarial occupations<br>e.g. clerks, computer operators, secretaries, telephonists | 4 | |
| Skilled trades occupations<br>e.g. fitters, electricians, farmers, computer engineers, bricklayers | 5 | |
| Personal service occupations<br>e.g. catering staff, hairdressers, domestic staff, caretakers | 6 | |
| Sales and customer service occupations<br>Till operators, telesales staff, call centre staff, market traders | 7 | |
| Process, plant and machine operatives<br>e.g. machine operators, drivers, scaffolders, assembly line workers | 8 | |
| Elementary occupations<br>e.g. labourers, cleaners, security guards, postal workers, bar staff, shelf fillers, waiters | 9 | |
| Any Others? | 0 | |

**THERE IS NO D18b-D19**

# E SKILLS AND PROFICIENCY

I'd now like to turn to the skills within your **existing** workforce. Please do not think about any external recruitment problems that you may face.

**ASK E1 FOR EACH OCCUPATION**

E1 What proportion of your existing staff at this establishment in _____(OCCUPATION) would you regard as being fully proficient at their current job? Would you say…

all of them,
nearly all of them
over half
some but under half
very few
none of them ?

READ OUT. CODE ONE ONLY FOR EACH OCCUPATION

| | All | Nearly all | Over half | Some but under half | Very few | None |
|---|---|---|---|---|---|---|
| Managers and senior officials<br>e.g. directors, senior government officials, senior police officers | 1 | 2 | 3 | 4 | 5 | V |
| Professional occupations<br>e.g. professional engineers, scientists, accountants, teachers, solicitors, architects, librarians | 1 | 2 | 3 | 4 | 5 | V |
| Associate Professional and technical occupations<br>e.g. laboratory technicians, junior police officers, design and media professionals, nurses, artists | 1 | 2 | 3 | 4 | 5 | V |
| Administrative and secretarial occupations<br>e.g. clerks, computer operators, secretaries, telephonists | 1 | 2 | 3 | 4 | 5 | V |
| Skilled trades occupations<br>e.g. fitters, electricians, farmers, computer engineers, bricklayers | 1 | 2 | 3 | 4 | 5 | V |
| Personal service occupations<br>e.g. catering staff, hairdressers, domestic staff, caretakers | 1 | 2 | 3 | 4 | 5 | V |
| Sales and customer service occupations<br>Till operators, telesales staff, call centre staff, market traders | 1 | 2 | 3 | 4 | 5 | V |
| Process, plant and machine operatives<br>e.g. machine operators, drivers, scaffolders, assembly line workers | 1 | 2 | 3 | 4 | 5 | V |
| Elementary occupations<br>e.g. labourers, cleaners, security guards, postal workers, bar staff, shelf fillers, waiters | 1 | 2 | 3 | 4 | 5 | V |

E2 THERE IS NO QE2

**ASK E3A-E6 FOR A MAXIMUM OF 2 OCCUPATIONS CODED 3 - 5 AT E2** (IF NONE, GO TO E9)

E3 THERE IS NO E3

E3a What are the causes of some of your staff in _____(OCCUPATION) not being fully proficient in their jobs?
READ OUT. CODE ALL MENTIONED

| | Mgrs | Prof | Assoc prof & Tech | Admin & Sec | Skilled trade | Pers serv | Sales & Cus Serv | Proc, plant and mac ops | Elementary ocs |
|---|---|---|---|---|---|---|---|---|---|
| Failure to train and develop staff | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Recruitment problems | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| High staff turnover | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Inability of the workforce to keep up with change | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Other (WRITE IN) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

E4 What would you say were the particular skills or qualities that are missing among ____ (OCCUPATION)? **IF NECESSARY, ADD:** I am interested to know what skills are missing **and that this establishment needs** among employees in this occupation.
READ OUT. CODE ALL MENTIONED

| | Mgrs | Prof | Assoc prof & Tech | Admin & Sec | Skilled trade | Pers serv | Sales & Cus Serv | Proc, plant and mac ops | Elementary ocs |
|---|---|---|---|---|---|---|---|---|---|
| Basic computer literacy skills | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Advanced IT or software skills | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Other technical and practical skills | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Communication skills | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Customer handling skills | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Team working skills | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Foreign language skills | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Problem solving skills | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Management skills | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| Numeracy skills | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Literacy skills | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Other (WRITE IN) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| None | X | X | X | X | X | X | X | X | X |

E5 Is the fact that some of your _____(OCCUPATION) are not fully proficient causing this establishment….?
READ OUT. CODE ALL MENTIONED

| | Mgrs | Prof | Assoc prof & Tech | Admin & Sec | Skilled trade | Pers serv | Sales & Cus Serv | Proc, plant and mac ops | Elementary ocs |
|---|---|---|---|---|---|---|---|---|---|
| To lose business or orders to competitors | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Delays developing new products or services | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| To withdraw from offering certain products or services altogether | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Difficulties meeting customer service objectives | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Difficulties meeting required quality standards | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Increased operating costs | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Difficulties introducing technological change | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Difficulties introducing new working practices | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| No particular problems | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |

E6 What action is being taken at this establishment to overcome skills shortcomings with _____(OCCUPATION)?
READ OUT. CODE ALL MENTIONED

| | Mgrs | Prof | Assoc prof & Tech | Admin & Sec | Skilled trade | Pers serv | Sales & Cus Serv | Proc, plant and mac ops | Elementary ocs |
|---|---|---|---|---|---|---|---|---|---|
| Increased recruitment | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Providing further training | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Changing working practices | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Relocating work within the company | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Expand recruitment channels | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Increase/expand trainee programmes | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Other (WRITE IN) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No particular action being taken | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |

E7 THERE IS NO QE7

E8 THERE IS NO QE8

**ASK FOR ALL OCCUPATIONS**

E9 What barriers would you say may exist to your developing or maintaining a fully proficient team of … [OCCUPATION] … in the future? Would you say …? **READ OUT. CODE ALL THAT APPLY.**

| | Mgrs | Prof | Assoc prof & Tech | Admin & Sec | Skilled trade | Pers serv | Sales & Cus Serv | Proc, plant and mac ops | Elementary ocs |
|---|---|---|---|---|---|---|---|---|---|
| Lack of funding for training | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Lack of suitable courses relevent to this grade of staff | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Lack of suitable courses in area / locality | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Unwillingness of staff in this occupation to undertake training | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| High labour turnover | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Lack of time for training | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Lack of cover for training | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Other (SPECIFY) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DK | X | X | X | X | X | X | X | X | X |
| No barriers | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |

E9a Have skill needs in (OCCUPATION) changed for any of the following reasons?
**READ OUT. CODE ALL MENTIONED**

| | Mgrs | Prof | Assoc prof & Tech | Admin & Sec | Skilled trade | Pers serv | Sales & Cus Serv | Proc, plant and mac ops | Elementary ocs |
|---|---|---|---|---|---|---|---|---|---|
| New skills are needed in order to develop new products or services | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| New skills are needed to cope with new working practices | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| New skills are needed to cope with the introduction of new technology | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Other (WRITE IN) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No change | X | X | X | X | X | X | X | X | X |

E10 And thinking to the future in terms of the skills and abilities of your workforce, which skills do you expect to become more important over the next 2 to 3 years?
**DO NOT READ OUT. PROMPT IF NECESSARY. CODE ALL MENTIONED**

| | |
|---|---|
| Basic computer literacy skills | 1 |
| Advanced IT or software skills | 2 |
| Other technical and practical skills | 4 |
| Communication skills | 5 |
| Customer handling skills | 6 |
| Team working skills | 7 |
| Foreign language skills | 8 |
| Problem solving skills | 9 |
| Management skills | 10 |
| Numeracy skills | 11 |
| Literacy skills | 12 |
| Other (WRITE IN) | 0 |
| None | X |

# F TRAINING

I'd now like to ask you some questions about off-the-job training. By off-the-job training we are including all training away from the immediate work position. It can be given at your premises or elsewhere. It includes all sorts of courses – full or part-time; correspondence or distance learning; Health & Safety training and so on – as long as it is funded and arranged by you.

F1 Has this establishment funded or arranged any off-the-job training for any of your …[NUMBER FROM SQ3] … employees over the past 12 months (IF IN OPERATION LESS THAN 12 MONTHS AT B2: Text substitute with "Since you have been in operation")?

( )

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | |
| DK | 3 | |

**ASK ALL PROVIDING OFF-THE-JOB TRAINING, OTHERS GO TO F6**

F2 What proportion of your employees has this establishment funded or arranged training for over the past 12 months (IF IN OPERATION LESS THAN 12 MONTHS AT B2: Text substitute with "Since you have been in operation")?

WRITE IN _____ %

If DK prompt with RANGE.

| | | |
|---|---|---|
| < 10% | 1 | |
| 10 - 19% | 2 | |
| 20 – 29% | 3 | |
| 30 – 39% | 4 | |
| 40 – 49% | 5 | |
| 50 – 59% | 6 | |
| 60 – 69% | 7 | |
| 70 – 79% | 8 | |
| 80 – 89% | 9 | |
| 90 – 99% | 0 | |
| 100% | X | |

F3 Which of the following types of off-the-job training has this establishment funded or arranged for employees at this location over the past year? READ OUT AND CODE ALL MENTIONED

( )

| | | |
|---|---|---|
| Induction training | 1 | |
| Health & Safety or First Aid training | 2 | |
| Job specific training | 3 | |
| Supervisory training | 4 | |
| Management training | 5 | |
| Training in new technology | 6 | |
| Training in foreign languages | 7 | |
| Soft or generic skills training (such as team working, customer handling, time management or personal development) | 8 | |
| None of these | X | |

F4 Was any of the off-the-job training that this establishment funded or arranged over the last year (IF IN OPERATION LESS THAN 12 MONTHS AT B2: Text substitute with "Since you have been in operation") provided by a supplier from outside this establishment?

( )

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | |
| DK | 3 | |

F5 THERE IS NO F5

**ASK ALL**

F6 Which of the following exist at your establishment in formal written format?
READ OUT. CODE ALL MENTIONED

( )

| | | |
|---|---|---|
| A business plan | 1 | |
| A human resource plan that forecasts the number and types of staff that will be needed in the year ahead | 2 | |
| A training plan that specifies in advance the level and type of training your employees will need in the coming year | 3 | |
| A budget for training expenditure | 4 | |
| None of the above | 5 | |
| Don't Know | X | |

**ASK ALL WITH A BUDGET FOR TRAINING EXPENDITURE (CODE 4 AT F5). OTHERS GO TO F7**

F6a What is the value of your training budget?

WRITE IN £_____

IF DON'T KNOW, PROMPT WITH RANGE

( )

| | | |
|---|---|---|
| Under £1000 | 1 | |
| £1000 - £4999 | 2 | |
| £5000 - £9999 | 3 | |
| £10,000 - £19,000 | 4 | |
| £20,000 - £49,999 | 5 | |
| £50,000+ | 6 | |
| Don't know | X | |

F7 Is this establishment currently accredited as an Investor in People, is it currently implementing Investors in People, is it considering becoming an Investor in People, or none of these?

| | | |
|---|---|---|
| Currently accredited | 1 | |
| Implementing | 2 | |
| Considering | 3 | |
| None of the above | 4 | |
| DK | X | |

## G END OF INTERVIEW DETAILS

G1 THERE ARE NO QUESTIONS G1-G6

**ASK PRIVATE SECTOR ONLY**

G6a What is this establishment's **Company Number**?

WRITE IN _____

IF DK: you should be able to find it on your establishment's official headed paper

ANSWERS SHOULD TAKE THE FORM OF A SEVEN OR EIGHT DIGIT NUMBER.

G7 Finally, could I just check, if we were to be conducting similar research on these or other labour market issues for research purposes, would it be OK to contact you again?

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | |
| DK | X | |

G8 Respondent name

---

G9 Job title

---

THANK RESPONDENT AND CLOSE INTERVIEW

| | |
|---|---|
| I declare that this survey has been carried out under IFF instructions and within the rules of the MRS Code of Conduct. | |
| Interviewer signature: | Date: |
| Finish time: | Interview Length mins |

## ACKNOWLEDGEMENTS

The report for ESS2001 has been brought together through a team effort between IFF Research Ltd and the Warwick Institute for Employment Research. The team had many members, other than the authors, engaged in interviewing, data preparation, data checking, and word processing. In addition, members of the steering group have provided helpful advice at various stages. Finally, Carol Stanfield, project manager at DfES, has been of invaluable assistance in expediting the research and analysis. Our thanks go to everyone involved in the study.

Terence Hogarth
Jan Shury
David Vivian
Rob Wilson

June 2001.

## GLOSSARY

The first report of the National Skills Task Force – *Towards a National Skill Agenda* – drew attention to be the need to be clear about the distinction between external recruitment difficulties and skills gaps. Building on this terminology the present study has attempted to clarify the meaning of skill deficiencies. The terms used in the report are described below.

**Hard-to-fill vacancies** are those vacancies which the respondent classifies as hard-to-fill

**Skill-shortage vacancies** were defined as hard-to-fill vacancies which were skill related where at least one of the following causes were cited by the respondent: low number of applicants with the required skills, lack of work experience the company demands, or lack of qualifications the company demands.

**Recruitment problems** or **recruitment difficulties** refer to either hard-to-fill or skill-shortage vacancies.

**Skill gaps,** or **internal skill gaps**, reflect the extent to which employers perceive their employees' current skills as insufficient to meet current business objectives. Respondents were asked to comment on an occupation-by-occupation basis about the extent to which employees were 'fully proficient at their current job'. In order to gauge the extent of skill gaps survey respondents were asked:

> What proportion of your existing staff at this establishment in [a particular occupation] would you regard as being fully proficient at their current job: all, nearly all, over half, some but under half, very few, none?

A **skill gap (narrow definition)** is said to exist where less than nearly all staff were considered to be fully proficient.

A **skill gap (broad definition)** refers to skill gaps where less than all staff were not considered fully proficient.

**Latent skills gaps** can take two main forms. First, for a variety of reasons, employers may fail to report some problems. This may be because the respondent is unaware that they exist or they may choose not to report vacancies (for instance, if they feel that there is no hope of filling them). Second, and potentially much more important, respondents may simply not perceive that they have a problem, because they are not fully aware of skills that might be needed to optimise their company's performance.

**Skill deficiencies,** in the context of this report, refer to the sum of skill gaps and skill shortage vacancies.

**Establishment based measures** provide an estimate of the total number of establishments reporting a given skill deficiency

**Employee based measures** weight establishment measures by the total number of employees at the establishment and therefore provide estimates for the employee population as a whole.

**Technical skills** refer to specific skills needed to work within an occupation, and include advanced IT/software skills and other technical/practical skills.

**Generic skills** are transferable and can be used across occupations and refer to skills such as basic computer literacy, communication skills, customer handling skills, team working, problem solving, management skills, numeracy and literacy skills.

## EXECUTIVE SUMMARY

### Background

- In 1999, the Department for Education and Skills (formerly Department for Education and Employment) commissioned the Employers Skill Survey 1999 (ESS1999) as part of a major inquiry into skill deficiencies on behalf of the National Skills Task Force. Based on a survey of 27,000 employers ESS1999 was able to give a definitive account of the extent, causes and implications of skill deficiencies.

- The Employers Skill Survey 2001 (ESS2001) replicates ESS1999 in large part, but includes establishments with between 1 and 4 employees, and those in agriculture, both of which were excluded from ESS1999. As such ESS2001 provides a more comprehensive picture of the shortfall in skills across England.

### Skill Deficiencies

Two different kinds of skill deficiency are investigated in the survey:

- external *recruitment difficulties*, focusing in particular on hard-to-fill vacancies and what are referred to as ***skill-shortage vacancies***, (hard-to-fill vacancies explicitly attributed to a lack of job applicants with the required skills, qualifications or work experience)
- ***internal skill gaps*** (defined as occurring where a significant proportion of existing staff in a particular occupation are not fully proficient at their current jobs).

### Key findings:

### Recruitment Problems

- Approximately 14 per cent of establishments reported vacancies at the time of the survey, around 8 per cent of establishments reported hard-to-fill vacancies, and 4 per cent reported skill-shortage vacancies. These are significantly lower than the corresponding figures for ESS1999. However a substantial proportion of the difference, is attributable to the inclusion of establishments with 1-4 employees in this survey.

- If the sample is restricted to those with five or more employees (the sample comparable to ESS1999) and excluding agriculture, the percentage of establishments reporting vacancies increases to 27 per cent, while the proportion with hard-to-fill vacancies increases to 14 per cent, and those with skill-shortage vacancies increases to 6 per cent. These are below the levels reported for ESS1999, but the differences are fairly small.

- The proportion of establishments reporting vacancies, hard-to-fill vacancies, or skill-shortage vacancies rises quite sharply with the number of people employed. For instance, 3 per cent of establishments with 1-4 employees reported skill-shortage vacancies compared to 15 per cent with 500-999 employees. Yet because the smallest establishments are so numerous this is where many of the vacancies (29 per cent of all vacancies), hard-to-fill vacancies (34 per cent), and skill shortage vacancies (40 per cent) occur. Moreover, skill shortage vacancies represent 3 per cent of employment in establishments with 1-4 employees, but just 0.8 per cent overall.

- Skill-shortage vacancies were predominantly located in professional, associate professional and technical and skilled trade occupations. Though skill-shortage vacancies were found across all sectors they were concentrated in construction and business services. The data also demonstrate that a greater number of skill-shortage vacancies were found in the London and South East regions, both of which have experienced strong employment growth over recent years, but there were greater concentrations (measuring skill shortage vacancies as a proportion of all vacancies and as a proportion of employment) in the South West and Eastern regions.
- Advanced IT/software skills, other technical and practical skills, and customer handling skills were those most commonly reported by establishments as accounting for the difficulty of filling a skill-shortage vacancy. Team working, company/job specific skills, and communication skills were also cited by a substantial minority of respondents.

### Skill Gaps

- Approximately 7 per cent of all establishments reported internal skill gaps, using the narrow definition. That is, 7 per cent of establishments in England reported that a substantial proportion of their staff, in one or more occupational areas, were less than fully proficient in their jobs.

- Using the employee based measure it is possible to derive two measures of skill gaps. A broad definition that includes all establishments that reported that at least some of their staff lacked full proficiency. Using this measure it has been estimated that there were 1.8 million skill gaps in 2001.
- A second measure includes only those establishments where a significant proportion of the workforce was reported as lacking proficiency. Using this narrow definition there were 802 thousand skill gaps in 2000/01.

- ESS1999 - using the narrow definition of skill gaps - revealed that there were 860 thousand skill gaps; based on consistent coverage of establishments, ESS2001 reveals that there were 748 thousand (or 677,000) skill gaps in 2001.

- The types of skills sought by employers for internal skill gaps tended to lean more towards generic skills than is the case for skill shortage vacancies. Communication skills were required for 41% of all internal skill gaps, and team working, customer handling and technical/practical skills cited for around a third each of all internal skills gaps.

- Looking to the future employers reported that the skills they were most likely to require in the next 2-3 years were advanced IT/software skills (33 per cent of all establishments), followed by basic computing (21 per cent), and other technical/practical skills (18 per cent). Generally, where establishments reported skill gaps in their existing workforce they tended to report a greater future demand for all of the designated skills.

### Business performance

- The evidence points to skill-shortage vacancies and skill gaps having an impact on business performance.

- Skill-shortage vacancies resulted in 'difficulties meeting customer service standards' (affecting about 51 per cent of skill-shortage vacancies), 'delays in developing new products or services' (49 per cent) and 'increased operating costs' (39 per cent).

- 'Loss of business' or 'delays developing new products or services' may be considered to be severe impacts on business performance. These were mentioned in 34 per cent and 50 per cent of establishments respectively. From this one may conclude that skill deficiencies have serious consequences for establishments with skill shortage vacancies.
- The main effects of internal skill gaps on business performance were reported as difficulties introducing new working practices (32 per cent of establishments reporting internal skill gaps), increased operating costs (32 per cent) and difficulties with customer service (31per cent of establishments). Almost a quarter of establishments with skill gaps also reported the more serious impacts of either a loss of orders (23 per cent) or delays developing new products (24 per cent).
- Overall, the evidence points to skill-shortage vacancies and skill gaps being reported more by establishments that had set more challenging product market strategies. This implies that such establishments demand a high level of skills in their workforce but perhaps also that they are more aware of skill deficiencies in their workforce.

### Training

- Training was commonly cited as a response to skill deficiencies by employers (e.g. a response to 72% of internal skill gaps) and also as a cause of internal skill gaps in particular (failure to train and develop staff was cited for a third of all internal skill gaps). However, when asked about barriers faced in maintaining fully proficient staff, the most frequently cited barriers were a lack of time for training (31per cent of establishments) a lack of cover and a lack of funding for training (both 23 per cent). It is apparent that training is a factor in the cause and solution of skill deficiencies.
- Though a substantial proportion of establishments had a business plan (45 per cent), a training plan that specified the types of training employees needed over the coming year (24 per cent), relatively few had a training budget (17 per cent) or a human resource plan related to forecasting future skill needs (15 per cent).
- Related to those formal arrangements is Investors in People (IiP) accreditation which recognises the processes that are in place within an establishment to meet skills and training needs. In fact, only a small proportion of establishments meet IiP status (9 per cent), or were implementing it (2 per cent), or were considering it (7 per cent). Accreditation is very much linked to employment size: 45 per cent of establishments with 1000 or more employees had IiP accreditation compared to 5 per cent with 1-4 employees and 17 per cent with 5-24 employees.
- Approximately 35 per cent of establishments funded or arranged off-the-job training. On average, establishments provided around one fifth of their staff with off-the-job training over the past 12 months.
- Overall, where establishments reported a skill deficiency they were more likely to engage in training and train a greater proportion of their staff, compared to establishments that reported no skill deficiencies: 39 per cent of establishments with skill-shortage vacancies reported that they had not trained any staff over the last 12 months, compared to 64 per cent that had no such vacancies.

- Whether off-the-job training was provided was related to the number of employees engaged at the establishment. Whereas 26 per cent of establishments with 1-4 employees provided off-the-job training, the equivalent figure for those employing 1000 employees was 96 per cent.

- The two most common types of off-the-job training provided by establishments were 'job specific' (75 per cent of establishments providing off-the-job training) and health and safety (60 per cent).

- Overall, the data reveal that expenditure on off-the-job training is quite modest. By looking at the training expenditure as a proportion of sales (or budget in the public sector) an idea of the importance of training expenditure to an organisation can be gained. For many organisations training expenditure was close to zero with a mean expenditure of 2 per cent of sales turnover.

**Comparisons to the 1999 survey**

- Headline findings from this years survey can be compared to the survey conducted in 1999 by excluding establishments with fewer than 5 employees and the agriculture sector from the analysis.

- The reporting of skill shortage vacancies and internal skill gaps have both decreased in this years survey. Vacancies were reported by 27% of establishments, though, as last year, around a half of those reported hard-to-fill vacancies and around a half again were skill related. The reporting of internal skill gaps has also declined, from around 860 thousand to 677,000.
- Both these measures suggest skills deficiencies are not as severe in this survey, though they still affect a substantial proportion of employers. Whilst the overall hierarchy of responses to questions has not changed substantially, for example the most significant problems remain in the same occupational areas and require the same skills to meet deficiencies, there are areas where problems have increased – skill shortage vacancies amongst professional and elementary occupations; amongst the business services and health and social work sectors; and growing skill deficiencies in the South East, South West, West Midlands and Eastern regions.

## Latent Skill gaps

ESS2001 provides evidence of the extent of skill deficiencies in the economy. Where these exist they are seen to have serious implications for business performance. In conclusion there are two issues to further consider latent skill gaps.

Latent skill gaps refer to a situation where establishments fall short of what might be considered good or best business practice and is reflected in relatively low skill levels and relatively poor business performance, even though there is no report of recruitment problems or skill gaps. There are some indications from ESS 2001 that such latent skill gaps may exist, for example in the findings that establishments with skill deficiencies are more likely to have formal written business plans and are more likely to have plans to improve either the quality of their product/service and/or the efficiency of the production process. Such factors suggest a correlation with more dynamic business strategies and the identification of skill deficiencies, which suggests that if other establishments were to adopt similar practices, they might to identify hitherto unrecognised skill gaps.

# 1. INTRODUCTION

## 1.1 Background

This report provides findings from the Employers' Skill Survey 2001 (ESS2001). The survey was undertaken to identify the incidence, causes, and implications of skill deficiencies reported by employers in England. The Department for Education and Skills (DfES, formerly the Department for Education and Employment) has undertaken regular surveys of *Skills Needs in Britain* since the early 1990s. Though these surveys have provided useful information, in 1999 a much larger scale survey – the Employers Skill Survey 1999 (ESS1999) - was undertaken as part of the comprehensive analysis of skill deficiencies commissioned by the Skills Task Force (STF)[1]. The general aims and objectives of the wider investigation undertaken on behalf of the STF were:

- to focus on skill deficiencies, including recruitment difficulties reported by employers as well as "skill gaps" (that is problems with the skills of the existing workforce);
- to measure the extent and nature of current skill problems;
- to explore the causes of these problems;
- to assess implications of these difficulties for economic performance.

ESS2001 is a follow-up to ESS1999, although modifications were made to the questionnaire design (questions were included on e-commerce and training, though the bulk of the questionnaire remained unchanged) and, significantly, a different sampling frame was adopted. Whereas ESS1999 surveyed establishments employing five or more employees and excluded the agriculture sector, ESS2001 surveyed establishments across all sectors and included establishments with one or more employee. The broader sampling frame adopted in ESS 2001 provides a detailed descriptive analysis of recruitment difficulties, focussing on skill related, hard-to-fill vacancies, and skill gaps across a wider range of employers than was possible in ESS1999.

The shift in the sample has had a significant impact on the survey results, due to the number of establishments in this size band (see 1.7 below) and render direct comparisons with last year misleading at best. However, a comparison with the previous survey is possible if the agricultural sample and establishments with 1-4 employees are removed. This analysis is provided in chapter 6 of this report.

## 1.2 The study

The study addresses a number of key questions.

a) What are the skill needs of employers?
b) How many employers face recruitment difficulties and to what extent does a lack of available skills contribute to these?
c) How do these problems vary by occupation, establishment size, industrial sector, and

[1] The ESS1999 survey was undertaken by IFF Research in conjunction with the Institute for Employment Research at the University of Warwick. The larger inquiry of which this was a part was directed by Terence Hogarth and Rob Wilson at IER. Key publications include: see D. Bosworth, R. Davies, T. Hogarth, R. Wilson, and J. Shury. (2000) *Employer Skill Survey: Statistical Report*, DfEE/Skills Task Force, SKT 31; T.Hogarth and R. Wilson: *Employer Skill Survey: Synthesis Report*, DfEE forthcoming; A. Green and D. Owen (2001) *Employer Skill Survey: Spatial Report*, DfEE forthcoming; D. Bosworth, R. Wilson and R. Davies (2000) *Employer Skill Survey: Econometric Report*, DfEE forthcoming

region?

d) What evidence is there about the existence of internal *skill gaps* within the employed workforce?

e) What are the perceptions of employers about the causes and consequences of such (internal and external) skill deficiencies?

### 1.3 Survey parameters

The employer survey consisted of a total of 27,031 telephone interviews. This compares with the 23,070 telephone interviews and 3,882 face-to-face interviews in ESS1999, and the 4,000 telephone interviews conducted for the last wave of the Skill Needs in Britain (SNIB) survey in June 1998. The survey was establishment based. The principal respondent was the senior person responsible for human resource or personnel issues. Generally, in establishments with 100 or more employees this was the human resource/personnel director or manager. In establishments with fewer than 100 employees it was the owner, proprietor, or general manager.

Interviewing was restricted to England. All business sectors (public and private) were covered. Establishments with a minimum of one person employed were included in the survey.

## 1.4 Response rates, sample design and approach

103 pilot interviews were conducted during October 2000. This was to ensure that the questionnaire and general approach met the objectives of the study, to test out the new sections on training and e-commerce and the small number of questions elsewhere where the approach had been slightly modified, to ensure that the length of the interview did not place an excessively onerous burden on employers. The main stage of interviewing was carried out between November 2000 and April 2001. The overall response rate from employers was 53 *per cent* .

The sample was drawn from BT's Business Database, a regularly up-dated list of all establishments with a business telephone line.

The drawn sample was stratified by Regional Development Agency areas (referred to as 'regions' throughout the report), by industry sector (defined against 1992 SIC codes) and by establishment size (in terms of number of employees), using variable sampling fractions. This was done by:

- distributing half the sample equally across the regions; and
- distributing the remainder of the sample on a 'probability proportional to size' basis.

Results were grossed up at the analysis stage (on a region by establishment size by industry sector matrix), to population estimates derived from the 1998 Annual Employers Survey[2]. The results presented are therefore representative of the 2,058,713 establishments with employees in England. Results are reported showing the survey totals (*unweighted base*) and the grossed up totals (*weighted base*).

r esults from the Agriculture sample were weighted to AES data plus data from MAFF Agricultural Census due to partial coverage of this sector in the AES.

## 1.5 Definitional issues

ESS2001 uses the same definitions of skill deficiencies employed in ESS1999.[3] A clear distinction is made between two different kinds of skill deficiency:

i. ***recruitment difficulties*** in the external labour market, focusing on reported *hard-to-fill vacancies* which are skill related.[4] The latter are referred to as ***skill-shortage vacancies***.

ii. internal ***skill gaps***, that is, a divergence between firms' current skill levels and those which are required to meet firms' business objectives. These are measured by questions about the lack of proficiency of current staff.

The survey shows that some internal skill gaps are identified and recognised as such by employers. It is possible that some skill gaps may not be reported or may be 'latent' in nature, taking the form of unrecognised deficiencies in the skills required to compete effectively in rapidly changing world markets, but this is dealt with only indirectly in the present document. Together these various problems are referred to as ***skill deficiencies.***

## 1.6 Presentation of data

The data are presented either with a weighted or unweighted base as described above. On some occasions the base for tables is the number of establishments, on others it is the number of vacancies reported or internal skill gaps derived – this is clearly labelled in the tables.

Where the unweighted base in a table is below 25, percentage findings have not been reported. Where the unweighted base is above 25 but below 50 the percentages should be treated with caution. These figures are in italics in the tables.

Where a percentage is less than 0.5 per cent this is represented by '*'.

## 1.7 Establishment size and the distribution of employment

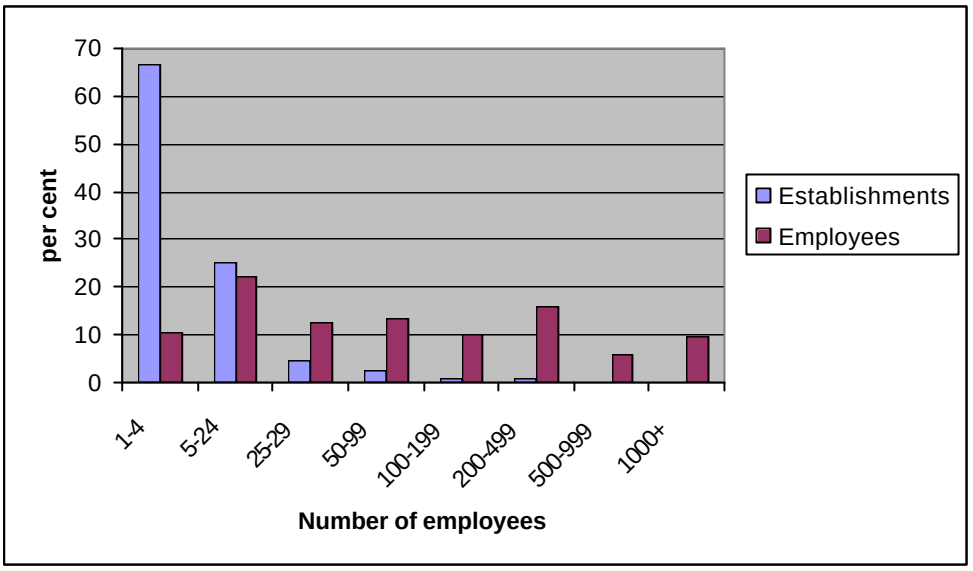
ESS2001 contains data relating to all establishments with one or more employees. Though there are a large number of establishments with fewer than five employees they employ only a modest proportion of all those in employment, whereas there are few large establishments but they employ a more substantial proportion of those in employment *(see Figure 1.1*). For instance, establishments with 500 or more employees account for approximately 0.2 per cent of all establishments but just under 16 per cent of all employment. Conversely, establishments with 1-4 employees account for 66 per cent of all establishments but only 10 per cent of all employment.

---

3 The analysis of 'skill-shortages' has been hampered frequently by inconsistencies in definition and measurement. ESS1999 built upon the definitions used in the first STF report.

4 Vacancies can arise due to an excess of demand over supply of the required skills or may be attributable to company-specific factors such as limited efforts at job advertising or the relatively unattractive salaries or job conditions on offer. The former were referred to as skill-shortages in the first report from the STF.

**FIGURE 1.1**
**DISTRIBUTION OF EMPLOYMENT AND ESTABLISHMENTS BY ESTABLISHMENT SIZE**




Source: AES & Agricultural Census

## 1.8 The report

Chapter 2 looks at recruitment difficulties and skill shortage vacancies reported by employers in ESS2001, whilst chapter 3 considers the nature, extent, causes of and solutions to internal skill gaps. Chapter 4 considers the impact of both types of skill deficiency on employers, with particular regard to economic performance. Chapter 5 considers questions on training, included in the survey this year, and interaction with skill deficiencies. Chapter 6 provides a comparison of some of the key findings with ESS1999 by excluding agriculture and establishments employing 1-4 employees.

Appendix A provides further technical detail on the survey.

# 2. RECRUITMENT PROBLEMS

## 2.1 Introduction

This chapter examines the scale and nature of recruitment problems reported by establishments. As in ESS1999, respondents were asked to identify occupations in which they currently had vacancies and then asked to identify those that were proving hard-to-fill. A **recruitment problem** is defined as one where the respondent identifies a vacancy as hard-to-fill. Hard-to-fill vacancies which are skill related are referred to as **skill-shortage vacancies**. The analysis proceeds by examining the incidence, number, distribution and density of all vacancies, hard-to-fill, and skill-shortage vacancies[1].

## 2.2 Incidence and number of vacancies

Approximately 14 per cent of establishments reported vacancies at the time of the survey, (*see Table 2.1).* Around 8 per cent of establishments reported hard-to-fill vacancies but, as will be reported below, this varied by size of establishment, sector, and region. These are significantly lower than the corresponding figures for ESS1999 (32 per cent and 16 per cent respectively)[2]. The difference, however, is almost entirely attributable to the extension of the sampling frame to include smaller establishments and the agriculture section. If the ESS2001 sample is restricted to those with five or more employees and excludes the agriculture sector, the percentage of establishments reporting vacancies increases to 27 per cent, while the proportion with hard-to-fill vacancies increases to 14 per cent. These are more in line with the results reported for ESS1999. Further comparisons on this basis are presented in chapter 6, but for the remainder of the report, the difference between the two samples needs to be borne in mind if drawing comparisons.

The most commonly cited reason for there being a hard-to-fill vacancy was 'a low number of applicants with the required skills' (35 per cent of establishments). 'Not enough people interested' and 'low number of applicants generally' were also commonly cited as reasons for a recruitment problem – mentioned by 21 and 26 per cent of establishments respectively *(see Figure 2.1)*. Wage levels ('company does not pay enough') are often seen as a primary determinant of there being a recruitment problem and this was mentioned by 15 per cent of establishments with hard-to-fill vacancies.

These responses can be used to refine the definition of those hard-to-fill vacancies which are related to skill problems. Those vacancies where at least one of the following causes was cited by the respondent have been defined as ***skill-shortage vacancies***[3]. The relevant causes are:

- low number of applicants with the required skills;
- lack of work experience the company demands;
- lack of qualifications the company demands.

Around 4 per cent of establishments reported skills shortage vacancies. This increases to 6 per cent if establishments with 1-4 employees and agriculture are excluded, more comparable with the 8 per cent of establishments who reported such vacancies in the

1 Density is defined as vacancies expressed as a proportion of either total employment or of employment in a specific occupation.

2 D. Bosworth, R. Davies, T. Hogarth, R.A. Wilson and J. Shury *Employers Skill Survey: Statistical Report*, Department for Education and Employment Research Report, SKT35, Sheffield, 2000.

3 Note that this is a specific definition of 'skill-related' which excludes factors relating to applicants' personal attributes and to general competition among employers for the best applicants.

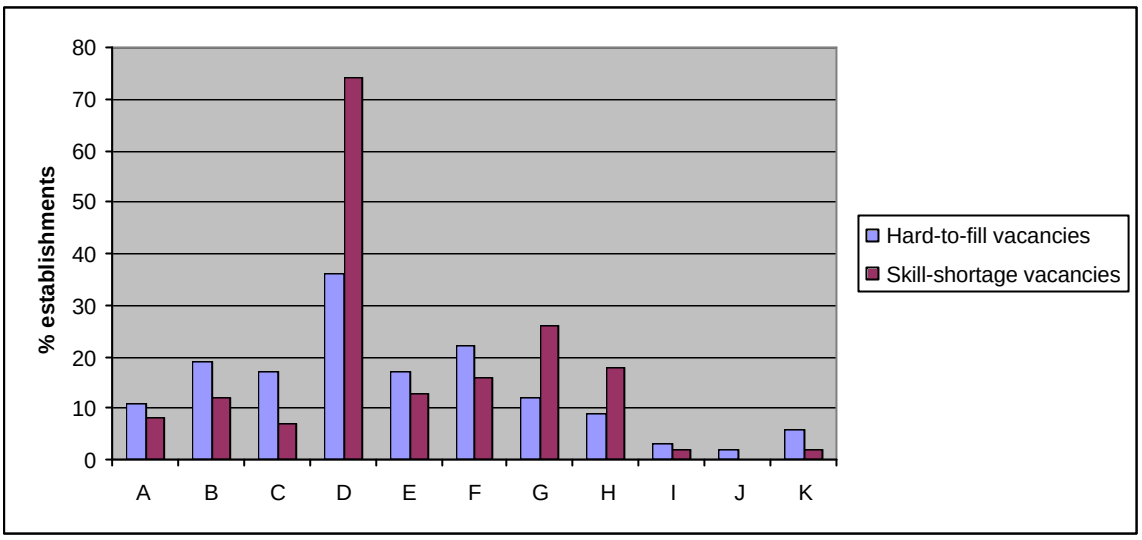
ESS1999. Around 74 per cent of establishments reported skill-shortage vacancies arising from 'a low number of applicants with the required skills', compared to just 26 per cent that mentioned 'work experience the company demands', and 18 per cent that referred to 'lack of qualifications' *(see Figure 2.1)*.

**TABLE 2.1**
**OVERALL NUMBER OF VACANCIES**

| | % of all establishments reporting | Number of vacancies (a) '000s |
|---|---|---|
| **2001** | | |
| **All Establishments** | | |
| All vacancies | 14 | 766 |
| Hard-to-fill vacancies | 8 | 358 |
| Skill-shortage vacancies (b) | 4 | 159 |
| | | |
| **2001** | | |
| **Establishments with 5 or more employees**[c] | | |
| All vacancies | 27 | 535 |
| Hard-to-fill vacancies | 14 | 233 |
| Skill-shortage vacancies | 6 | 95 |
| | | |
| **1999** | | |
| **Establishments with 5 or more employees** | | |
| All vacancies | 32 | 560 |
| Hard-to-fill vacancies | 16 | 255 |
| Skill-shortage vacancies | 8 | 110 |

Base: All establishments
Source: ESS 2001 (IER/IFF)
Note: (a) Grossed up survey-based estimates.
(b) Skill-related hard-to-fill vacancies are defined as those for which at least one of the following causes of hard-to-fill vacancies was cited: 'Low number of applicants with the required skills'; 'Lack of work experience the company demands'; 'Lack of qualifications the company demands'.
(c) This is the corresponding sample to that used in ESS1999.

**FIGURE 2.1**
**REASONS FOR HARD-TO-FILL AND SKILL-SHORTAGE VACANCIES**




Base: All establishments with hard-to-fill/skill-shortage vacancies
Source: ESS2001

Key:
A - Too much competition
B – Not enough people interested
C – Company does not pay enough
D – Low number of applicants with skills
E – Low number of applicants with motivation etc.
F – Low number of applicants generally
G – Lack of work experience
H – Lack of qualifications
I – Company location
J – Irregular Hours
K – Other

## 2.3 Overall numbers of vacancies

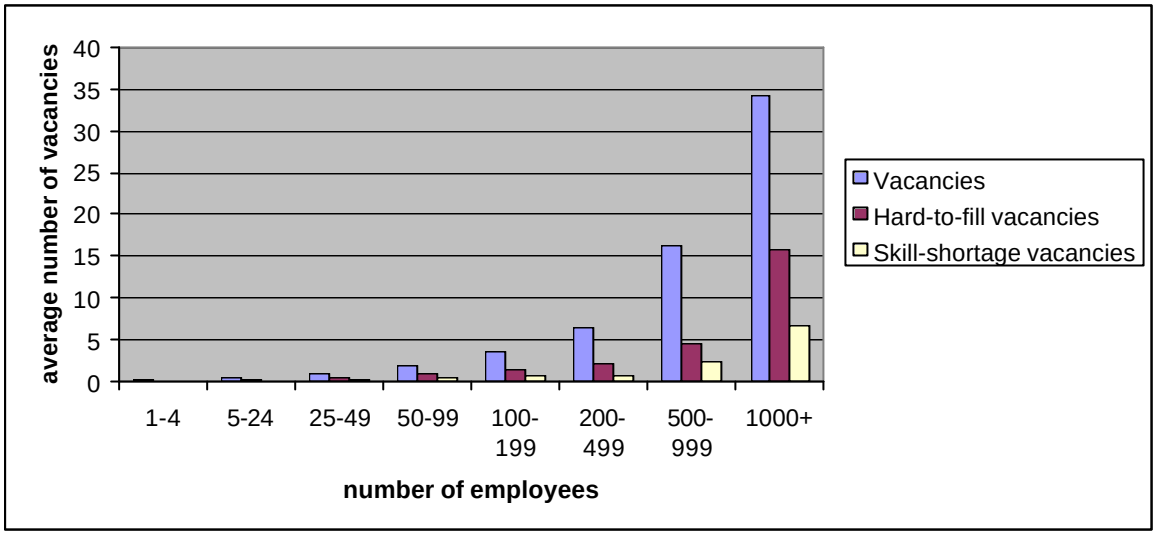
The analysis so far has focused on the number of establishments as the base for the percentages, presenting the proportion of employers who face recruitment problems. It is also informative to present the data based on the overall number of vacancies, hard-to-fill vacancies, and skill-shortage vacancies, in order to reveal how they are distributed through the economy. This is referred to as the overall distribution in the remainder of this document. Grossing up the results from the survey suggests that there were approximately 766 thousand job vacancies in England *(see Table 2.1)*. This is equivalent to around 4 per cent of employment.

Many vacancies are of short duration and reflect the natural functioning of the labour market. Given the aim of the research to quantify skill deficiencies, the emphasis here is on hard-to-fill vacancies and in particular those hard-to-fill vacancies which are skill related. The survey reveals that 358 thousand (approximately 47 per cent) of unfilled vacancies were described as hard-to-fill by respondents. Of these, 159 thousand (21 per cent of all vacancies) were due to skill-shortages in that they were explicitly attributed to a lack of job applicants with the required skills, qualifications, or work experience *(see Table 2.1)*.

## 2.4 Variations by establishment size

Across all establishments the average number of reported vacancies was 0.5, representing 3.7 per cent of employment. Larger establishments reported a much larger number of vacancies *(see Figure 2.2)*. In part, this is purely a function of size, the more jobs there are at an establishment the more likely there will be a vacancy reported.

**FIGURE 2.2**
**AVERAGE NUMBER OF VACANCIES BY ESTABLISHMENT SIZE**




Base: All establishments
Source: ESS2001 (IER/IFF)

Larger establishments were also more likely to report some hard-to-fill vacancies *(see Table 2.2)*. Approximately 46 per cent of establishments with 1000 or more employees reported hard-to-fill vacancies compared to 5 per cent of those with 1-4 employees, and 11 per cent with 5-24 employees. The propensity to report skill-shortage vacancies is also related to size of establishment *(see Table 2.3)*. Whereas 22 per cent of establishments with 1000 or more employees reported some skill-shortage vacancies, a small proportion of establishments with 1-4 employees reported them, and only 5 per cent of establishments with between 5 and 24 employees reported such vacancies[4].

The simple measure of the incidence of vacancies provides no information about the relative importance of that vacancy to the establishment. Though larger establishments reported a higher number of vacancies, these will, in general, constitute a small proportion of the workforce. In contrast, one or two hard-to-fill vacancies in an establishment employing a small number of people may constitute a sizeable proportion of the workforce and make a crucial difference. To deal with this problem, much of the analysis in this chapter is based on a measure of density: the number of vacancies expressed as a proportion of total employment. The analysis is confined primarily to those establishments that reported skill-shortage vacancies.

It is apparent that vacancies can comprise a substantial proportion of the workforce. The problem is particularly acute for establishments employing a small number of people. Though these establishments were less likely to report a skill-shortage vacancy, when one occurs, the evidence suggests that this may pose a particularly acute problem. For instance, approximately 16 per cent of those establishments with 5-24 employees that had skill-shortage vacancies reported that these accounted for over 25 per cent of the workforce compared to no establishments with 1000 or more employees *(see Table 2.4)*. Overall, skill-shortage vacancies accounted for 0.8 per cent of total employment, but accounted for 3 per cent of employment in establishments with 1-4 employees and just 0.4 per cent with 1000 or more employees.

[4] The population of establishments by number of employees needs to be borne in mind here – *see section 1.7.*

**TABLE 2.2**
**VACANCIES AND HARD-TO-FILL VACANCIES BY ESTABLISHMENT SIZE**

column percentages/averages/ratios

| No. of employees at establishment | 1-4 | 5-24 | 25-49 | 50-99 | 100-199 | 200-499 | 500-999 | 1000+ | All |
|---|---|---|---|---|---|---|---|---|---|
| **Vacancies** | | | | | | | | | |
| % reporting vacancies | 10 | 21 | 36 | 48 | 55 | 64 | 69 | 74 | 15 |
| Average number of vacancies (mean) | 0.2 | 0.4 | 1.0 | 2.0 | 3.6 | 6.4 | 16.3 | 34.2 | 0.4 |
| Total number of vacancies | 228860 | 187340 | 79766 | 82048 | 55838 | 69626 | 30811 | 34639 | 768929 |
| Vacancies as a % of employment | 10.2 | 4.1 | 3.1 | 3.0 | 2.7 | 2.2 | 2.5 | 1.8 | 3.7 |
| **Hard-to-fill vacancies** | | | | | | | | | |
| % reporting hard-to-fill vacancies | 5 | 11 | 17 | 24 | 25 | 27 | 29 | 46 | 7 |
| Average number of hard-to-fill vacancies (mean) | 0.1 | 0.2 | 0.5 | 1.0 | 1.4 | 2.2 | 4.5 | 15.8 | 0.2 |
| Total number of hard-to-fill vacancies | 118890 | 91155 | 34702 | 41568 | 21163 | 23872 | 8575 | 16018 | 355943 |
| Hard-to-fill vacancies as a % of employment | 5.3 | 2.0 | 1.3 | 1.5 | 1.0 | 0.7 | 0.7 | 0.8 | 1.7 |
| Weighted base | 1481191 | 430708 | 75978 | 41507 | 15493 | 10928 | 1895 | 1014 | 2058714 |
| Unweighted base | 3701 | 8766 | 6151 | 3306 | 2605 | 1799 | 456 | 247 | 27031 |

Source: ESS 2001 (IER/IFF)
Base: All Establishments
Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy.

**TABLE 2.3**
**SKILL-SHORTAGE VACANCIES BY ESTABLISHMENT SIZE**

| No. of employees at establishment | 1-4 | 5-24 | 25-49 | 50-99 | 100-199 | 200-499 | 500-999 | 1000+ | All |
|---|---|---|---|---|---|---|---|---|---|
| **Skill-shortage vacancies** | | | | | | | | | |
| % reporting skill-shortage vacancies | 3 | 5 | 7 | 11 | 12 | 13 | 15 | 22 | 4 |
| Average no. of skill-shortage vacancies | 0.0 | 0.1 | 0.2 | 0.4 | 0.7 | 0.8 | 2.3 | 6.8 | 0.1 |
| Total skill-shortage vacancies | 62756 | 35653 | 13054 | 15710 | 11420 | 8293 | 4271 | 6900 | 158056 |
| Skills shortage vacancies as a % of employment | 3.0 | 0.8 | 0.5 | 0.6 | 0.6 | 0.3 | 0.3 | 0.4 | 0.8 |
| Skills shortage vacancies as a % of total vacancies | 27.4 | 19.0 | 16.4 | 19.1 | 20.5 | 11.9 | 13.9 | 19.9 | 20.6 |
| Weighted Base | 1481191 | 430708 | 75978 | 41507 | 15493 | 10928 | 1895 | 1014 | 2058714 |
| Unweighted Base | 3701 | 8766 | 6151 | 3306 | 2605 | 1799 | 456 | 247 | 27031 |

Base: All Establishments
Source: ESS 2001 (IER/IFF)
Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy.

**TABLE 2.4**
**DENSITY OF SKILL-SHORTAGE VACANCIES BY ESTABLISHMENT SIZE**

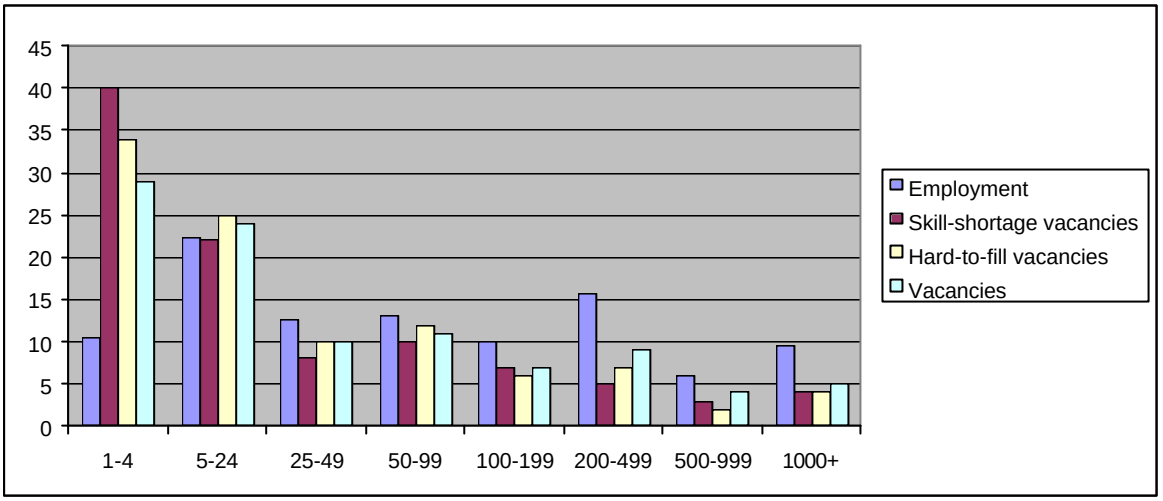
column percentages

| No. of employees at establishment | **1-4** | **5-24** | **25-49** | **50-99** | **100-199** | **200-499** | **500-999** | **1000+** | **All** |
|---|---|---|---|---|---|---|---|---|---|
| Skill-shortage vacancies as a % of the workforce | | | | | | | | | |
| 1% | - | - | - | 15 | 38 | 38 | 33 | 34 | 3 |
| 2-4% | - | 2 | 50 | 49 | 38 | 27 | 30 | 28 | 9 |
| 5-9% | - | 22 | 30 | 22 | 17 | 11 | 10 | 3 | 10 |
| 10-24% | - | 60 | 16 | 11 | 4 | 1 | 1 | 0 | 18 |
| 25%+ | 100 | 16 | 4 | 2 | 2 | 0 | 0 | 0 | 60 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Skill-shortage vacancies as a % of employment (%) | 3.0 | 0.8 | 0.5 | 0.6 | 0.6 | 0.3 | 0.3 | 0.4 | 0.8 |
| Weighted Base | 108 | 464 | 461 | 343 | 305 | 230 | 66 | 56 | 2033 |
| Unweighted Base | 41271 | 20019 | 5555 | 4469 | 1807 | 1450 | 282 | 228 | 75081 |

Base: All Establishments with skill-shortage vacancies
Source: ESS2001 (IER/IFF)
Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy.

The overall distribution of vacancies, hard-to-fill vacancies and skill-shortage vacancies by the size of establishments is summarised in *Figure 2.3*. Most vacancies were located in establishments employing between 1 and 24 employees; such establishments accounted for 54 per cent of all vacancies. These smaller firms accounted for 59 per cent of vacancies that were hard-to-fill, and 63 per cent of skill-shortage vacancies.

**FIGURE 2.3**
**OVERALL DISTRIBUTION OF VACANCIES AND EMPLOYMENT BY SIZE OF ESTABLISHMENT**




Base: Employment, vacancies, hard-to-fill vacancies, skill-shortage vacancies
Source: ESS2001 (IER/IFF)

## 2.5 Vacancies by occupation

Reported vacancies by occupation will reflect, in part, the distribution of occupational employment in the economy overall. Various other factors will also be important such as the rate of growth of employment in different occupations, as well as the number of job openings arising due to replacement demand[5]. Another important factor is the propensity to use the internal as opposed to external labour market for filling job openings.

*Table 2.5* provides a summary of the pattern of vacancies by occupation and compares this with the overall structure of employment. The shares of vacancies in different occupations are also illustrated in *Figure 2.4*.

This analysis reveals that associate professional, administrative and secretarial, sales/customer service occupations and elementary occupations accounted for the highest proportions of vacancies *(see Figure 2.4)*. There are, however, some notable differences between the distribution of vacancies, hard-to-fill vacancies, and skill-shortage vacancies. Whereas skilled trades occupations accounted for a relatively modest proportion of vacancies (11 per cent) they accounted for 16 per cent of all hard-to-fill vacancies and 20 per cent of skill-shortage vacancies. A similar pattern is evident in professional occupations. Conversely, administrative and secretarial occupations, sales/customer service occupations and elementary occupations accounted for a lower proportion of hard-to-fill vacancies than vacancies overall.

5 That is the need to replace those leaving employment for retirement and other reasons – see R.A. Wilson, *Review of the Economy and Employment 2001/2002*, Warwick Institute for Employment Research, University of Warwick, 2001.

**FIGURE 2.4**
**DISTRIBUTION OF VACANCIES BY OCCUPATION**


Base: Vacancies
Source: ESS2001 (IER/IFF)

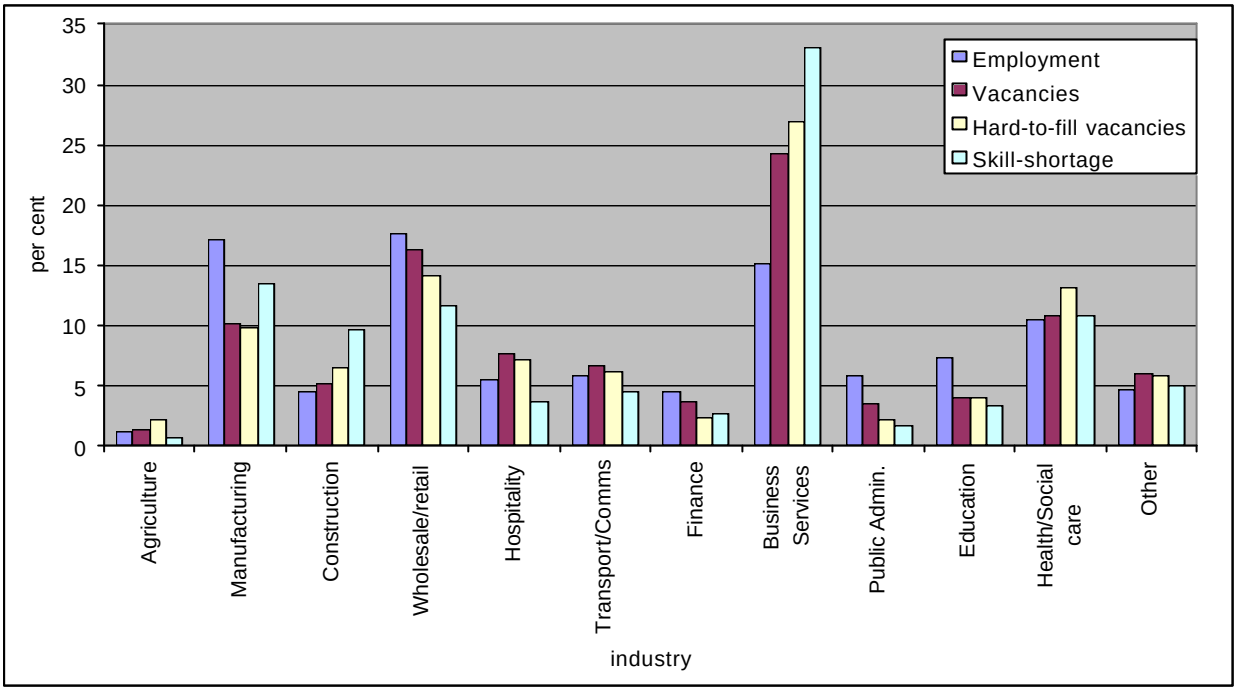
Where an establishment reported more than one hard-to-fill vacancy in an occupation there was the possibility that other hard-to-fill vacancies may be reported in other occupations (*see Table 2.6*). Overall, the data pointed to hard-to-fill vacancies, at an occupational level for most establishments, not existing in combination.

## 2.6 Vacancies by sector

*Summary of the Total Number of Vacancies by Sector*

*Figure 2.5* and *Table 2.7* provide a summary of the overall number of vacancies by sector, including a comparison with the total level of employment. Business services accounts for the greatest proportion of vacancies, hard-to-fill vacancies, and skill-shortage vacancies (24 per cent, 27 per cent, and 33 per cent respectively). The share of skill-shortage vacancies in this sector and in construction is disproportionate to their share of employment. Manufacturing, wholesale/retail, and health and social care also stand out as having large proportions of skill-shortage vacancies.

**FIGURE 2.5**
**OVERALL DISTRIBUTION OF VACANCIES BY SECTOR**




Base: Vacancies
Source: ESS 2001 (IER/IFF)

**TABLE 2.5**

**SUMMARY OF REPORTED VACANCIES BY OCCUPATION**

absolutes/column percentages/ratios

| | SURVEY-BASED ESTIMATES: | | | | | | |
|---|---|---|---|---|---|---|---|
| | Total Employment | Total unfilled vacancies | Total unfilled vacancies as a % of employment | Total hard-to-fill vacancies | Total hard-to-fill vacancies as a % of employment | Total skill-shortage vacancies | Total skill-shortage vacancies as a % of employment |
| Unweighted Base | 2,195,131 | 55,254 | | 22.433 | | 9,357 | |
| Weighted Base | 20,497,974 | 765,602 | | 357,681 | | 159,081 | |
| *Percentages* | | | | | | | |
| Managers/senior officials | 16 | 5 | 1.2 | 4 | 0.4 | 5 | 0.3 |
| Professional | 13 | 9 | 2.6 | 12 | 1.6 | 19 | 1.1 |
| Associate professional | 8 | 16 | 7.4 | 17 | 3.7 | 18 | 1.7 |
| Administrative/secretarial | 15 | 12 | 3.0 | 7 | 0.8 | 7 | 0.3 |
| Skilled Trades | 9 | 10 | 4.2 | 14 | 2.7 | 17 | 1.5 |
| Personal service | 7 | 9 | 4.7 | 11 | 2.6 | 9 | 1.0 |
| Sales/Customer Service | 13 | 14 | 4.3 | 13 | 1.7 | 9 | 0.6 |
| Operatives | 11 | 9 | 3.2 | 9 | 1.5 | 9 | 0.7 |
| Elementary occupations | 8 | 14 | 6.4 | 13 | 2.7 | 5 | 0.5 |
| TOTAL | 100 | 100 | 3.7 | 100 | 1.7 | 100 | 0.8 |

Base: As specified at column head
Source: ESS2001 (IER/IFF)
Note: (a) Grossed up survey-based estimates.
(b) Skill-shortage vacancies are defined as those for which at least one of the following causes of hard-to-fill vacancies was cited: ‘Low number of applicants with the required skills’; ‘Lack of work experience the company demands’; ‘Lack of qualifications the company demands’.

**TABLE 2.6**

**PROPORTION OF ESTABLISHMENTS WITH HARD-TO-FILL VACANCIES IN ONE OCCUPATION REPORTING HARD-TO-FILL VACANCIES IN OTHER OCCUPATIONS**

column percentages

| | SOC | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Managers & senior officials | Professional occupations | Associate professional | Administrative & secretarial occupations | Skilled trades | Personal service occupations | Sales and customer service occupations | Operatives | Elementary occupations |
| Managers/senior officials | 100 | 3.8 | 3.3 | 6.7 | 2.0 | 1.8 | 4.9 | 3.7 | 2.8 |
| Professional | 6.8 | 100 | 4.2 | 6.7 | 0.9 | 2.8 | 2.0 | 0.7 | 2.4 |
| Associate professional | 9.4 | 6.6 | 100 | 6.5 | 1.7 | 5.2 | 5.3 | 2.3 | 2.1 |
| Administrative/ secretarial | 8.4 | 4.7 | 2.9 | 100 | 1.9 | 1.4 | 2.6 | 6.6 | 3.1 |
| Skilled trades | 8.1 | 2.1 | 2.5 | 6.4 | 100 | 2.4 | 3 | 7.4 | 8.3 |
| Personal service | 3.4 | 3.0 | 3.5 | 2.2 | 1.1 | 100 | 0.0 | 0.3 | 7.4 |
| Sales/Customer Service | 7.7 | 1.7 | 3.0 | 3.2 | 1.2 | 0.0 | 100 | 1.2 | 4.1 |
| Operatives | 5.6 | 0.6 | 1.2 | 7.9 | 2.7 | 0.2 | 1.1 | 100 | 3.7 |
| Elementary occupations | 7.2 | 3.4 | 1.9 | 6.4 | 5.1 | 9.7 | 6.5 | 6.2 | 100 |
| No other occupations | 53.1 | 78.1 | 81.3 | 59.2 | 86.0 | 80.7 | 77.4 | 73.0 | 70.8 |

Base: All establishments with more than one hard-to-fill vacancy
Source: ESS 2001(IER/IFF)
Note: Because of problems of small sample sizes it is not possible to replicate this table for skill-shortage vacancies.

**TABLE 2.7**
**SUMMARY OF VACANCIES ANALYSED BY SECTOR**

absolute/column percentages/ratios

| | Total Employment, England | Total unfilled vacancies | Total unfilled vacancies as a % of employment | Total hard-to-fill vacancies | Total hard-to-fill vacancies as a % of employment | Total skill-shortage Vacancies | Total skill-shortage Vacancies as a % of employment |
|---|---|---|---|---|---|---|---|
| Unweighted Base | 2,195,131 | 55,251 | | 22.433 | | 9,357 | |
| Weighted Base | 20,584,090 | 768,929 | | 355,943 | | 158,056 | |
| *Percentages* | | | | | | | |
| Agriculture | 1 | 1 | 4.4 | 2 | 3.1 | 1 | 0.6 |
| Manufacturing | 18 | 10 | 2.1 | 9 | 0.9 | 12 | 0.5 |
| Construction | 4 | 5 | 4.3 | 6 | 2.6 | 9 | 1.7 |
| Wholesale & Retail | 18 | 16 | 3.3 | 14 | 1.4 | 12 | 0.5 |
| Hospitality | 6 | 8 | 5.3 | 8 | 2.4 | 4 | 0.5 |
| Transport & Communications | 6 | 7 | 4.4 | 6 | 1.8 | 5 | 0.6 |
| Finance | 4 | 4 | 3.4 | 3 | 1.1 | 3 | 0.5 |
| Business Services | 15 | 25 | 6.1 | 27 | 3.1 | 34 | 1.7 |
| Public Administration | 6 | 4 | 2.3 | 2 | 0.7 | 2 | 0.2 |
| Education | 7 | 4 | 2.0 | 4 | 0.9 | 3 | 0.4 |
| Health & Social Care | 10 | 11 | 3.9 | 13 | 2.1 | 10 | 0.8 |
| Other Services | 5 | 6 | 4.9 | 6 | 2.2 | 5 | 0.9 |
| TOTAL | 100 | 100 | 3.7 | 100 | 1.7 | 100 | 0.8 |

Base: As specified at column head
Source: ESS 2001 (IER/IFF)

*Incidence of vacancies by sector*

Information on incidence (*ie* the proportion of establishments reporting vacancies) is given below. Service sector establishments – especially in the public sector - were more likely to report vacancies than those in manufacturing or construction *(see Table 2.8)*. Finance, public administration, education, and health and social care were more likely to report that they had vacancies than any other sector.

The incidence of skill-shortage vacancies by sector is shown in *Table 2.9*. It is the construction sector which stands out, with 7 per cent of establishments reporting some skill-shortage vacancies compared to the average of 4 per cent.

There were some variations in the density of skill-shortage vacancies by sector (*Table 2.10*). In construction and business services skill-shortages represented a *greater* proportion of the workforce than in other sectors. By contrast, skill-shortages in public administration and education sectors represented a much smaller proportion of the workforce.

*Distribution by sector and occupation*

A more detailed picture of the overall distribution of vacancies by occupation and sector is provided in *Table 2.11a*. The key results to emerge for vacancies were:

- senior officials/manager vacancies were concentrated in wholesale/retail, business services, and health and social care;
- over a half of all vacancies for professionals were to be found in business services;
- associate professional vacancies were also concentrated in business services and to a lesser extent in health and social care;
- administrative/secretarial vacancies were spread across sectors with a concentration in business services;
- skilled trades vacancies were predominantly in manufacturing, construction and wholesale/retail;
- nearly a half of vacancies for personal service occupations were to be found in health and social work, with nearly a third in other services;
- nearly two thirds of sales/customer service vacancies were in retail/wholesale;
- around a third of production and process operative vacancies were in manufacturing, and transport and communication, respectively
- vacancies for elementary occupations were concentrated in hotels and restaurants, and, to a lesser extent, business services.

A similar analysis to that provided for vacancies can be provided for the overall distribution of hard-to-fill vacancies *(see Table 2.12a)*. The specific occupation/industry locations of hard-to-fill vacancies are as follows:

- senior officials/managers vacancies were concentrated in business services.
- the majority of hard-to-fill vacancies for professionals were in business services;
- associate professional hard-to-fill vacancies were concentrated in business services and to a lesser extent in health and social care;
- administrative/secretarial hard-to-fill vacancies were concentrated in transport/communications, business services, and public administration;
- skilled trades vacancies were predominantly in manufacturing, construction and wholesale/retail;
- hard-to-fill vacancies in personal service occupations were mainly in health and

social care and other services;

- sales/customer service vacancies were mainly hard-to-fill in wholesale/retail services and to a lesser extent in business services;
- operative vacancies were hard-to-fill mainly in transport and communication and manufacturing;
- elementary occupation hard-to-fill vacancies were concentrated in hotels and restaurants.

The overall pattern for skill-shortage vacancies is similar to that for hard-to-fill vacancies *(see Table 2.13a)*. *Tables 2.11b, 2.12b and 2.13b* show findings for the distribution of vacancies, hard-to-fill vacancies and skill-shortage vacancies within industry by occupation. To a large extent, these tables reflect the pattern of employment within sectors.

**TABLE 2.8**
**VACANCIES AND INDUSTRIAL SECTOR**

column percentages/averages/ratios

| Sector | Agriculture | Manu'ring | Const'tion | Wholesale & Retail | Hotels & Rest'nts | Transport & Comms | Finance | Business Services | Public Admin | Education | Health & Social Care | Other Services | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Vacancies** | | | | | | | | | | | | | |
| % reporting vacancies | 7 | 14 | 9 | 14 | 16 | 16 | 21 | 15 | 23 | 27 | 25 | 13 | 15 |
| Average number of vacancies (mean) | 0.2 | 0.4 | 0.2 | 0.3 | 0.4 | 0.6 | 0.7 | 0.4 | 1.3 | 0.7 | 0.9 | 0.3 | 0.4 |
| Total Vacancies | 10,330 | 76,743 | 37,277 | 120,865 | 60,837 | 53,551 | 31,305 | 190,139 | 26,931 | 30,476 | 82,623 | 47,852 | 768,929 |
| Vacancies as a % of employment (%) | 4.4 | 2.1 | 4.3 | 3.3 | 5.3 | 4.4 | 3.4 | 6.1 | 2.3 | 2.0 | 3.9 | 4.9 | 3.7 |
| **Hard-to-fill vacancies** | | | | | | | | | | | | | |
| % reporting hard-to-fill vacancies | 5 | 7 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 15 | 13 | 7 | 7 |
| Average number of hard-to-fill vacancies (mean) | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.4 | 0.3 | 0.5 | 0.1 | 0.2 |
| Total hard-to-fill vacancies | 7,384 | 32,687 | 22,410 | 49,067 | 27,153 | 22,308 | 10,235 | 96,959 | 7910 | 14,169 | 44,621 | 21,041 | 355,943 |
| Hard-to-fill vacancies as a % of employment (%) | 3.1 | 0.9 | 2.6 | 1.4 | 2.4 | 1.8 | 1.1 | 3.1 | 0.7 | 0.9 | 2.1 | 2.2 | 1.7 |
| Weighted Base | 61,185 | 187,333 | 188,504 | 480,035 | 144,058 | 91,517 | 43,779 | 515,813 | 20,523 | 47,006 | 89,945 | 189,016 | 2058714 |
| Unweighted Base | 329 | 4215 | 2364 | 3361 | 2991 | 1872 | 820 | 4140 | 545 | 1437 | 2461 | 2374 | 27031 |

Base: All Establishments
Source: ESS 2001 (IER/IFF)
Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy respectively.

**TABLE 2.9**
**SKILLS SHORTAGE VACANCIES AND INDUSTRIAL SECTOR**

column percentages/averages/ratios

| Sector | Agriculture | Manu' ring | Const' tion | Wholesale & Retail | Hotels & Rest'nts | Transport & Comms | Finance | Business Services | Public Admin | Education | Health & Social Care | Other Services | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Skills shortage vacancies** % of establishments reporting skills shortage vacancies | 1 | 4 | 4 | 2 | 3 | 4 | 4 | 5 | 4 | 5 | 5 | 3 | 4 |
| Average number of skills shortage vacancies per establishment | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.0 | 0.1 |
| Total skills shortage vacancies | 1,335 | 18,358 | 14,620 | 18,210 | 6,323 | 7,387 | 4,864 | 53,745 | 2729 | 5,299 | 16,563 | 8,623 | 158,056 |
| Skills shortage vacancies as a % of employment | 0.6 | 0.5 | 1.7 | 0.5 | 0.5 | 0.6 | 0.5 | 1.7 | 0.2 | 0.4 | 0.8 | 0.9 | 0.8 |
| Skill-shortage vacancies as a % of all vacancies | 13 | 24 | 39 | 15 | 10 | 14 | 16 | 28 | 10 | 17 | 20 | 18 | 21 |
| Weighted Base | 61,185 | 187,333 | 188,504 | 480,035 | 144,058 | 91,517 | 43,779 | 515,813 | 20,523 | 47,006 | 89,945 | 189,016 | 2058714 |
| Unweighted Base | 329 | 4215 | 2364 | 3361 | 2991 | 1872 | 820 | 4140 | 545 | 1437 | 2461 | 2374 | 27031 |

Source: ESS 2001 (IER/IFF)
Base: All Establishments
Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy respectively.

**TABLE 2.10**

**DENSITY OF SKILLS SHORTAGE VACANCIES BY SECTOR**

column percentages/ratios

| | Agriculture | Manu' Ring | Const' tion | Wholsal e & Retail | Hotels & Rest'nts | Transport & Comms | Finance | Business Services | Public Admin | Education | Health & Social Care | Other Services | All Establishments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Skills shortage vacancies as a % of the workforce** | | | | | | | | | | | | | |
| 1% | 2 | 8 | 1 | 1 | 2 | 1 | 3 | 1 | 24 | 9 | 4 | 1 | 3 |
| 2-4% | 4 | 15 | 3 | 8 | 9 | 9 | 19 | 5 | 16 | 40 | 21 | 4 | 9 |
| 5-9% | 3 | 15 | 9 | 8 | 17 | 18 | 9 | 6 | 27 | 19 | 21 | 7 | 10 |
| 10-24% | 23 | 19 | 14 | 27 | 24 | 22 | 33 | 12 | 22 | 21 | 26 | 12 | 18 |
| 25%+ | 69 | 41 | 73 | 55 | 47 | 49 | 34 | 76 | 0 | 9 | 27 | 76 | 60 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Skills shortage vacancies as a % of employment (%) | 0.5 | 0.6 | 1.7 | 0.5 | 0.5 | 0.6 | 0.5 | 1.7 | 0.2 | 0.4 | 0.8 | 0.8 | 0.8 |
| Total number skill-shortage Vacancies | 1146 | 21443 | 15438 | 18516 | 5881 | 7215 | 4253 | 51749 | 2729 | 5314 | 16945 | 8013 | 159081 |
| Weighted Base (no. of estabs) | 599 | 7450 | 7228 | 12301 | 3849 | 3484 | 1396 | 26002 | 844 | 2254 | 4119 | 5410 | 75081 |
| Unweighted Base | 11 | 370 | 202 | 171 | 157 | 139 | 55 | 411 | 42 | 125 | 221 | 118 | 2033 |

Base: All establishments with skill-shortage vacancies

Source: ESS 2001 (IER/IFF)

Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy respectively.

**TABLE 2.11A**

**OVERALL DISTRIBUTION OF VACANCIES BY SECTOR AND OCCUPATION**

column percentages

| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled Trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 1 | 5 | 1 |
| Manufacturing | 9 | 8 | 7 | 10 | 19 | 0 | 4 | 33 | 6 | 10 |
| Construction | 3 | 2 | 2 | 5 | 28 | 0 | 1 | 3 | 2 | 5 |
| Wholesale, retail trade | 16 | 1 | 6 | 9 | 19 | 0 | 59 | 8 | 10 | 16 |
| Hotels & restaurants | 7 | 0 | 0 | 2 | 10 | 1 | 5 | 1 | 37 | 8 |
| Transport & communication | 3 | 1 | 2 | 7 | 2 | 2 | 4 | 39 | 7 | 7 |
| Finance | 8 | 3 | 9 | 8 | 0 | 0 | 5 | 0 | 0 | 4 |
| Business services | 23 | 54 | 42 | 31 | 10 | 11 | 17 | 13 | 15 | 25 |
| Public Administration | 9 | 3 | 5 | 11 | 0 | 2 | 1 | 0 | 1 | 4 |
| Education | 1 | 22 | 2 | 3 | 0 | 7 | 1 | 0 | 3 | 4 |
| Health & Social care | 17 | 4 | 22 | 8 | 3 | 45 | 1 | 0 | 4 | 11 |
| Other Services | 4 | 2 | 2 | 5 | 4 | 30 | 2 | 1 | 9 | 6 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | | | | | | | | | |
| Weighted Base | 37,889 | 69,167 | 125,164 | 94,380 | 77,976 | 70,251 | 109,378 | 69,368 | 109,254 | 768,941 |
| Unweighted base | 2334 | 6564 | 9556 | 6908 | 4143 | 4417 | 6847 | 5297 | 8783 | 55254 |

Base: All vacancies

Source: ESS 2001 (IER/IFF)

**TABLE 2.11B**

**OVERALL DISTRIBUTION OF VACANCIES BY SECTOR AND OCCUPATION**

row percentages

| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled Trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total | Weighted base | Unweighted base |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | 1 | 0 | 1 | 2 | 25 | 7 | 1 | 8 | 55 | 100 | 10,330 | 295 |
| Manufacturing | 4 | 7 | 11 | 13 | 20 | * | 6 | 30 | 8 | 100 | 76,743 | 8140 |
| Construction | 3 | 4 | 6 | 11 | 60 | * | 3 | 6 | 5 | 100 | 37,277 | 1774 |
| Wholesale, retail trade | 5 | 1 | 7 | 7 | 13 | * | 53 | 5 | 9 | 100 | 120,865 | 6405 |
| Hotels & restaurants | 4 | * | * | 4 | 13 | 1 | 9 | 1 | 67 | 100 | 60,837 | 5621 |
| Transport & communication | 2 | 2 | 4 | 12 | 3 | 3 | 9 | 50 | 15 | 100 | 53,551 | 3911 |
| Finance | 10 | 6 | 37 | 26 | * | 1 | 18 | * | 1 | 100 | 31,305 | 2317 |
| Business services | 5 | 20 | 28 | 15 | 4 | 4 | 10 | 5 | 9 | 100 | 190,139 | 9037 |
| Public Administration | 13 | 8 | 24 | 40 | 1 | 5 | 3 | 1 | 5 | 100 | 26,931 | 2222 |
| Education | 2 | 50 | 10 | 9 | 1 | 16 | 3 | * | 9 | 100 | 30,476 | 2780 |
| Health & Social care | 8 | 3 | 33 | 9 | 2 | 38 | 1 | * | 5 | 100 | 82,635 | 9949 |
| Other Services | 3 | 2 | 6 | 10 | 7 | 44 | 5 | 1 | 21 | 100 | 47,852 | 2523 |
| Total | 5 | 9 | 16 | 12 | 10 | 9 | 14 | 9 | 14 | 100 | 768,941 | 55254 |

Base: All vacancies
Source: ESS 2001 (IER/IFF)

**TABLE 2.12A**

**OVERALL DISTRIBUTION OF HARD-TO-FILL VACANCIES BY SECTOR AND OCCUPATION**

column percentages

| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | 1 | 0 | * | * | 3 | 1 | * | 2 | 9 | 2 |
| Manufacturing | 7 | 8 | 5 | 8 | 19 | * | 4 | 28 | 5 | 9 |
| Construction | 3 | 2 | 2 | 2 | 32 | 0 | 1 | 4 | 2 | 6 |
| Wholesale, retail trade | 12 | * | 7 | 9 | 19 | * | 52 | 8 | 10 | 14 |
| Hotels & restaurants | 7 | 0 | * | 3 | 9 | 1 | 7 | * | 37 | 8 |
| Transport & communication | 2 | 1 | 1 | 12 | 1 | 1 | 2 | 40 | 5 | 6 |
| Finance | 14 | 2 | 6 | 10 | * | 1 | 3 | 0 | & | 3 |
| Business services | 28 | 61 | 51 | 29 | 9 | 6 | 25 | 16 | 13 | 27 |
| Public Administration | 2 | 2 | 2 | 16 | * | 2 | * | 1 | 1 | 2 |
| Education | * | 19 | 2 | 1 | * | 6 | 2 | 0 | 4 | 4 |
| Health & Social care | 20 | 3 | 24 | 6 | 3 | 53 | 1 | * | 4 | 13 |
| Other Services | 4 | 1 | 1 | 3 | 5 | 28 | 2 | 1 | 10 | 6 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Weighted Base | 13,264 | 41,971 | 61,948 | 24,324 | 51,375 | 38,450 | 44,605 | 33,756 | 46,072 | 355,943 |
| Unweighted Base | 587 | 3344 | 4117 | 1714 | 2345 | 2578 | 1932 | 2667 | 3128 | 22433 |

Base: All hard-to-fill vacancies

Source: ESS 2001 (IER/IFF)

**TABLE 2.12B**

**OVERALL DISTRIBUTION OF HARD-TO-FILL VACANCIES BY SECTOR AND OCCUPATION**

row percentages

| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | 1 | 0 | 1 | 1 | 22 | 8 | 2 | 7 | 59 | 100 | 7,384 | 144 |
| Manufacturing | 3 | 11 | 9 | 6 | 30 | * | 6 | 29 | 6 | 100 | 32,687 | 3364 |
| Construction | 2 | 4 | 7 | 2 | 74 | 0 | 2 | 5 | 4 | 100 | 22,410 | 1069 |
| Wholesale, retail trade | 3 | * | 8 | 5 | 20 | * | 47 | 6 | 10 | 100 | 49,067 | 1722 |
| Hotels & restaurants | 4 | 0 | * | 3 | 17 | 1 | 12 | * | 63 | 100 | 27,153 | 2046 |
| Transport & communication | 1 | 3 | 3 | 14 | 2 | 2 | 5 | 60 | 10 | 100 | 22,308 | 1700 |
| Finance | 19 | 8 | 35 | 23 | 1 | 3 | 11 | 0 | 1 | 100 | 10,235 | 630 |
| Business services | 4 | 26 | 33 | 8 | 5 | 3 | 11 | 6 | 6 | 100 | 96,959 | 3737 |
| Public Administration | 3 | 12 | 14 | 50 | 1 | 10 | 1 | 3 | 8 | 100 | 7910 | 653 |
| Education | * | 55 | 8 | 2 | 1 | 16 | 6 | 0 | 12 | 100 | 14,169 | 1095 |
| Health & Social care | 6 | 3 | 33 | 4 | 3 | 46 | 1 | * | 4 | 100 | 44,621 | 5362 |
| Other Services | 3 | 1 | 3 | 3 | 12 | 51 | 4 | 2 | 22 | 100 | 21,041 | 824 |
| Total | 4 | 12 | 17 | 7 | 14 | 11 | 13 | 10 | 13 | 100 | 355,943 | 22433 |

Source: ESS 2001 (IER/IFF)

Base: All hard-to-fill vacancies

**TABLE 2.13A**

**OVERALL DISTRIBUTION OF SKILL-SHORTAGE VACANCIES BY SECTOR AND OCCUPATION**

column percentages

| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | * | 0 | * | 1 | 2 | 0 | 0 | 2 | 4 | 1 |
| Manufacturing | 9 | 6 | 7 | 9 | 25 | 0 | 6 | 32 | 6 | 12 |
| Construction | 3 | 2 | 3 | 1 | 42 | 0 | 1 | 6 | 3 | 9 |
| Wholesale, retail trade | 9 | 1 | 11 | 12 | 14 | * | 52 | 7 | 7 | 12 |
| Hotels & restaurants | 3 | 0 | 0 | 3 | 4 | * | 8 | * | 40 | 4 |
| Transport & communication | * | 1 | 1 | 7 | * | 2 | 4 | 29 | 11 | 5 |
| Finance | 23 | 1 | 4 | 13 | 0 | 0 | 1 | 0 | 0 | 3 |
| Business services | 41 | 77 | 47 | 34 | 9 | * | 24 | 24 | 5 | 34 |
| Public Administration | 2 | 1 | 3 | 10 | 0 | * | * | 0 | 4 | 2 |
| Education | * | 10 | 3 | 1 | * | 6 | 1 | 0 | 2 | 3 |
| Health & Social care | 6 | 2 | 21 | 8 | 1 | 53 | 1 | * | 5 | 10 |
| Other Community Services | 4 | * | 1 | 2 | 1 | 38 | 1 | 0 | 17 | 5 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Weighted Base | 8,209 | 29,959 | 29,151 | 10,708 | 27,396 | 14,833 | 14,572 | 14,645 | 8,460 | 158,056 |
| Unweighted Base | 327 | 1993 | 2036 | 896 | 1188 | 760 | 533 | 1077 | 537 | 9357 |

Base: All skill-shortage vacancies
Source: ESS 2001 (IER/IFF)

**TABLE 2.13B**

**OVERALL DISTRIBUTION OF SKILL-SHORTAGE VACANCIES BY SECTOR AND OCCUPATION**

row percentages

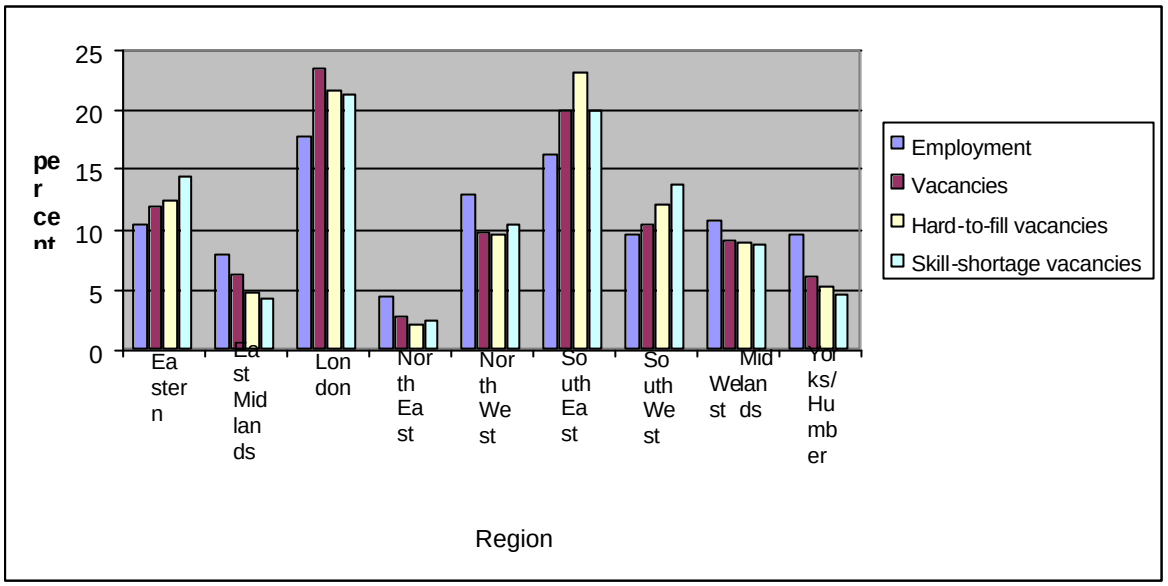
| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Agriculture* | *2* | *0* | *4* | *7* | *47* | *0* | *0* | *16* | *25* | *100* | *1,335* | *38* |
| Manufacturing | 4 | 10 | 11 | 5 | 38 | 0 | 5 | 26 | 3 | 100 | 18,358 | 1708 |
| Construction | 2 | 5 | 6 | 1 | 79 | 0 | 1 | 6 | 2 | 100 | 14,620 | 651 |
| Wholesale, retail trade | 4 | 1 | 17 | 7 | 21 | * | 42 | 5 | 3 | 100 | 18,210 | 504 |
| Hotels & restaurants | 4 | 0 | 0 | 4 | 19 | * | 19 | * | 53 | 100 | 6,323 | 385 |
| Transport & communication | * | 3 | 4 | 10 | 1 | 3 | 7 | 58 | 13 | 100 | 7,387 | 509 |
| Finance | 39 | 3 | 25 | 30 | 0 | 0 | 4 | 0 | 0 | 100 | 4,864 | 401 |
| Business services | 6 | 43 | 25 | 7 | 5 | * | 7 | 7 | 1 | 100 | 53,745 | 2099 |
| Public Administration | 5 | 12 | 30 | 39 | 0 | 2 | 1 | 0 | 11 | 100 | 2729 | 233 |
| Education | 1 | 58 | 14 | 2 | * | 18 | 4 | 0 | 3 | 100 | 5,299 | 397 |
| Health & Social care | 3 | 3 | 37 | 5 | 2 | 47 | 1 | * | 2 | 100 | 16,563 | 2080 |
| Other Services | 4 | 1 | 5 | 2 | 5 | 66 | 2 | * | 15 | 100 | 8,623 | 302 |
| Total | 5 | 19 | 18 | 7 | 17 | 9 | 9 | 9 | 5 | 100 | 158,056 | 9357 |

Base: All skill-shortage vacancies
Source: ESS 2001 (IER/IFF)

## 2.7 The spatial pattern of vacancies

The analysis by region reveals that vacancies, hard-to-fill vacancies, and skill-shortage vacancies were most commonly found in the London and South East regions (*see Figure 2.6*). The North East – and to a lesser extent the East Midlands - stand out as having a relatively small proportion of vacancies or hard-to-fill vacancies reported.

**FIGURE 2.6**
**OVERALL DISTRIBUTION OF VACANCIES, HARD-TO-FILL VACANCIES AND SKILL-SHORTAGE VACANCIES BY REGION**




Base: Employment, vacancies, hard-to-fill and skill shortage vacancies
Source: ESS2001 (IER/IFF)

However, London, South East, South West and Eastern regions havea disproportionate share of vacancies, hard-to-fill vacancies and skill-shortage vacancies in comparison to their share of employment. All other regions have a lower share of all types of vacancies than their share of employment would suggest (*see also Tables 2.14, 2.15 and 2.16*).

**TABLE 2.14**
**VACANCIES AND HARD-TO-FILL VACANCIES BY REGION**

column percentages/averages/ratios

| | East Midlands | Eastern | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humberside | England |
|---|---|---|---|---|---|---|---|---|---|---|
| **Vacancies** | | | | | | | | | | |
| % reporting vacancies | 13 | 17 | 16 | 12 | 12 | 15 | 15 | 16 | 10 | 15 |
| Average number of vacancies (mean) | 0.3 | 0.4 | 0.5 | 0.3 | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 |
| Total number of Vacancies | 48,319 | 96,162 | 183,750 | 21,776 | 76,164 | 152,560 | 74,099 | 69,473 | 46,627 | 768,929 |
| Vacancies as a % of employment | 2.9 | 4.5 | 5.0 | 2.3 | 2.9 | 4.6 | 3.8 | 3.1 | 2.4 | 3.7 |
| **Hard-to-fill vacancies** | | | | | | | | | | |
| % reporting hard-to-fill vacancies | 5 | 8 | 8 | 6 | 7 | 9 | 8 | 9 | 4 | 7 |
| Average number of hard-to-fill vacancies (mean) | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Total number of hard-to-fill vacancies | 16,845 | 46,924 | 78,287 | 8,533 | 34,055 | 82,909 | 38,235 | 31,599 | 18,555 | 355,943 |
| Hard-to-fill vacancies as a % of employment | 1.0 | 2.2 | 2.1 | 0.9 | 1.3 | 2.5 | 2.0 | 1.4 | 0.9 | 1.7 |
| Weighted Base | 161,546 | 233,565 | 382,227 | 72,064 | 246,165 | 366,648 | 216,207 | 200,724 | 179,569 | 2058714 |
| Unweighted Base | 2560 | 3035 | 4011 | 1999 | 3109 | 3908 | 2916 | 2816 | 2677 | 27031 |

Base: All Establishments
Source: ESS 2001 (IER/IFF)
Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy.

**TABLE 2.15**
**SKILLS SHORTAGE VACANCIES BY REGION**

column percentages/averages/ratios

| | East Midlands | Eastern | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humberside | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **Skills shortage vacancies** | | | | | | | | | | |
| % reporting skills shortage vacancies | 2 | 5 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 4 |
| Average no skills shortage vacancies | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 |
| Total skills shortage vacancies | 6,956 | 24,032 | 35,270 | 4,123 | 16,676 | 32,089 | 17,674 | 14,048 | 7,189 | 158,056 |
| Skills shortage vacancies as a % of employment | 0.4 | 1.1 | 1.0 | 0.4 | 0.6 | 1.0 | 0.9 | 0.6 | 0.4 | 0.8 |
| Skills shortage vacancies as a % of all vacancies | 14.4 | 25.0 | 19.2 | 18.9 | 21.9 | 21.0 | 23.9 | 20.2 | 15.4 | 20.6 |
| Weighted Base | 161,546 | 233,565 | 382,227 | 72,064 | 246,165 | 366,648 | 216,207 | 200,724 | 179,569 | 2058714 |
| Unweighted Base | 2560 | 3035 | 4011 | 1999 | 3109 | 3908 | 2916 | 2816 | 2677 | 27031 |

Base: All Establishments
Source: ESS 2001 (IER/IFF)
Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy.

**TABLE 2.16**
**DENSITY OF SKILL-SHORTAGE VACANCIES BY REGION**

column percentages/averages/ratios

| | East Midlands | Eastern | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humberside | England |
|---|---|---|---|---|---|---|---|---|---|---|
| Skill-shortage vacancies as a % of the workforce | | | | | | | | | | |
| 1 | 5 | 2 | 2 | 3 | 3 | 3 | 2 | 4 | 4 | 3 |
| 2-4 | 17 | 8 | 7 | 12 | 9 | 10 | 6 | 10 | 11 | 9 |
| 5-9 | 10 | 9 | 8 | 12 | 9 | 12 | 8 | 15 | 12 | 10 |
| 10-24 | 22 | 15 | 15 | 20 | 10 | 29 | 12 | 25 | 17 | 18 |
| 25+ | 45 | 66 | 67 | 52 | 68 | 46 | 71 | 45 | 54 | 60 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| **Skill-shortage vacancies as a % of employment** | **0.4** | **1.1** | **0.9** | **0.4** | **0.6** | **1.0** | **1.1** | **0.6** | **0.4** | **0.8** |
| Weighted Base | 3475 | 10602 | 15803 | 1914 | 8691 | 13950 | 10043 | 6666 | 3937 | 75081 |
| Unweighted Base | 163 | 256 | 343 | 84 | 186 | 399 | 216 | 244 | 142 | 2033 |

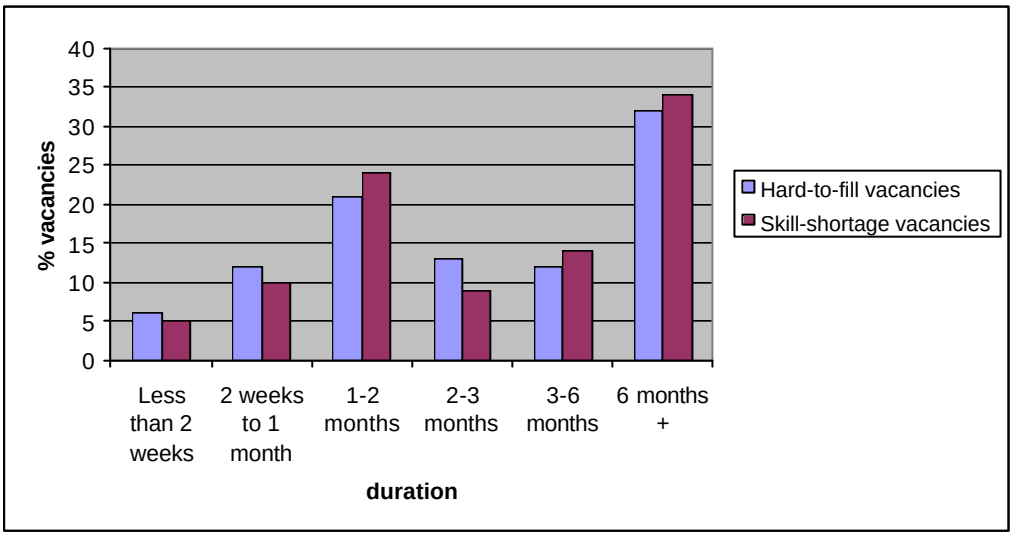
Base: All Establishments with skill-shortage vacancies
Source: ESS 2001 (IER/IFF)
Note: Where vacancies, hard-to-fill vacancies, or skill-shortage vacancies, are expressed as a proportion of employment, this refers to all employment, **not** just to employment in those establishments with each type of vacancy.

The South East, Eastern and the South West regions show more significant problems with respect to the density of skill-shortage vacancies *(see Table 2.16)*. Except for this, there is little variation by region in the density of skill-shortage vacancies.

## 2.8 Duration of hard-to-fill vacancies

Respondents were asked to define whether or not they considered a vacancy as hard-to-fill. An obvious criterion is the duration of time which elapses before a vacancy is classified as hard-to-fill. The duration data, however, are not complete as some hard-to-fill vacancies may remain open. Nevertheless, if the dates at which vacancies commenced are more or less random across the sample, then the measure of duration provided by the survey provides a good indication of the duration of hard-to-fill vacancies. The data revealed that many hard-to-fill vacancies and skill-shortage vacancies had lasted for longer than 6 months *(see Figure 2.7)*. There were few differences between the duration of hard-to-fill vacancies and skill-shortage vacancies, but overall the evidence suggests that skill-shortage vacancies take slightly longer to fill than hard-to-fill vacancies generally.

**FIGURE 2.7**
**DURATION OF HARD-TO-FILL VACANCIES**




Base: Vacancies
Source: ESS 2001 (IER/IFF)

Duration of vacancy is related to the occupation in which it exists *(see Table 2.17)*. It is notable that a relatively low proportion of hard-to-fill vacancies for managers/senior officials existed for six months or longer, reflecting possibly the need to find an alternative solution if it has not been possible to recruit someone into a management job.

A greater proportion of skill-shortage vacancies had lasted six months or longer for professionals (37 per cent of vacancies lasted six months or longer), skilled trades (60 per cent), and personal service (48 per cent).

**TABLE 2.17**
**DURATION OF HARD-TO-FILL VACANCIES BY OCCUPATION**

row percentages

| | Duration of hard-to-fill vacancies | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Less than 2 weeks | 2 weeks to 1 month | 1-2 months | 2-3 months | 3-6 months | More than 6 months | DK | Total | Weighted Base | Unweighted Base |
| Managers/ Senior Officials | 7 | 20 | 23 | 11 | 25 | 14 | * | 100 | 12784 | 587 |
| Professionals | 2 | 4 | 27 | 11 | 18 | 36 | 2 | 100 | 40757 | 3344 |
| Associate Professionals | 1 | 4 | 39 | 13 | 16 | 18 | 7 | 100 | 59386 | 4117 |
| Admin/ Secretarial | 8 | 17 | 24 | 24 | 9 | 16 | 2 | 100 | 25455 | 1714 |
| Skilled trades | 3 | 6 | 9 | 13 | 10 | 52 | 8 | 100 | 57222 | 2345 |
| Personal Services | 5 | 12 | 11 | 7 | 13 | 49 | 2 | 100 | 38671 | 2578 |
| Sales & Customer Service | 12 | 25 | 25 | 13 | 5 | 17 | 3 | 100 | 44725 | 1932 |
| Process, plant and machine operatives | 13 | 12 | 16 | 9 | 12 | 38 | 1 | 100 | 32974 | 2667 |
| Elementary occupations | 7 | 17 | 14 | 15 | 12 | 31 | 4 | 100 | 45529 | 3128 |
| All Occupations | 6 | 12 | 21 | 13 | 12 | 32 | 4 | 100 | 357681 | 22433 |

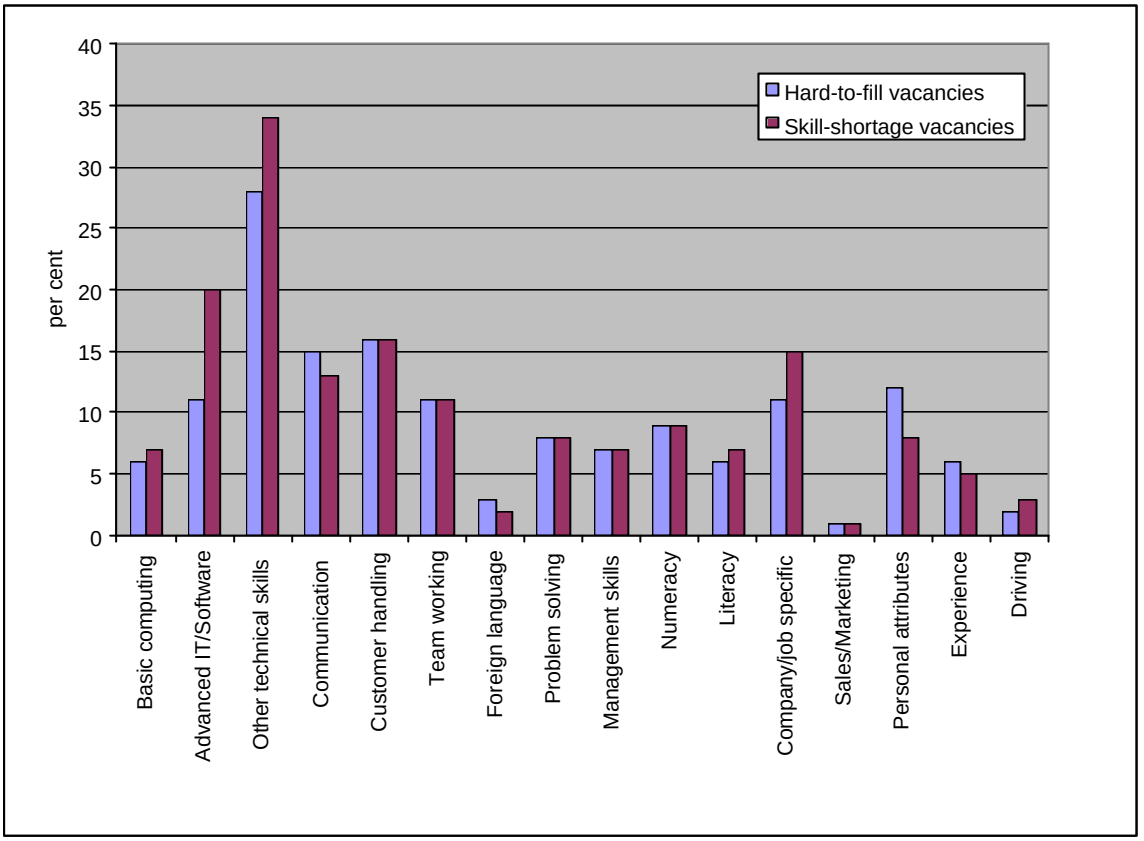
Base: All hard-to-fill vacancies
Source: ESS 2001 (IER/IFF)

## 2.9 Skills sought in connection with skill-shortage vacancies

The employers survey obtained information about the particular skills establishments had found difficult to obtain which resulted in a vacancy persisting. *(see Figure 2.8)*. In relation to both hard-to-fill and skill-shortage vacancies technical and practical skills other than IT were the most frequently mentioned. Again, for both types of recruitment problem, advanced IT skills and customer handling were commonly cited. In addition, company or job specific skills were frequently mentioned in relation to skill-shortage vacancies.

**FIGURE 2.8**

**SKILLS SOUGHT IN CONNECTION WITH HARD-TO-FILL AND SKILL-SHORTAGE VACANCIES**




Base: Vacancies
Source: ESS 2001 (IER/IFF)

The specific skills related to hard-to-fill vacancies and skill-shortage vacancies also vary by occupation (*see Tables 2.18 and 2.19)*. Considering skill-shortage vacancies, the key results to emerge were:

- technical/practical skills other than IT, were sought in connection with a significant number of skill-shortage vacancies, but especially so amongst skilled trades occupations;
- basic computing was reported as a problem mainly for administrative/ secretarial occupations and managers/senior officials;
- advanced IT skills tended to be reported as an important barrier for the recruitment of professionals, associate professionals and, to a lesser degree, administrative/secretarial occupations and managers/senior officials;
- lack of communication skills amongst applicants for personal service and sales/customer service vacancies were comparatively more important than for other occupations;

- customer handling skills were found particularly difficult to obtain from applicants for managers/senior officials, administrative/secretarial, personal service, and sales/customer service occupations;
- team working was less of a skills problem amongst professional and associate professionals but sought more in connection with personal service and sales/customer service occupations and especially managers/senior officials;
- foreign language skills were mentioned rarely in relation to any occupation;
- problem solving was mentioned mainly in relation to managers/senior officials, and administrative/secretarial occupations;
- management skills were mentioned mainly in relation to managers/senior officials;
- a shortage of company/job specific skills was a problem for the recruitment of managers/senior officials and professionals;
- literacy and numeracy were reported mainly in relation to administrative/secretarial and sales/customer service occupations. Numeracy was also a problem in relation to personal service, and managers/senior officials occupations;

The patterns were broadly similar for hard-to-fill vacancies.

Personal attributes, strictly, cannot be considered a skill, although there are likely to be personal characteristics than can be learnt or obtained through training and/or experience. Personal attributes were sought in connection with a substantial minority of hard-to-fill vacancies in skilled trades, personal service, sales/customer service, operative and particularly elementary occupations and suggests the extent of the difficulties employers are experiencing in this regard.

## 2.10 General types of skills sought for skill-shortage vacancies

The substantial proportion of skill-shortage vacancies requiring technical skills reflects strong demand from establishments seeking to fill skilled trades, associate professional and professional vacancies. As *Table 2.20* shows, in these occupational areas, technical skills were often sought without any reference to generic skill requirements. In other occupational areas, however, technical skills were sought in combination with generic skills or were not sought after at all. Establishments with skill-shortage vacancies in administrative/secretarial, sales, personal service or managerial/senior official occupations were more likely to be seeking generic skills.

**TABLE 2.18**

**SKILLS SOUGHT IN CONNECTION WITH HARD-TO-FILL VACANCIES**

column percentages

| Occupations | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled crafts | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Skill | | | | | | | | | | |
| Basic Computing | 15 | 13 | 4 | 20 | 2 | 5 | 3 | 2 | 1 | 6 |
| Advanced IT | 18 | 42 | 25 | 17 | 2 | 2 | 2 | 2 | 1 | 12 |
| Other Technical/ Practical | 31 | 29 | 22 | 21 | 57 | 24 | 10 | 35 | 17 | 28 |
| Communication | 14 | 6 | 13 | 19 | 6 | 21 | 33 | 15 | 18 | 16 |
| Customer Handling | 26 | 4 | 11 | 30 | 6 | 26 | 34 | 12 | 16 | 17 |
| Team Working | 30 | 3 | 10 | 10 | 5 | 17 | 19 | 11 | 10 | 11 |
| Foreign Language | 1 | 3 | 4 | 5 | 2 | 5 | 2 | 1 | 1 | 3 |
| Problem Solving | 26 | 5 | 5 | 18 | 5 | 8 | 12 | 5 | 5 | 8 |
| Management | 24 | 6 | 7 | 9 | 4 | 4 | 14 | 2 | 3 | 7 |
| Numeracy | 20 | 3 | 2 | 13 | 5 | 13 | 22 | 6 | 6 | 9 |
| Literacy | 6 | 1 | 2 | 19 | 4 | 4 | 9 | 9 | 5 | 6 |
| Company specific | 24 | 18 | 11 | 10 | 12 | 11 | 3 | 8 | 7 | 11 |
| Sales/marketing | * | * | 2 | * | 0 | 0 | 2 | 0 | 0 | 1 |
| Personal attributes | 3 | 1 | 3 | 9 | 15 | 15 | 17 | 16 | 22 | 12 |
| Experience | 5 | 4 | 19 | 4 | 6 | 3 | 4 | 5 | 3 | 7 |
| Driving | * | * | * | * | 0 | 1 | 1 | 13 | 1 | 2 |
| DK/NS | 22 | 20 | 18 | 23 | 23 | 34 | 17 | 23 | 34 | 24 |
| Weighted Base | 13,264 | 41,971 | 61,948 | 24,324 | 51,375 | 38,450 | 44,605 | 33,756 | 46,072 | 355,943 |
| Unweighted Base | 587 | 3344 | 4117 | 1714 | 2345 | 2578 | 1932 | 2667 | 3128 | 22433 |

Base: All hard-to-fill vacancies
Source: ESS 2001 (IER/IFF)

**TABLE 2.19**

**SKILLS SOUGHT IN CONNECTION WITH SKILL-SHORTAGE VACANCIES**

column percentages

| Occupations | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled crafts | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Skill | | | | | | | | | | |
| Basic Computing | 15 | 13 | 4 | 20 | 2 | 5 | 3 | 2 | 1 | 6 |
| Advanced IT | 18 | 42 | 25 | 17 | 2 | 2 | 2 | 2 | 1 | 12 |
| Other Technical/ Practical | 31 | 29 | 22 | 21 | 57 | 24 | 10 | 35 | 17 | 28 |
| Communication | 14 | 6 | 13 | 19 | 6 | 21 | 33 | 15 | 18 | 16 |
| Customer Handling | 26 | 4 | 11 | 30 | 6 | 26 | 34 | 12 | 16 | 17 |
| Team Working | 30 | 3 | 10 | 10 | 5 | 17 | 19 | 11 | 10 | 11 |
| Foreign Language | 1 | 3 | 4 | 5 | 2 | 5 | 2 | 1 | 1 | 3 |
| Problem Solving | 26 | 5 | 5 | 18 | 5 | 8 | 12 | 5 | 5 | 8 |
| Management | 24 | 6 | 7 | 9 | 4 | 4 | 14 | 2 | 3 | 7 |
| Numeracy | 20 | 3 | 2 | 13 | 5 | 13 | 22 | 6 | 6 | 9 |
| Literacy | 6 | 1 | 2 | 19 | 4 | 4 | 9 | 9 | 5 | 6 |
| Company specific | 24 | 18 | 11 | 10 | 12 | 11 | 3 | 8 | 7 | 11 |
| Sales/marketing | * | * | 2 | * | 0 | 0 | 2 | 0 | 0 | 1 |
| Personal attributes | 3 | 1 | 3 | 9 | 15 | 15 | 17 | 16 | 22 | 12 |
| Experience | 5 | 4 | 19 | 4 | 6 | 3 | 4 | 5 | 3 | 7 |
| Driving | * | * | * | * | 0 | 1 | 1 | 13 | 1 | 2 |
| DK/NS | 22 | 20 | 18 | 23 | 23 | 34 | 17 | 23 | 34 | 24 |
| Weighted Base | 13,264 | 41,971 | 61,948 | 24,324 | 51,375 | 38,450 | 44,605 | 33,756 | 46,072 | 355,943 |
| Unweighted Base | 587 | 3344 | 4117 | 1714 | 2345 | 2578 | 1932 | 2667 | 3128 | 22433 |

Base: All skill-shortage vacancies
Source: ESS 2001 (IER/IFF)

**TABLE 2.20**

**SKILLS SOUGHT IN RELATION TO SKILL-SHORTAGE VACANCIES**

row percentages

| | Technical skills only | Generic skills only | Technical and generic skills in combination | No particular type of skill | Total | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|
| Managers/senior officials | 15 | 48 | 26 | 11 | 100 | 4894 | 175 |
| Professionals | 30 | 29 | 24 | 17 | 100 | 12265 | 382 |
| Associate professional | 29 | 33 | 19 | 18 | 100 | 13040 | 384 |
| Admin./secretarial | 18 | 46 | 25 | 12 | 100 | 6556 | 133 |
| Skilled trades | 41 | 22 | 21 | 16 | 100 | 6556 | 214 |
| Personal service | 13 | 45 | 17 | 26 | 100 | 14633 | 384 |
| Sales | 20 | 54 | 19 | 6 | 100 | 6227 | 155 |
| Operatives | 34 | 31 | 17 | 18 | 100 | 8285 | 147 |
| Elementary occupations | 19 | 40 | 14 | 27 | 100 | 7778 | 221 |
| | | | | | 100 | 3992 | 159 |
| All | 27 | 35 | 21 | 17 | 100 | 75081 | 2033 |

Base: All Establishments with skill-shortage vacancies
Source: ESS 2001 (IER/IFF)
Note: Technical Skills refer to advanced IT/software skills and other technical/practical skills.
Generic Skills refer to basic computer literacy, communication skills, customer handling skills, team working, problem solving, management skills, numeracy and literacy skills.

## 2.11 Causes of recruitment problems

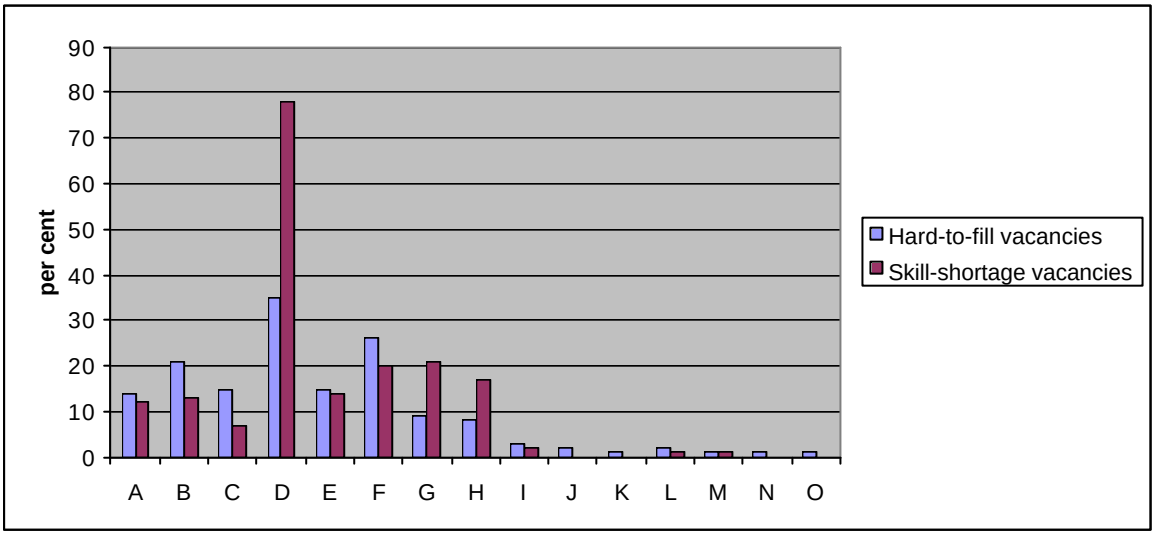
*Hard-to-Fill Vacancies*

The main causes of hard-to-fill vacancies were: 'low number of applicants with skills' (35 per cent of all hard-to-fill vacancies); 'low number of applicants generally' (26 per cent) and; 'not enough people interested' (21 per cent) *(see Figure 2.9)*. 'Company does not pay enough', and 'low number of applicants with motivation' were both attributed to 15 per cent of all hard-to-fill vacancies.

*Skill-Shortage Vacancies*

Due to the definition of skill-shortage vacancies, the main causes of skill-shortage vacancies reported were 'low number of applicants with skills' (78 per cent of all skill-shortage vacancies). A 'lack of work experience' and 'low number of applicants generally' was mentioned in 20 per cent and 21 per cent of cases respectively. However, 'lack of qualifications' as a cause of skill-shortage vacancies was only attributed to 17 per cent of all skill-shortage vacancies *(see Figure 2.9).*

**FIGURE 2.9**
**CAUSES OF HARD-TO-FILL AND SKILL-SHORTAGE VACANCIES**




Base: Hard-to-fill and skill shortage vacancies
Source: ESS 2001 (IER/IFF)

Key:
A - Too much competition
B – Not enough people interested
C – Company does not pay enough
D – Low number of applicants with skills
E – Low number of applicants with motivation etc.
F – Low number of applicants generally
G – Lack of work experience
H – Lack of qualifications
I – Company location
J – Irregular Hours
K – Unattractive conditions of work
L – Career progression
M – Problems with people on benefits
N – Problem with whole industry
O – Other

*(replace with text in letter?)*

## 2.12 Solutions to recruitment problems

Increasing recruitment spend and expanding recruitment channels were solutions adopted to around three-fifths of hard-to-fill and skill-shortage vacancies *(see Table 2.23 and 2.25)*. Increasing salaries was a common response across all occupations but less so for managers/senior officials and associate professional occupations. 'Increase training' and 'redefine existing jobs' were also commonly cited. The former was most commonly cited amongst manager/senior official hard-to-fill vacancies, and the latter amongst professional hard-to-full vacancies.

Overall, differences in response to hard-to-fill vacancies and skill-shortage vacancies were limited *(see Figure 2.10)*.

In general, where a skill-shortage vacancy existed for managers/senior officials, professionals, or administrative/secretarial occupation, **some** solution was more likely to be adopted *(see Table 2.24)*.

**TABLE 2.21**

**CAUSES OF HARD-TO-FILL VACANCIES**

column percentages

| | SOC | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
| Too much competition | 6 | 23 | 25 | 12 | 6 | 18 | 8 | 13 | 13 | 15 |
| Not enough people interested | 16 | 10 | 17 | 9 | 16 | 34 | 27 | 24 | 27 | 21 |
| Company does not pay enough | 10 | 9 | 11 | 24 | 13 | 18 | 21 | 16 | 19 | 15 |
| Low number of applicants with skills | 25 | 62 | 40 | 40 | 44 | 28 | 17 | 33 | 14 | 34 |
| Low number of applicants with motivation | 12 | 3 | 7 | 26 | 14 | 21 | 19 | 16 | 24 | 15 |
| Low number of applicants generally | 16 | 20 | 21 | 20 | 34 | 37 | 17 | 26 | 31 | 26 |
| Lack of work experience | 30 | 20 | 8 | 7 | 12 | 6 | 5 | 9 | 4 | 9 |
| Lack of qualifications | 20 | 12 | 6 | 4 | 9 | 8 | 13 | 6 | 2 | 8 |
| Company location | 2 | 2 | 1 | 2 | 6 | 3 | 2 | 2 | 5 | 3 |
| Irregular hours | * | * | 1 | 1 | * | 1 | 2 | 4 | 6 | 2 |
| Unattractive conditions of work | 0 | * | 3 | 1 | 4 | * | 2 | 1 | 1 | 2 |
| Poor career progression | 1 | 1 | 1 | 2 | 2 | 4 | 2 | 2 | 4 | 2 |
| Problems with people on benefits | * | 1 | 1 | * | * | 6 | 1 | 2 | 1 | 1 |
| Problem with industry | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | * | 1 |
| DK/NS | 3 | 1 | 1 | 9 | 4 | 2 | 2 | 2 | 1 | 2 |
| Other | * | 2 | * | 1 | 1 | * | 1 | 1 | 1 | 1 |
| Weighted Base | 13,264 | 41,971 | 61,948 | 24,324 | 51,375 | 38,450 | 44,605 | 33,756 | 46,072 | 355,943 |
| Unweighted Base | 587 | 3344 | 4117 | 1714 | 2345 | 2578 | 1932 | 2667 | 3128 | 22433 |

Base: All hard-to-fill vacancies
Source: ESS 2001 (IER/IFF)

**TABLE 2.22**

**CAUSES OF SKILL-SHORTAGE VACANCIES**

column percentages

| | SOC | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
| Too much competition | 5 | 24 | 8 | 13 | 4 | 26 | 4 | 9 | 20 | 12 |
| Not enough people interested | 4 | 4 | 8 | 5 | 18 | 35 | 12 | 20 | 29 | 14 |
| Company does not pay enough | 4 | 6 | 6 | 18 | 9 | 5 | 2 | 5 | 12 | 7 |
| Low number of applicants with skills | 40 | 87 | 86 | 90 | 82 | 73 | 51 | 75 | 78 | 77 |
| Low number of applicants with motivation | 12 | 3 | 5 | 34 | 16 | 29 | 21 | 14 | 30 | 15 |
| Low number of applicants generally | 10 | 13 | 17 | 26 | 25 | 46 | 9 | 17 | 27 | 20 |
| Lack of work experience | 48 | 27 | 16 | 15 | 23 | 15 | 16 | 21 | 23 | 22 |
| Lack of qualifications | 32 | 16 | 12 | 8 | 16 | 20 | 41 | 14 | 12 | 18 |
| Company location | 1 | 1 | * | 0 | 9 | * | * | 1 | 1 | 2 |
| Irregular hours | 0 | 0 | * | 0 | * | * | 0 | * | 2 | * |
| Unattractive conditions of work | 0 | * | 0 | * | * | 0 | 0 | 0 | 0 | * |
| Poor career progression | 1 | * | * | 3 | 2 | 2 | 1 | 3 | 0 | 1 |
| Problems with people on benefits | * | * | 0 | * | * | 0 | 0 | 1 | 3 | * |
| Problem with industry | 0 | 0 | 1 | 0 | * | * | 0 | 1 | 0 | * |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | * | 1 | 0 | * |
| Weighted Base | 8,209 | 29,959 | 29,151 | 10,708 | 27,396 | 14,833 | 14,572 | 14,645 | 8,460 | 158,056 |
| Unweighted Base | 327 | 1993 | 2036 | 896 | 1188 | 760 | 533 | 1077 | 537 | 9357 |

Base: All skill-shortage vacancies
Source: ESS 2001 (IER/IFF)

**TABLE 2.23**

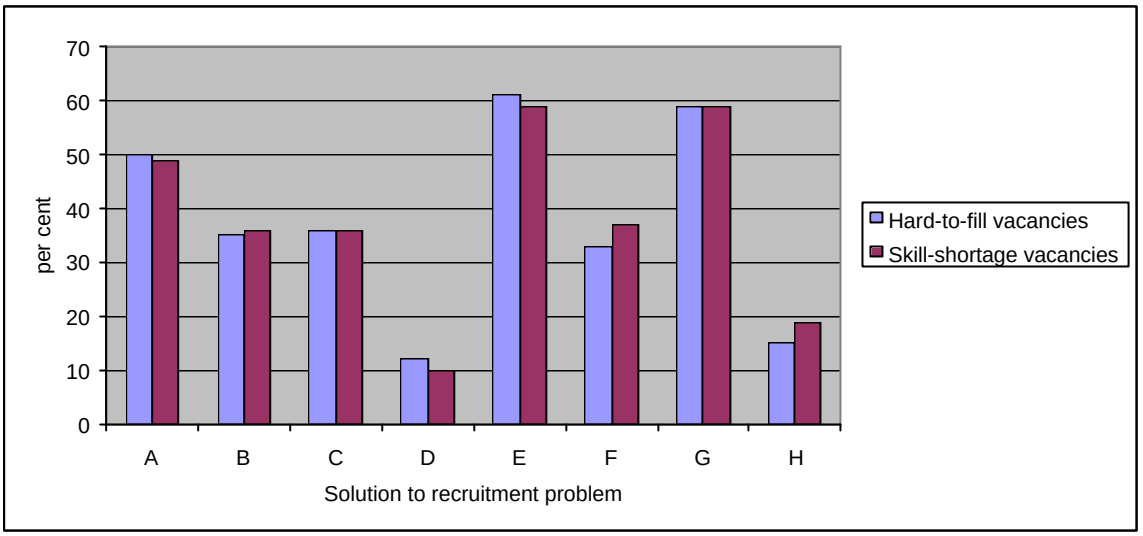
**SOLUTIONS ADOPTED TO HARD-TO-FILL VACANCIES BY OCCUPATION**

column percentages

| | SOC | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
| Increase salaries | 34 | 68 | 39 | 52 | 57 | 50 | 45 | 55 | 52 | 51 |
| Increase training | 46 | 32 | 34 | 37 | 39 | 44 | 26 | 29 | 37 | 35 |
| Redefine existing jobs | 45 | 50 | 35 | 44 | 33 | 36 | 24 | 31 | 41 | 37 |
| Use new technology as substitute | 22 | 12 | 8 | 21 | 8 | 8 | 15 | 14 | 11 | 12 |
| Increase advertising/ Recruitment spend | 60 | 74 | 58 | 68 | 45 | 70 | 66 | 59 | 63 | 62 |
| Increase / expand trainee schemes | 43 | 41 | 30 | 40 | 37 | 39 | 20 | 36 | 28 | 33 |
| Expand recruitment channels | 75 | 74 | 59 | 62 | 51 | 54 | 60 | 62 | 61 | 61 |
| None of the above | 4 | 2 | 32 | 9 | 8 | 12 | 16 | 18 | 7 | 14 |
| DK | 2 | * | * | * | 12 | 3 | * | * | * | 2 |
| Weighted Base | 13,264 | 41,971 | 61,948 | 24,324 | 51,375 | 38,450 | 44,605 | 33,756 | 46,072 | 355,943 |
| Unweighted Base | 587 | 3344 | 4117 | 1714 | 2345 | 2578 | 1932 | 2667 | 3128 | 22433 |

Base: All hard-to-fill vacancies
Source: ESS 2001 (IER/IFF)

**FIGURE 2.10**
**SOLUTIONS TO RECRUITMENT PROBLEMS**




Base: Vacancies
Source: ESS 2001 (IER/IFF)

Key
A – Increase salaries
B – Increase training
C – Redefine existing jobs
D – Use new technology as substitute
E – Increase recruitment spend
F – Increase/expand trainee schemes
G – Expand recruitment channels
H – None of the above

**TABLE 2.24**

**SOLUTIONS ADOPTED TO SKILL-SHORTAGE VACANCIES BY OCCUPATION**

column percentages

| | SOC | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
| Increase salaries | 32 | 73 | 34 | 53 | 63 | 41 | 34 | 53 | 38 | 50 |
| Increase training | 44 | 29 | 36 | 37 | 47 | 36 | 34 | 40 | 34 | 37 |
| Redefine existing jobs | 48 | 50 | 39 | 53 | 37 | 25 | 23 | 28 | 33 | 38 |
| Use new technology as substitute | 26 | 10 | 7 | 19 | 10 | 4 | 10 | 17 | 8 | 11 |
| Increase advertising/ Recruitment spend | 62 | 70 | 59 | 81 | 44 | 49 | 63 | 54 | 71 | 60 |
| Increase / expand trainee schemes | 39 | 41 | 36 | 45 | 42 | 49 | 19 | 39 | 28 | 38 |
| Expand recruitment channels | 87 | 73 | 57 | 70 | 58 | 38 | 53 | 54 | 62 | 61 |
| None of the above | 3 | 1 | 34 | 6 | 13 | 22 | 25 | 28 | 6 | 17 |
| Dk | 1 | * | * | 0 | 0 | 8 | 0 | 0 | * | 1 |
| Weighted Base | 8,209 | 29,959 | 29,151 | 10,708 | 27,396 | 14,833 | 14,572 | 14,645 | 8,460 | 158,056 |
| Unweighted Base | 327 | 1993 | 2036 | 896 | 1188 | 760 | 533 | 1077 | 537 | 9357 |

Base: All skill-shortage vacancies
Source: ESS 2001 (IER/IFF)

## 2.13 Conclusions

Overall, around 14 per cent of establishments reported vacancies - representing around 766 thousand vacancies - and around 4 per cent of establishments reported skill-shortage vacancies, representing around 159 thousand vacancies. The proportion of establishments reporting vacancies, hard-to-fill vacancies, or skill-shortage vacancies rises quite sharply with the number of employed. For instance, 3 per cent of establishments with 1-4 employees reported skill-shortage vacancies compared to 15 per cent with 500-999 employees. Yet because the smallest establishments are so numerous this is where many of the vacancies (29 per cent of all vacancies), hard-to-fill vacancies (34 per cent), and skill-shortage vacancies (40 per cent) occur.

Additionally, the density of skill shortage vacancies suggests that this is a worse problem for smaller employers, with skill shortage vacancies accounting for 3% of employment in all establishments employing fewer than 5 employees compared to 0.8% overall. So, whilst larger employers might be more prone to report vacancies, a natural function of their size, it is for smaller employers that, arguably, a greater problem exists as skill shortage vacancies represent a higher proportion of employment.

Reflecting perhaps, the occupational spread of vacancies, skill sought were primarily technical/practical skill other than IT and Advanced IT. Surprisingly perhaps, employers are less likely to adopt any solution for skill shortage vacancies experienced among associate professional and skilled trade occupations, though these are the areas with higher proportion of such skill deficiencies. In response to such vacancies employers were most likely to increase recruitment spend or expand recruitment channels, though it is debateable as to what extent this might be a successful ploy in a tight labour market.

# 3 SKILLS GAPS

## 3.1 Skill proficiency

The previous chapter has established the extent and nature of skill-related recruitment difficulties. This chapter now considers the evidence from the survey on skill deficiencies among the existing employees of private firms and public sector organisations.

ESS2001 measured internal skill gaps by exploring the extent to which employers perceived their employees' current skills as insufficient to meet current business objectives. Respondents were asked:

> "What proportion of your existing staff at this establishment in [a particular occupation] would you regard as being fully proficient at their current job: all, nearly all, over half, some but under half, very few, none?".

Research undertaken during the course of ESS1999 provides an indication of the proportion of staff that lacked full proficiency. This suggested median scores of 85 per cent fully proficient[1] in response to the 'nearly all' response and 65 per cent fully proficient[2] in respect of the 'over half' response. By combining together the responses to the questions asked about the proportion of staff in each occupation who were fully proficient and the supplementary information which quantified the qualitative responses to this question and the numbers employed in each category, an overall estimate of the number of employees who were not fully proficient has been derived.

On this basis, it is estimated that there were some 1.9 million employees in 2001 who were less than fully proficient in their jobs. Though there is no additional information on the degree of their lack of proficiency, this gives some indication of the potential scale of such skill deficiencies compared with external recruitment problems. This compares with the estimates in Chapter 2 that there were around three quarters of a million vacancies, in total, of which some 159 thousand were skill-shortage vacancies.

Of course, some proficiency shortfalls are to be expected as new employees find their feet or existing staff adjust to new situations. The main focus of attention here is on establishments where a significant proportion of the workforce was regarded as lacking proficiency.

## 3.2 Definitions and measures of internal skill gaps

Using the answers to the questions on skill proficiency it is possible to derive various alternative measures of internal skill gaps.

One is ***establishment based*** and provides an estimate of the total number of establishments reporting that fewer than 'all' or 'nearly' all existing staff were fully proficient in any occupation.

A second measure is ***employee based*** and is an overall estimate of the number of employees who are less than fully proficient. This is based on applying estimates of the proportions of employment in each occupational category regarded as less than fully proficient and summing over all occupations.

The second measure effectively weights the number of establishments with problems by employment, as well as serving as an indicator of the proportion of employees who are less

1 Inter-quartile range 80 per cent – 90 per cent.

2 Inter-quartile range 60 – 70 per cent.

than fully proficient. This provides a measure more directly comparable to the scale of external recruitment difficulties as discussed in Chapter 2.

It is possible to derive two definitions of skill gaps:

- *a **broad definition*** that includes all establishments that reported that at least *some* of their staff lacked full proficiency (*ie.* where employers reported 'nearly all', 'over half', 'some but under half' or 'very few' staff fully proficient in their job); and
- a second, more ***specific measure***, that includes only those establishments where a significant proportion of the workforce was reported as lacking proficiency, such that an internal skill gaps is defined as existing where lack of full proficiency (as perceived by employers) typically involved *a third or more* of staff in at least one occupational area (*ie.* where an employer reported 'over half', 'some but under half' or 'very few' staff were fully proficient.

Where internal skill gaps are referred to in the text they refer to the second, more specific definition of skill gaps. It is this measure which is followed up in the survey with further questions on the cause, characteristics, reactions and solutions to internal skill gaps and which is explored in this chapter and in chapter 4. Where appropriate, commentary is also provided on the broader, less specific, measure.

## 3.3 An initial estimate of the extent of internal skill gaps

Using the broad measure of skill gaps 23 per cent per cent of establishments reported that at least some staff were not fully proficient at their jobs. Using the more specific definition 7 per cent of employers reported an internal skills gap (*see Table 3.1*).

**TABLE 3.1**
**INITIAL ESTIMATE OF SKILL GAPS**

| | Skill gap measure | | | |
|---|---|---|---|---|
| | Establishment based | % of establishments | Employee based | % of employees |
| **ESS2001** | | | | |
| Specific measure | 141,525 | 7 | 802,986 | 4 |
| Broad measure | 470,091 | 23 | 1,909,262 | 9 |
| **ESS2001 using same base as ESS1999** | | | | |
| Specific measure | 88,317 | 16 | 676,850 | 4 |
| Broad measure | 280,854 | 50 | 1,816,751 | 10 |
| **ESS1999** | | | | |
| Specific measure | 104,985 | 20 | 860,290 | 5 |
| Broad measure | 307,016 | 56 | 1,942,187 | 11 |

Base: All establishments / internal skill gaps
Source: ESS1999 / 2001 (IER/IFF)

The proportion of establishments reporting skills gaps (at both broad and more specific levels) has decreased significantly since 1999, However this change is partly due to the broader scope of the sample. Excluding the establishments employing 1-4 employees and agriculture, 16% of establishments reported internal skill gaps, a reduction of 4% from 1999. In terms of the numbers of employees not fully proficient and the number of internal skill gaps there has been a proportionate increase in the skills base of the workforce, with a fall in the absolute number skills gaps from to 860 thousand in 1999 to 802 thousand in 2001.

The proportions of establishments reporting that all staff were fully proficient varied by occupation, ranging from 69 per cent (in the case of establishments employing sales / customer service staff) to 83 per cent (of those employing managers/senior officials) *(see Table 3.2)*. The proportions of establishments reporting skill gaps ranged from approximately 4 per cent of those employing professionals to 8 per cent of those employing personal services, sales/customer service, and elementary occupations *(see Table 3.2, column 3)*. Skill gaps were reported least in small establishments (employing fewer than 5 people) and in the agriculture, construction, and other services sectors. The industries most affected were manufacturing, financial services, and public administration *(see Table 3.3)*.

**TABLE 3.2**

**INTERNAL SKILL GAPS AND EMPLOYEE PROFICIENCY LEVELS, ANALYSED BY OCCUPATION**

| | All staff fully proficient at current jobs (a) | 'Nearly all' staff proficient at current jobs (a) | 'Over half' or fewer staff proficient at current jobs (a, b) (Internal skill gaps) | Don't know (a) | Total | % of establishments reporting employment within occupation | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|---|
| Managers/senior officials | 83 | 12 | 5 | 1 | 100 | 60 | 1,236,686 | 24,138 |
| Professional | 80 | 16 | 4 | * | 100 | 16 | 321,115 | 10,597 |
| Associate professional | 76 | 17 | 7 | 1 | 100 | 10 | 212,386 | 7,449 |
| Admin/secretarial | 79 | 15 | 6 | * | 100 | 31 | 648,321 | 18,256 |
| Skilled trades | 76 | 18 | 5 | 1 | 100 | 17 | 351,992 | 9,089 |
| Personal service | 73 | 18 | 9 | 1 | 100 | 10 | 202,058 | 7,132 |
| Sales/customer service | 69 | 23 | 8 | * | 100 | 18 | 362,768 | 8,441 |
| Operatives | 71 | 22 | 7 | 1 | 100 | 8 | 158,031 | 5,845 |
| Elementary occupations | 75 | 18 | 7 | * | 100 | 12 | 252,153 | 8,198 |

| | All staff fully proficient at current jobs (a) | 'Nearly all' staff proficient at current jobs (a) | 'Over half' or fewer staff proficient at current jobs (a, b) (Internal skill gaps) | Don't know (a) | Total | % of establishments reporting employment within occupation | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|---|
| Managers/senior officials | 83 | 12 | 5 | 1 | 100 | 60 | 1,236,686 | 24,138 |
| Professional | 80 | 16 | 4 | * | 100 | 16 | 321,115 | 10,597 |
| Associate professional | 76 | 17 | 7 | 1 | 100 | 10 | 212,386 | 7,449 |
| Admin/secretarial | 79 | 15 | 6 | * | 100 | 31 | 648,321 | 18,256 |
| Skilled trades | 76 | 18 | 5 | 1 | 100 | 17 | 351,992 | 9,089 |
| Personal service | 73 | 18 | 9 | 1 | 100 | 10 | 202,058 | 7,132 |
| Sales/customer service | 69 | 23 | 8 | * | 100 | 18 | 362,768 | 8,441 |
| Operatives | 71 | 22 | 7 | 1 | 100 | 8 | 158,031 | 5,845 |
| Elementary occupations | 75 | 18 | 7 | * | 100 | 12 | 252,153 | 8,198 |


| | All staff fully proficient at current jobs (a) | 'Nearly all' staff proficient at current jobs (a) | 'Over half' or fewer staff proficient at current jobs (a, b) (Internal skill gaps) | Don't know (a) | Total | % of establishments reporting employment within occupation | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|---|
| Managers/senior officials | 83 | 12 | 5 | 1 | 100 | 60 | 1,236,686 | 24,138 |
| Professional | 80 | 16 | 4 | * | 100 | 16 | 321,115 | 10,597 |
| Associate professional | 76 | 17 | 7 | 1 | 100 | 10 | 212,386 | 7,449 |
| Admin/secretarial | 79 | 15 | 6 | * | 100 | 31 | 648,321 | 18,256 |
| Skilled trades | 76 | 18 | 5 | 1 | 100 | 17 | 351,992 | 9,089 |
| Personal service | 73 | 18 | 9 | 1 | 100 | 10 | 202,058 | 7,132 |
| Sales/customer service | 69 | 23 | 8 | * | 100 | 18 | 362,768 | 8,441 |
| Operatives | 71 | 22 | 7 | 1 | 100 | 8 | 158,031 | 5,845 |
| Elementary occupations | 75 | 18 | 7 | * | 100 | 12 | 252,153 | 8,198 |


Source: ESS 2001 (IER/IFF)

Base: All establishments employing at least one person in respective occupations

Note: (a) The survey question on this topic asked respondents: 'What proportion of your existing staff at this establishment in [each occupation] would you regard as being fully proficient at their current job: all, nearly all, over half, some but under half, very few?'.

(b) Internal skill gaps are defined as the sum of the percentages responding that over half or fewer staff were proficient in their current jobs.

**TABLE 3.3**

**INCIDENCE OF INTERNAL SKILL GAPS, ANALYSED BY EMPLOYEE SIZE-GROUP AND SECTOR**

| | Percent of establishments reporting internal skills gap (a) |
|---|---|
| By size of establishment: (number of employees) | |
| 1-4 | 4 |
| 5-24 | 14 |
| 25-49 | 20 |
| 50-99 | 22 |
| 100-199 | 22 |
| 200-499 | 24 |
| 500-999 | 26 |
| 1000-plus | 23 |
| | |
| All establishments | 7 |
| By sector (b): | |
| Agriculture | 6 |
| Manufacturing | 9 |
| Construction | 5 |
| Wholesale & Retail | 7 |
| Hotels & Restaurants | 8 |
| Transport & Communications | 9 |
| Finance | 10 |
| Business Services | 7 |
| Public Administration | 11 |
| Education | 8 |
| Health & Social Care | 9 |
| Other Services | 5 |
| | |
| All Industries and Services | 7 |

Source: ESS 2001 (IER/IFF)

Base: All establishments

(a) Refers to establishments where 'over half' or fewer of staff were assessed as being fully proficient at their current jobs in at least one occupation (see Note (a) and (b) to *Table 3.1*).

(b) "Mining & Quarrying" and "Electricity & Water" are not shown due to small cell sizes

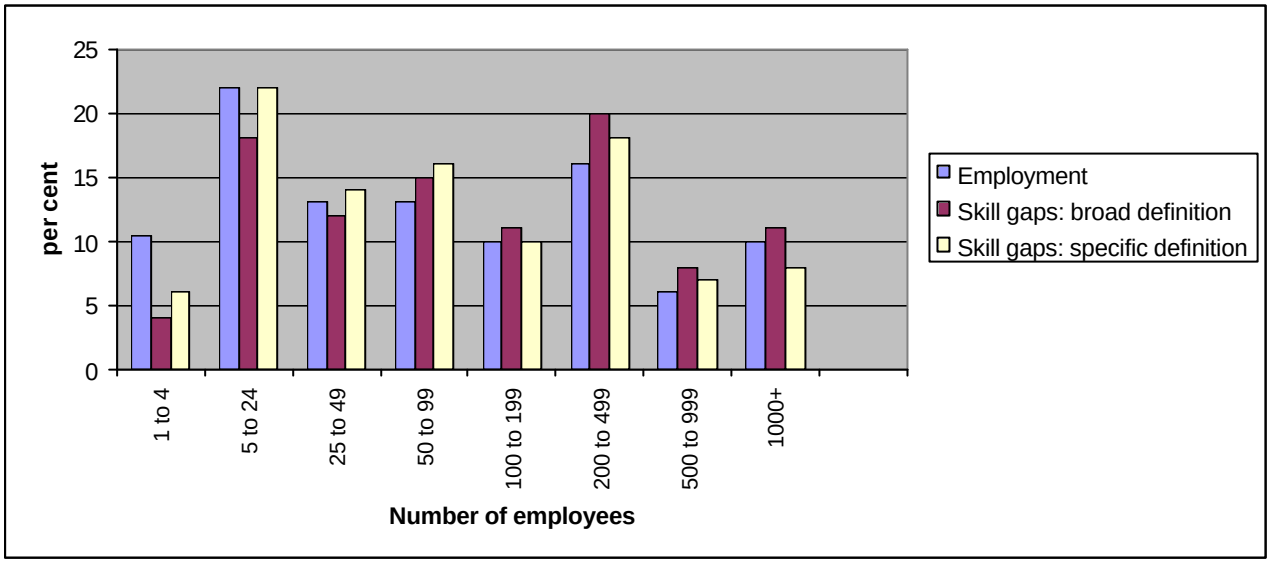
## 3.4 The distribution of internal skill gaps

In order to facilitate a comparison with the overall scale of recruitment problems (the number of hard-to-fill vacancies or skill-shortage vacancies) the analysis in the next few sections of this chapter uses the employee based measure of internal skill gaps.

### *Analysis by size of establishment*

The distribution of internal skill gaps by size of establishment is presented below *(see Figure 3.1)*. It is apparent that the smallest establishments have a disproportionately small share of skill gaps compared to their share of employment.

**FIGURE 3.1**
**INTERNAL SKILL GAPS AND SIZE OF ESTABLISHMENT**




Base: All establishments
Source: ESS 2001 (IER/IFF)

*Table 3.4a* shows how internal skill gaps are distributed by occupation for establishments of different sizes. There are differences in the occupational patterns for establishments of different sizes.

The smallest establishments (i.e. those employing fewer than 5 people) reported most problems among managerial / senior officials, administrative/clerical and sales / customer service occupations.

Administrative occupations are also the most prominent internal skills problem for the largest establishments (1000+ employees).

Establishments employing between 100 and 499 employees experience most internal deficiencies among their operative employees, who account for around a quarter of their skill gaps.

**TABLE 3.4A**

**OCCUPATIONAL PATTERNS OF INTERNAL SKILL GAPS BY SIZE OF ESTABLISHMENT**

column percentages

| | Number of employees in establishment | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **1-4** | **5-24** | **25-49** | **50-99** | **100-199** | **200-499** | **500-999** | **1000+** | **Total** |
| Occupation | | | | | | | | | |
| Managers/senior officials | 23 | 14 | 12 | 9 | 13 | 12 | 11 | 15 | 13 |
| Professionals | 6 | 5 | 4 | 5 | 5 | 7 | 4 | 17 | 6 |
| Associate professional | 7 | 7 | 6 | 7 | 4 | 5 | 7 | 6 | 6 |
| Administrative/ Secretarial | 20 | 11 | 11 | 9 | 12 | 13 | 14 | 22 | 13 |
| Skilled trades | 8 | 10 | 10 | 7 | 7 | 6 | 9 | 4 | 8 |
| Personal Service | 14 | 12 | 15 | 14 | 8 | 3 | 7 | 9 | 10 |
| Sales/customer service | 15 | 20 | 16 | 16 | 13 | 15 | 8 | 9 | 16 |
| Operatives | 1 | 8 | 12 | 19 | 24 | 25 | 27 | 4 | 15 |
| Elementary occupations | 7 | 12 | 14 | 13 | 14 | 14 | 14 | 14 | 13 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| **Total skill gaps as a % of employment** | **2.2** | **3.8** | **4.3** | **4.7** | **3.9** | **4.4** | **4.4** | **3.3** | **3.9** |
| Weighted Base | 49,373 | 175,080 | 110,748 | 126,862 | 80,509 | 141,805 | 54,843 | 64,844 | 802,986 |
| Unweighted Base | 253 | 4,036 | 9,459 | 10,680 | 13,898 | 24,092 | 12,868 | 16,019 | 91,305 |

Source: ESS2001 (IER/IFF)
Base: Internal Skill Gaps: employee based measure (where establishment employs a person in a given occupation)
Note: Percentage of all skill gaps for a particular size of establishment.

**TABLE 3.4B**
**DISTRIBUTION OF OCCUPATIONAL SKILL GAPS BY SIZE OF ESTABLISHMENT**

row percentages

| | Number of employees in establishment | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1-4** | **5-24** | **25-49** | **50-99** | **100-199** | **200-499** | **500-999** | **1000+** | **Total** | **Shares of total employment %** | **Weighted Base** | **Unweighted Base** |
| Occupation | | | | | | | | | | | | |
| Managers/senior officials | 11 | 24 | 13 | 11 | 10 | 17 | 6 | 9 | 100 | 3.3 | 104,170 | 11,395 |
| Professionals | 6 | 18 | 9 | 12 | 9 | 19 | 5 | 22 | 100 | 1.9 | 50,314 | 6,449 |
| Associate professional | 8 | 24 | 13 | 18 | 6 | 15 | 8 | 9 | 100 | 2.8 | 47,981 | 4,787 |
| Administrative/ Secretarial | 10 | 19 | 12 | 11 | 10 | 18 | 8 | 14 | 100 | 3.3 | 104,226 | 11,255 |
| Skilled trades | 7 | 27 | 18 | 15 | 9 | 14 | 8 | 4 | 100 | 3.3 | 62,523 | 6,161 |
| Personal Service | 8 | 26 | 20 | 21 | 8 | 6 | 5 | 7 | 100 | 5.5 | 82,225 | 9,490 |
| Sales/customer service | 6 | 29 | 15 | 17 | 8 | 17 | 4 | 5 | 100 | 4.8 | 124,326 | 11,568 |
| Operatives | 0 | 11 | 11 | 19 | 16 | 28 | 12 | 2 | 100 | 5.7 | 124,056 | 17,011 |
| Elementary occupations | 3 | 21 | 15 | 16 | 11 | 19 | 7 | 9 | 100 | 6.1 | 104,244 | 13,191 |

Source: ESS2001 (IER/IFF)
Base: Internal Skill Gaps: employee based measure

**TABLE 3.5A**

**OCCUPATIONAL PATTERN OF INTERNAL SKILL GAPS BY INDUSTRIAL SECTOR**

column percentages

| | Agriculture | Manu'ring | Const'tion | Wholsale & Retail | Hotels & Rest'nts | Transport & Comms | Finance | Business Services | Public Admin | Education | Health & Social Care | Other Services | All industries |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Occupation | | | | | | | | | | | | | |
| Managers/senior officials | 15 | 12 | 19 | 11 | 10 | 16 | 11 | 17 | 13 | 14 | 12 | 12 | 13 |
| Professionals | 3 | 4 | 8 | 1 | 2 | 3 | 12 | 11 | 16 | 23 | 7 | 6 | 6 |
| Associate professional | 1 | 5 | 3 | 2 | 1 | 1 | 6 | 10 | 12 | 13 | 16 | 6 | 6 |
| Administrative/ Secretarial | 6 | 8 | 8 | 7 | 2 | 11 | 40 | 21 | 35 | 15 | 11 | 11 | 13 |
| Skilled trades | 22 | 11 | 36 | 6 | 3 | 4 | 1 | 7 | 7 | 4 | 4 | 7 | 8 |
| Personal Service | 12 | * | 2 | 4 | 44 | 2 | 1 | 3 | 6 | 14 | 37 | 24 | 10 |
| Sales/customer service | * | 5 | 2 | 49 | 6 | 15 | 26 | 9 | 3 | 2 | 3 | 11 | 15 |
| Operatives | 8 | 48 | 9 | 6 | 1 | 30 | 1 | 7 | 2 | 2 | 1 | 4 | 15 |
| Elementary occupations | 32 | 7 | 14 | 13 | 31 | 19 | 1 | 15 | 5 | 14 | 8 | 19 | 13 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| **Total skill gaps of employment** | **3.4** | **4.8** | **3.5** | **4.4** | **6.0** | **3.4** | **3.8** | **3.6** | **4.1** | **1.6** | **2.9** | **3.5** | **3.9** |
| Weighted Base | 8,219 | 177,762 | 30,978 | 158,974 | 69,648 | 41,532 | 35,463 | 111,806 | 48,865 | 23,433 | 62,729 | 34,655 | 804,063 |
| Unweighted Base | 192 | 24154 | 2872 | 15314 | 8855 | 4693 | 2912 | 10198 | 6710 | 2301 | 7606 | 4974 | 91305 |

Source: ESS 2001 (IER/IFF)
Base: Internal Skill Gaps: employee based measure

**TABLE 3.5B**

**DISTRIBUTION OF INTERNAL SKILL GAPS BY INDUSTRIAL SECTOR**

row percentages

| | Agriculture | Manu'ring | Const'tion | Wholsale & Retail | Hotels & Rest'nts | Transport & Comms | Finance | Business Services | Public Admin | Education | Health & Social Care | Other Services | Total | **Shares of total employment** | **Weighted Base** | **Unweighted Base** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Occupation | | | | | | | | | | | | | | | | |
| Managers/senior officials | 1 | 21 | 6 | 17 | 7 | 6 | 4 | 19 | 6 | 3 | 7 | 4 | 100 | 3.3 | 104,170 | 11395 |
| Professionals | * | 14 | 5 | 4 | 2 | 2 | 9 | 24 | 16 | 11 | 8 | 4 | 100 | 1.9 | 50,314 | 6449 |
| Associate professional | * | 18 | 2 | 7 | 2 | 1 | 4 | 23 | 13 | 7 | 20 | 4 | 100 | 2.8 | 47,981 | 4787 |
| Administrative/ Secretarial | 1 | 14 | 2 | 11 | 2 | 4 | 14 | 23 | 16 | 3 | 7 | 4 | 100 | 3.3 | 104,226 | 11255 |
| Skilled trades | 3 | 31 | 18 | 15 | 3 | 2 | 1 | 13 | 5 | 1 | 5 | 4 | 100 | 3.3 | 62,523 | 6161 |
| Personal Service | 1 | 1 | 1 | 8 | 38 | 1 | 1 | 4 | 4 | 4 | 29 | 10 | 100 | 5.5 | 82,225 | 9490 |
| Sales/customer service | * | 7 | 1 | 62 | 3 | 5 | 7 | 8 | 1 | * | 1 | 3 | 100 | 4.8 | 124,326 | 11568 |
| Operatives | 1 | 69 | 2 | 8 | * | 10 | * | 7 | 1 | * | 1 | 1 | 100 | 5.7 | 124,056 | 17011 |
| Elementary occupations | 3 | 12 | 4 | 20 | 21 | 8 | * | 16 | 3 | 3 | 5 | 6 | 100 | 6.1 | 104,244 | 13191 |

Source: ESS 2001 (IER/IFF)
Base: Internal Skill Gaps: employee based measure

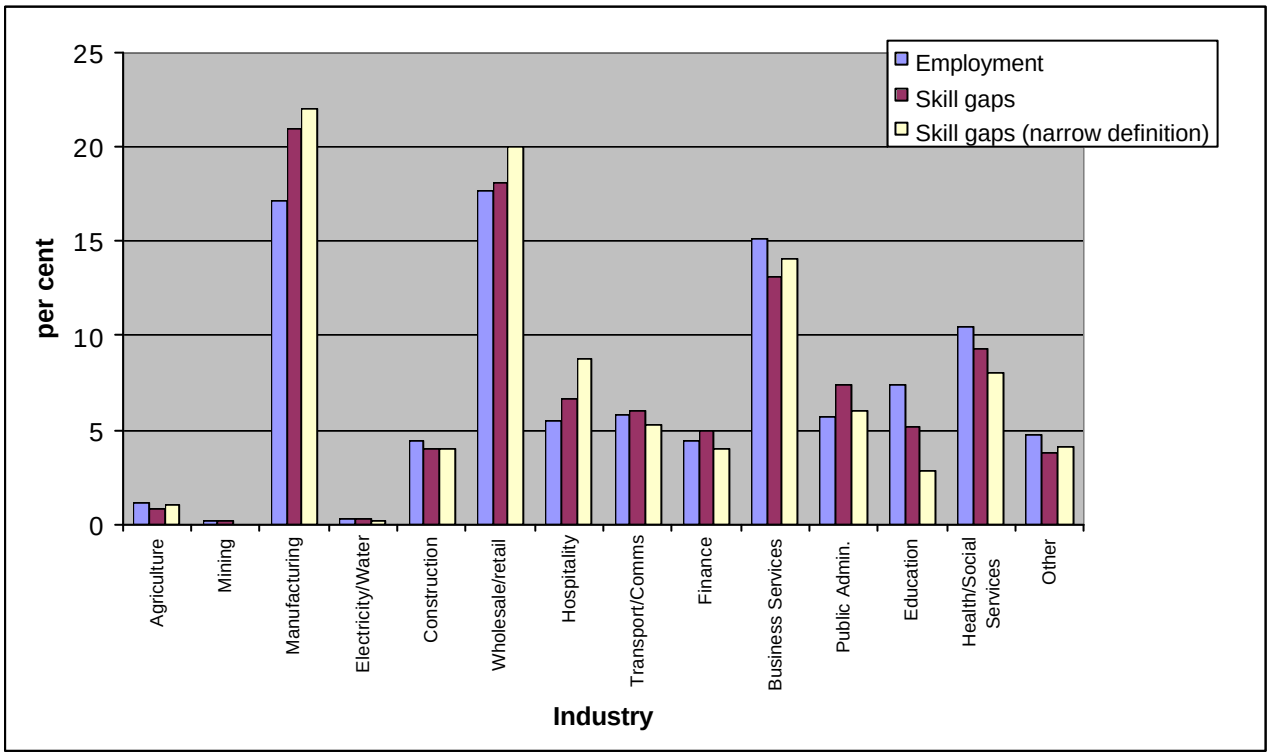
*Analysis by sector*

The distribution of internal skill gaps by sector is presented in *Figure 3.2*. Overall, there were heavy concentrations of skill gaps in manufacturing, wholesale/retail, and business services. A comparison is made with the overall distribution of employment. Differences are limited, but in manufacturing and hotels and restaurants, and to a slightly lesser extent wholesale/retail there appears to be a disproportionate share of such skill gaps.

*Table 3.5A* shows how internal skill gaps break down by occupation within sector. This largely reflects the size of total employment in the sector. This table also illustrates variations in the occupational pattern of internal skill gaps by sector. Not surprisingly, this tends to reflect the occupational concentrations of employment by sector. In hotels and restaurants, for example, the bulk of less than fully proficient employees fall into the personal service occupation group (45 per cent). In manufacturing, skilled trades occupations (11 per cent) and operatives (48 per cent) are the most significant categories. Less than fully proficient employees in administrative/secretarial occupations are important in a number of sectors: financial intermediation (40 per cent), and public administration (35 per cent), being the most notable.

*Table 3.5B* shows how the skill gaps for a particular occupation are distributed across different sectors.

**FIGURE 3.2**
**INTERNAL SKILL GAPS AND INDUSTRIAL SECTOR**

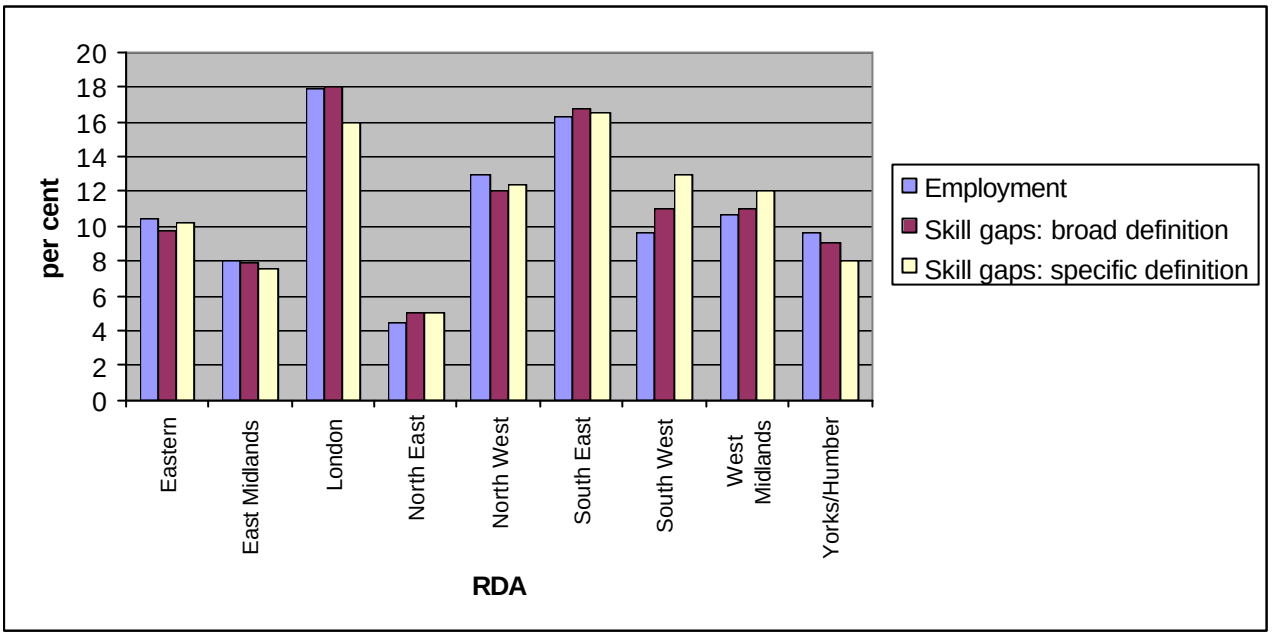



Base: All establishments
Source: ESS 2001 (IER/IFF)

*Analysis by region*

The regional distribution of internal skill gaps largely follows the pattern of distribution for employment as a whole *(see Figure 3.3 and Tables 3.6 and 3.7*). The number of skill gaps expressed as a percentage of employment does not vary much across regions (with the exception of the South West where skill gaps represent a higher proportion of employment than any other region). In terms of the numbers of gaps reported, there is some evidence of a divide between London and the South East (which account for more than a third of all skill gaps), and the rest of the country.

**FIGURE 3.3**
**INTERNAL SKILL GAPS BY REGION**




Base: Internal skill gaps
Source: ESS2001 (IER/IFF)

The different shares across occupational categories also tend to reflect the different occupational structures in the regions *(see Table 3.6)*. For example, in London sales/customer service occupations, administrative/secretarial, and managers/senior officials are the largest categories. In the East and West Midlands the shares of operatives occupations is significantly above the average.

*Table 3.7* illustrates differences between occupational categories in the regional distribution of the number of less than fully proficient employees.

**TABLE 3.6**
**OCCUPATIONAL PATTERNS OF INTERNAL SKILL GAPS BY REGION**

column percentages

| | East Midlands | Eastern | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humberside | All regions |
|---|---|---|---|---|---|---|---|---|---|---|
| Occupation | | | | | | | | | | |
| Managers/senior officials | 14 | 14 | 14 | 14 | 12 | 13 | 11 | 12 | 14 | 13 |
| Professionals | 3 | 7 | 6 | 13 | 5 | 7 | 5 | 6 | 6 | 6 |
| Associate professional | 5 | 4 | 7 | 7 | 7 | 6 | 7 | 5 | 6 | 6 |
| Administrative/ Secretarial | 8 | 15 | 18 | 13 | 12 | 14 | 12 | 10 | 11 | 13 |
| Skilled trades | 10 | 7 | 6 | 7 | 7 | 8 | 9 | 9 | 8 | 8 |
| Personal Service | 6 | 11 | 11 | 12 | 10 | 11 | 10 | 9 | 12 | 10 |
| Sales/customer service | 17 | 17 | 21 | 11 | 15 | 14 | 15 | 11 | 16 | 15 |
| Operatives | 22 | 13 | 8 | 10 | 19 | 12 | 15 | 25 | 17 | 15 |
| Elementary occupations | 14 | 14 | 9 | 13 | 13 | 16 | 13 | 13 | 10 | 13 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Total skill gaps of employment | 4.1 | 3.6 | 3.5 | 4.0 | 3.7 | 4.1 | 5.3 | 4.2 | 3.2 | 3.9 |
| Weighted Base | 66,658 | 77,453 | 127,834 | 37,441 | 98,244 | 137,404 | 103,501 | 92,837 | 62,691 | 804,063 |
| Unweighted Base | 6973 | 9735 | 14106 | 5161 | 12286 | 13551 | 12183 | 10564 | 6747 | 91305 |

Source: ESS 2001 (IER/IFF)
Base: Internal Skill Gaps: employee based measure

**TABLE 3.7**

**OCCUPATIONAL DISTRIBUTION OF INTERNAL SKILL GAPS BY REGION**

row percentages

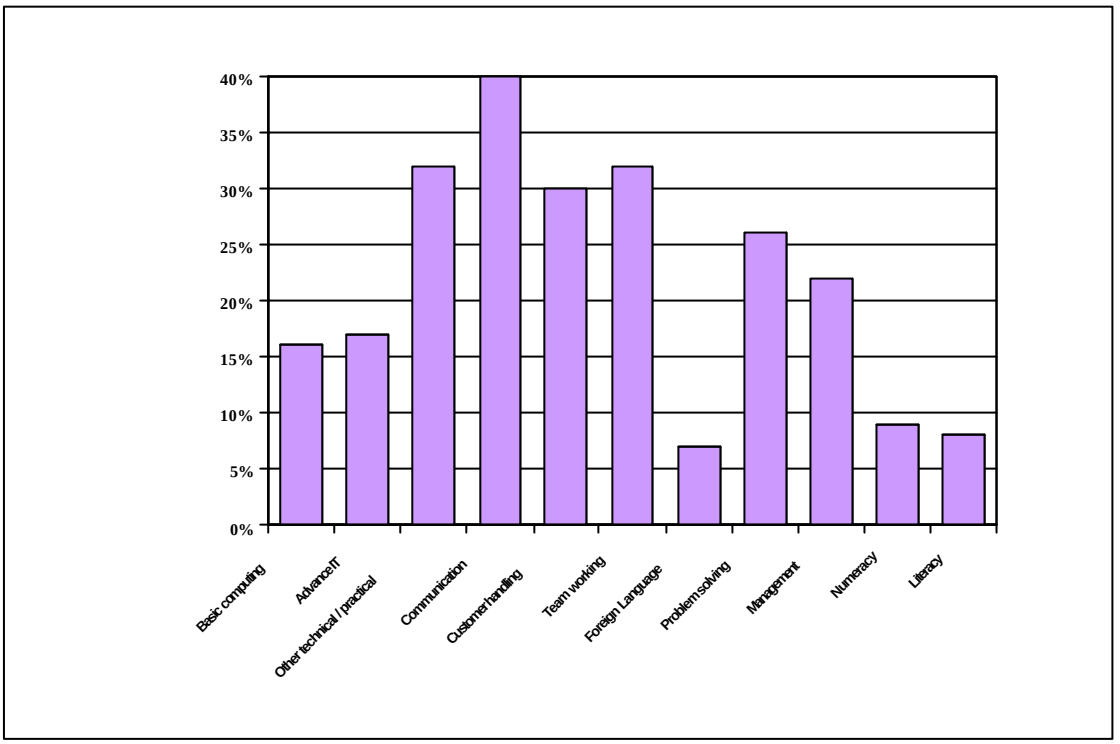
| | East Midlands | Eastern | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humberside | Total | Skill gaps as a share of total employment | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Occupation | | | | | | | | | | | | | |
| Managers/senior officials | 9 | 11 | 18 | 5 | 11 | 17 | 11 | 10 | 8 | 100 | 3.3 | 104,170 | 11395 |
| Professionals | 4 | 10 | 16 | 10 | 10 | 20 | 11 | 11 | 8 | 100 | 1.9 | 50,314 | 6449 |
| Associate professional | 7 | 6 | 18 | 6 | 14 | 17 | 16 | 10 | 8 | 100 | 2.8 | 47,981 | 4787 |
| Administrative/ Secretarial | 5 | 11 | 22 | 5 | 11 | 18 | 12 | 9 | 7 | 100 | 3.3 | 104,226 | 11255 |
| Skilled trades | 10 | 8 | 12 | 4 | 11 | 17 | 15 | 13 | 9 | 100 | 3.3 | 62,523 | 6161 |
| Personal Service | 5 | 10 | 17 | 5 | 12 | 18 | 13 | 10 | 9 | 100 | 5.5 | 82,225 | 9490 |
| Sales/customer service | 9 | 10 | 21 | 3 | 12 | 15 | 13 | 8 | 8 | 100 | 4.8 | 124,326 | 11568 |
| Operatives | 12 | 8 | 9 | 3 | 15 | 13 | 13 | 19 | 8 | 100 | 5.7 | 124,056 | 17011 |
| Elementary occupations | 9 | 10 | 11 | 5 | 13 | 21 | 13 | 12 | 6 | 100 | 6.1 | 104,244 | 13191 |

Source: ESS 2001 (IER/IFF)
Base: Internal Skill Gaps: employee based measure

## 3.5 Skill characteristics of internal skill gaps

*Table 3.8* presents an analysis of the skill characteristics of internal skill gaps using the employee based measure by occupation[3] and *Figure 3.4* summarises the *skill characteristics* of reported skill gaps across all occupations.

**FIGURE 3.4**
**SKILL CHARACTERISTICS OF INTERNAL SKILL GAPS**




Source: ESS 2001 (IER/IFF)
Base: All internal skill gaps

The key findings to emerge are:

- basic computing skills were most likely to be mentioned with respect to administrative/secretarial occupations, although senior managers and sales/customer service occupations were also frequently mentioned;

- advanced IT skills tended to be mentioned with respect to administrative/secretarial occupations and professionals;

- technical and practical skills other than those related to IT, was one of the most commonly cited skill gaps across all occupations. This was particularly important with respect to operatives, and to a lesser extent, associate professional and skilled trades occupations;

- communication skills were the most commonly cited skill gaps across the board. It was especially important for managers/senior officials;

[3] The percentage here can be translated into the number of employees in each occupational category with problems in specific skill areas by dividing the corresponding percentage figure by 100 and multiplying by the number in the bottom row of the table.

- customer handling was especially important for sales/customer service and personal and protective service occupations;

- team working was reported as a frequent skill gap across all occupations but was especially important with respect to managers/senior officials;

- foreign language skills were mentioned by few establishments. Administrative/secretarial occupations were mentioned most frequently;

- problem solving was mentioned across all occupations, but especially so in relation to professionals and process, plant and machine operatives;

- numeracy and literacy skills were mentioned in few instances, but were more likely to be mentioned in respect of operatives.

Employers largely perceived internal skill gaps in terms of generic skill shortcomings (especially in communication, customer handling and team-working skills) *(see Figure 3.4/Table 3.9).* These are reported ahead of the technical and practical skills which underlay many skill-related recruitment difficulties (except for skilled trades).

**TABLE 3.8**
**SKILL CHARACTERISTICS OF OCCUPATIONAL SKILL GAPS**

| | SOC | | | | | | | | | column percentages |
|---|---|---|---|---|---|---|---|---|---|---|
| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales / Customer service | Production & Process Operatives | Elementary occupations | Total |
| Skill characteristics | | | | | | | | | | |
| Basic Computing | 19 | 16 | 16 | 25 | 12 | 8 | 20 | 16 | 7 | 16 |
| Advanced IT | 24 | 35 | 27 | 35 | 12 | 7 | 17 | 10 | 5 | 17 |
| Other Technical/ Practical | 23 | 22 | 40 | 33 | 42 | 20 | 28 | 51 | 24 | 32 |
| Communication | 47 | 40 | 41 | 38 | 29 | 39 | 43 | 39 | 37 | 40 |
| Customer Handling | 22 | 27 | 26 | 28 | 21 | 38 | 48 | 16 | 33 | 30 |
| Team Working | 39 | 27 | 26 | 26 | 29 | 33 | 28 | 37 | 32 | 32 |
| Foreign Language | 7 | 7 | 8 | 12 | 5 | 5 | 6 | 7 | 5 | 7 |
| Problem Solving | 24 | 34 | 25 | 27 | 22 | 19 | 29 | 34 | 20 | 26 |
| Management | 55 | 35 | 22 | 26 | 16 | 10 | 19 | 13 | 8 | 22 |
| Numeracy | 3 | 5 | 6 | 10 | 7 | 9 | 9 | 16 | 10 | 9 |
| Literacy | 2 | 3 | 7 | 8 | 5 | 11 | 9 | 16 | 9 | 9 |
| **Weighted Base** | 94,807 | 40,926 | 40,561 | 90,175 | 56,891 | 76,252 | 117,278 | 115,726 | 99,705 | 732,322 |
| **Unweighted Base** | 10,168 | 4,411 | 3,676 | 9,049 | 5,355 | 8,609 | 10,699 | 15,957 | 12,563 | 80,488 |

Source: ESS2001 (IER/IFF)
Base: Internal Skill Gaps which were followed up: employee based measure

**TABLE 3.9**

**TYPE OF SKILLS SOUGHT IN RELATION TO INTERNAL SKILL GAPS**

row percentages

| Occupation | Type of skill sought | | | | | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|
| | Technical skills only | Generic skills only | Technical and generic skills in combination | No particular skills | Total | | |
| Managers/senior officials | 8 | 53 | 29 | 9 | 100 | 94091 | 10168 |
| Professionals | 13 | 40 | 34 | 13 | 100 | 41810 | 4411 |
| Associate professional | 21 | 38 | 33 | 9 | 100 | 40571 | 3676 |
| Admin./secretarial | 17 | 36 | 39 | 9 | 100 | 89451 | 9049 |
| Skilled trades | 21 | 33 | 29 | 18 | 100 | 56965 | 5355 |
| Personal service | 5 | 54 | 20 | 21 | 100 | 75628 | 8609 |
| Sales | 5 | 52 | 31 | 12 | 100 | 117640 | 10699 |
| Operatives | 17 | 34 | 37 | 12 | 100 | 115776 | 15957 |
| Elementary occupations | 8 | 53 | 19 | 20 | 100 | 99330 | 12563 |
| All | 12 | 45 | 30 | 14 | 100 | 731262 | 80488 |

Source: ESS2001 (IER/IFF)
Base: Internal Skill Gaps which were followed up: employee based measure
Note: 'Technical skills' here comprise advanced IT and other technical/practical skills; 'Generic skills' comprise communication skills, customer handling skills, team working skills, problem solving skills, basic computer literacy, management skills, numeracy skills and literacy skills

## 3.6 Reasons for lack of full proficiency – causes of skill gaps

Available evidence demonstrates that organisations have been through considerable organisational and technical change over the past twenty years, resulting in new working practices, new machinery, and new skill sets developing on the shopfloor or in the office. This can result in some employees being left behind in the modernisation process, resulting in a lack of full proficiency in the work roles they are now expected to fill. The evidence from the present survey confirms that respondents perceive the failure to train and develop staff as the most important causes of skill gaps, although a number of other factors were also mentioned *(see Figure 3.5)*.

**FIGURE 3.5**
**MAIN CAUSES ASSOCIATED WITH INTERNAL SKILL GAPS**


Base: All internal skill gaps: employee based measure
Source: ESS2001 (IER/IFF)

Approximately 34 per cent of skill gaps were caused in part by their companies failure to train and develop staff – ahead of the 30 per cent associated with the inability of the workforce to keep up with change and recruitment problems. A variety of causes give rise to specific occupational skill shortcomings, but what is apparent is the prominence of the failure to develop and train staff as an important contributory factor across occupations *(see Table 3.10)*. Difference between occupations related to:

- a failure to train and develop staff was the most common response across all occupations with the exception of skilled trades where it lagged slightly behind recruitment problems as a reported cause of skill gaps; failure to train and develop staff was particularly frequently mentioned in relation to senior officials/managers;
- recruitment problems again were commonly cited across occupations but especially so for elementary and associate professional occupations;
- poor labour retention was mentioned most often in relation to elementary and personal service occupations and least often for senior officials/managers;
- inability of the workforce to keep up with change was mentioned most for administrative/secretarial and operative occupations.

**TABLE 3.10**
**REASONS WHY STAFF NOT FULLY PROFICIENT**

column percentages

| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales / Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Failure to train and develop staff | 46 | 35 | 33 | 34 | 29 | 28 | 37 | 38 | 25 | 35 |
| Recruitment problems | 20 | 28 | 32 | 24 | 30 | 28 | 30 | 32 | 33 | 28 |
| Poor labour retention | 16 | 29 | 19 | 26 | 16 | 33 | 31 | 29 | 40 | 28 |
| Inability of workforce to cope with change | 32 | 29 | 31 | 36 | 29 | 27 | 26 | 36 | 23 | 30 |
| Lack of experience | 8 | 15 | 13 | 13 | 6 | 6 | 12 | 6 | 8 | 9 |
| Lack of motivation | 3 | 5 | 5 | 5 | 8 | 10 | 4 | 7 | 16 | 7 |
| Weighted Base | 94,807 | 40,926 | 40,561 | 90,175 | 56,891 | 76,252 | 117,278 | 115,726 | 99,705 | 732,322 |
| Unweighted Base | 10168 | 4411 | 3676 | 9049 | 5355 | 8609 | 10699 | 15957 | 12563 | 80488 |

Source: ESS 2001 (IER/IFF)
Base: Internal Skill Gaps which were followed up: employee based measure

The reasons for staff lacking proficiency varied by size of establishment *(see Table 3.11)*. In general, each designated reason for skill gaps increases in line with the number of employees in the establishment. For instance, around 14 per cent of internal skill gaps in establishments with 1-4 employees were caused by a failure to train, and this increases to 46 per cent in establishments with 1000 or more employees.

**TABLE 3.11**
**REASONS WHY STAFF NOT FULLY PROFICIENT BY SIZE OF ESTABLISHMENT**

column percentages

| | Number of employees in establishment | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **1-4** | **5-24** | **25-49** | **50-99** | **100-199** | **200-499** | **500-999** | **1000+** | **Total** |
| Failure to train and develop staff | 14 | 30 | 33 | 33 | 40 | 41 | 42 | 46 | 34 |
| Recruitment problems | 11 | 26 | 27 | 28 | 29 | 32 | 36 | 40 | 29 |
| High staff turnover | 8 | 19 | 22 | 29 | 35 | 42 | 30 | 37 | 28 |
| Inability of workforce to keep up with change | 27 | 22 | 31 | 26 | 32 | 38 | 32 | 40 | 30 |
| Lack of experience | 14 | 9 | 11 | 10 | 7 | 9 | 12 | 4 | 9 |
| Lack of motivation | 13 | 9 | 7 | 6 | 6 | 7 | * | 6 | 7 |
| Weighted base | 21370 | 149602 | 97363 | 112984 | 69108 | 124284 | 43912 | 48789 | 731262 |
| Unweighted base | 167 | 3490 | 8316 | 9415 | 11852 | 21018 | 10841 | 12187 | |
| | | | | | | | | | 80488 |

Base: Internal skill gaps which were followed up: employee based measure
Source: ESS2001 (IER/IFF)

## 3.7 Overcoming skill gaps

Where the respondent reported skill gaps in an occupational group, an enquiry was made as to the methods used to overcome such skill gaps (*see Table 3.12*). Where internal skill gaps existed, the most common response was to provide further training (72 per cent of skill gaps). Changing working practices (40 per cent) and expand or increase trainee programmes (39 per cent) were also common responses. In just 10 per cent of cases no particular solution was cited.

There was some variation in the response to skill gaps between different occupations. Increased recruitment was more likely to be a response with regard to skill gaps amongst personal service occupations and elementary occupations *(see Table 3.12).* This may reflect the respondents perception of the availability in the external labour market of the skills associated with these occupations. Providing further training to existing staff was a common response across many occupations, especially so with respect to sales/customer service and operatives. Changing working practices was another frequently quoted response by establishments, being mentioned with respect to both manual and non-manual occupations.

## 3.8 Barriers to maintaining fully proficient staff

Establishments were also asked, for each occupational group they employed, what were the barriers that existed to developing or maintaining a fully proficient team in the future. The main barriers for each occupation are presented in *Table 3.13.* A lack of any barriers was mentioned most in relation to lower level occupations with 60 per cent of establishments citing there to be no barriers to developing or maintaining proficiency amongst staff in operative and elementary occupations. Where barriers were mentioned, they tended to relate to training more than recruitment problems or high labour turnover which were mentioned by only a small proportion of establishments for any occupation. For occupations with a relatively high skill level training problems were mentioned more often. For instance, around a third of establishments reported 'a lack of time for training' as a barrier to maintaining proficiency amongst their managers/senior officials, professionals and associate professionals, compared to around a fifth of establishments reporting this to be a barrier amongst their operatives or elementary occupations.

**TABLE 3.12**
**ACTION TAKEN TO OVERCOME INTERNAL SKILLS GAPS BY OCCUPATION**

column percentages

| | Managers / senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales & Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Increased recruitment | 17 | 27 | 28 | 24 | 28 | 33 | 30 | 28 | 33 | 27 |
| Provide further training | 65 | 73 | 73 | 72 | 66 | 69 | 80 | 77 | 65 | 72 |
| Change working practices | 39 | 38 | 41 | 37 | 40 | 31 | 41 | 48 | 39 | 40 |
| Relocate work within company | 20 | 24 | 24 | 25 | 20 | 17 | 16 | 18 | 17 | 20 |
| Expand recruitment channels | 19 | 27 | 27 | 24 | 25 | 25 | 20 | 27 | 25 | 24 |
| Increase / expand trainee programmes | 35 | 34 | 38 | 40 | 41 | 37 | 40 | 44 | 39 | 39 |
| No particular solution | 17 | 9 | 9 | 10 | 9 | 13 | 6 | 5 | 12 | 10 |
| Weighted Base | 94,807 | 40,926 | 40,561 | 90,175 | 56,891 | 76,252 | 117,278 | 115,726 | 99,705 | 732,322 |
| Unweighted | 10168 | 4411 | 3676 | 9049 | 5355 | 8609 | 10699 | 15957 | 12563 | 80488 |

Base: Internal Skill Gaps which were followed up: employee based measure
Source: ESS2001 (IER/IFF)

**TABLE 3.13**
**BARRIERS TO MAINTAINING FULLY PROFICIENT STAFF**

| | Managers / senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales / Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Lack of funding for training | 21 | 24 | 26 | 18 | 22 | 21 | 18 | 14 | 16 | 23 |
| Lack of suitable courses relevant to this grade of staff | 12 | 11 | 13 | 8 | 14 | 9 | 11 | 9 | 7 | 13 |
| Lack of suitable courses in area/locality | 13 | 13 | 15 | 8 | 13 | 10 | 11 | 8 | 6 | 14 |
| Unwillingness of staff to undertake training | 8 | 7 | 8 | 5 | 7 | 12 | 7 | 9 | 9 | 9 |
| High labour turnover | 5 | 4 | 6 | 4 | 5 | 8 | 8 | 7 | 8 | 7 |
| Lack of time for training | 32 | 33 | 34 | 28 | 29 | 23 | 27 | 20 | 20 | 31 |
| Lack of cover for training | 23 | 24 | 27 | 23 | 21 | 18 | 22 | 16 | 14 | 23 |
| No barriers | 46 | 44 | 44 | 54 | 46 | 49 | 53 | 60 | 60 | 56 |
| Weighted Base | 1227661 | 318664 | 208308 | 636938 | 356188 | 198157 | 363703 | 150899 | 248160 | 2058713 |
| Unweighted base | 24138 | 10597 | 7449 | 18256 | 9089 | 7132 | 8441 | 5845 | 8198 | 27031 |

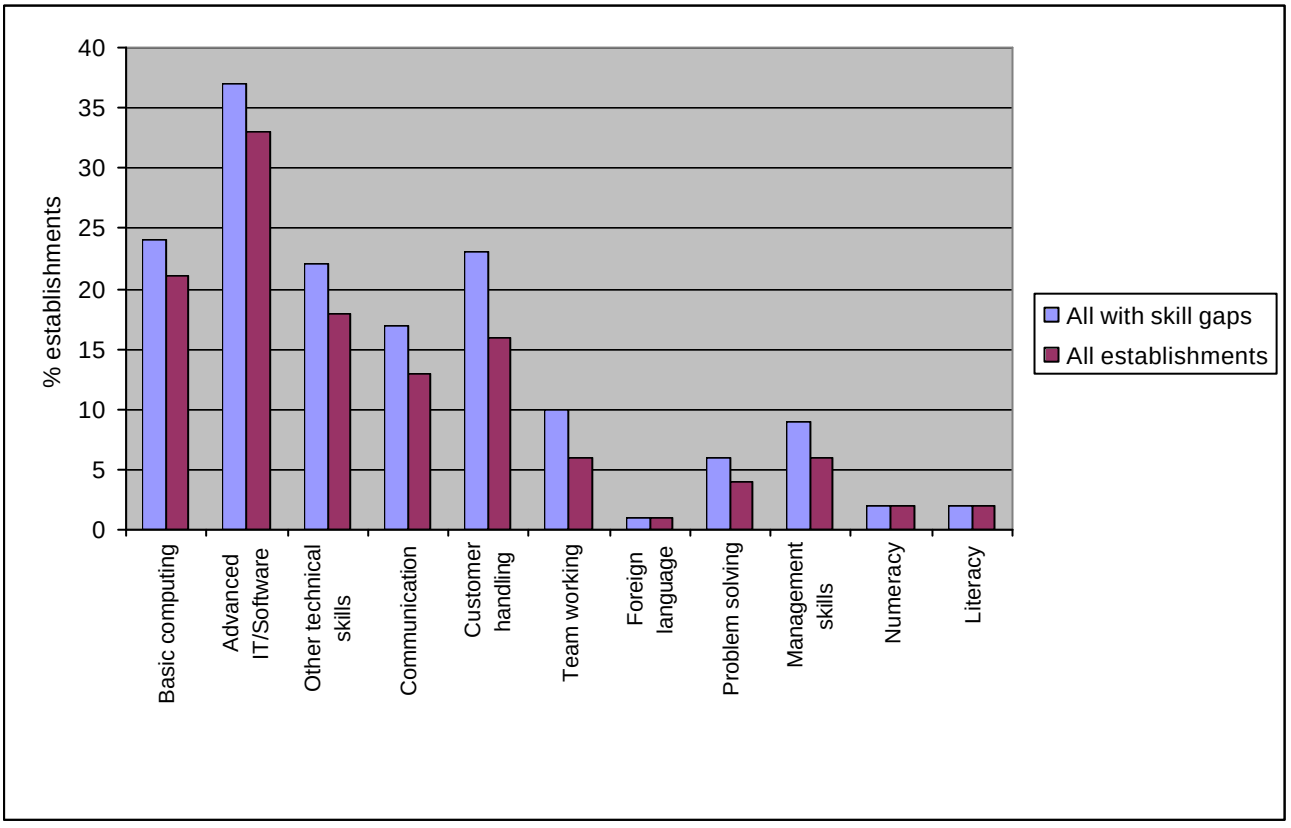
Base: All establishments
Source: ESS2001 (IER/IFF)

## 3.9 Future skill needs

Looking to the next two to three years establishments reported that they anticipated a demand for new skills arising from the development of new products and services, the introduction of new working practices, and the introduction of new technology *(see Table 3.14)*. This was particularly marked in relation to relatively more skilled occupational groups, especially the so-called higher occupational groups (managers/senior officials, professionals, and associate professionals). For instance, 35 per cent of establishments reported that the development of new products and services would affect the skill needs of staff in professional occupations compared to just 11 per cent in relation to elementary occupations.

The types of skills expected to be most in need over the next two to three years were advanced IT/software skills (33 per cent of all establishments), followed by basic computing (21 per cent), and other technical/practical skills (18 per cent) *(see Figure 3.6)*. Generally, where establishments reported skill gaps in their existing workforce they tended to report a greater demand for all of the designated skills.

**FIGURE 3.6**
**SKILLS NEEDED OVER NEXT TWO TO THREE YEARS**




Base: All establishments
Source: ESS2001 (IER/IFF)

The demand for skills also increases with size of establishment *(see Table 3.15)*. For instance, 56 per cent of establishments with 1000 or more employees expected a future demand for advanced IT/software skills, compared to 31 per cent amongst those with 1-4 employees. This increase in demand with size of establishment is true for almost every category of skill need.

## 3.10 Skill gaps and skill-shortage vacancies

The degree of overlap between establishments suffering from skill gaps and skill-shortage vacancies was limited *(see Table 3.16)*. In fact, only one per cent of all establishments endured both. Larger establishments were more likely to report both skill gaps and skill-shortage vacancies, but even here the proportion doing so was quite small. Around 5 per cent of establishments with 1000 or more employees experienced both, compared to the overall average of 1 per cent. One might conclude that skill-shortage recruitment problems and skill gaps are quite separate phenomenon experienced for the most part in isolation from one another.

**TABLE 3.14**
**REASONS FOR CHANGING SKILL NEEDS BY OCCUPATION**

column percentages

| | Managers/ senior officials | Professionals | Associate Professionals | Admin/ Secretarial | Skilled trades | Personal Services | Sales / Customer service | Operatives | Elementary occupations | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| New skills needed in order to develop new products and services | 28 | 35 | 35 | 24 | 28 | 21 | 25 | 14 | 11 | 29 |
| New skills needed to cope with new working practices | 39 | 46 | 45 | 37 | 38 | 33 | 32 | 25 | 21 | 40 |
| New skills needed to cope with the introduction of new technology | 45 | 54 | 56 | 53 | 41 | 22 | 40 | 26 | 15 | 46 |
| No change | 39 | 30 | 28 | 36 | 43 | 58 | 47 | 59 | 71 | 49 |
| Weighted Base | 1227661 | 318644 | 208308 | 636938 | 356188 | 198157 | 363703 | 150899 | 248160 | 2058713 |
| Unweighted base | 24138 | 10597 | 7449 | 18256 | 9089 | 7132 | 8441 | 5845 | 8198 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

**TABLE 3.15**
**FUTURE SKILL NEEDS**

percentages

| | Number of employees in establishment | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **1-4** | **5-24** | **25-49** | **50-99** | **100-199** | **200-499** | **500-999** | **1000+** | **Total** |
| Basic computer literacy | 19 | 26 | 27 | 27 | 28 | 28 | 28 | 34 | 21 |
| Advanced IT/software | 31 | 36 | 42 | 43 | 47 | 46 | 52 | 56 | 33 |
| Other technical/practical | 17 | 19 | 20 | 20 | 21 | 22 | 25 | 23 | 18 |
| Communications | 12 | 16 | 17 | 18 | 19 | 19 | 21 | 27 | 13 |
| Customer handling | 14 | 22 | 21 | 22 | 22 | 25 | 24 | 26 | 16 |
| Team working | 4 | 9 | 11 | 11 | 12 | 13 | 12 | 17 | 6 |
| Foreign language | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 4 | 1 |
| Problem solving | 4 | 6 | 6 | 6 | 6 | 7 | 8 | 10 | 4 |
| Management | 5 | 8 | 11 | 12 | 15 | 15 | 23 | 24 | 8 |
| Numeracy | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 |
| Literacy | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 |
| Weighted base | 1481190 | 430708 | 75987 | 41507 | 15493 | 10928 | 1895 | 1014 | 2058713 |
| Unweighted base | 3701 | 8766 | 6151 | 3306 | 2605 | 1799 | 457 | 248 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

**TABLE 3.16**
**SKILL GAPS AND SKILL-SHORTAGE VACANCIES BY SIZE OF ESTABLISHMENT**

column percentages

| | Number of employees in establishment | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1-4** | **5-9** | **10-24** | **25-49** | **50-99** | **100-199** | **200-499** | **500-999** | **1000+** | **Total** |
| Neither skill gaps nor skill-shortage vacancies | 94 | 85 | 79 | 75 | 71 | 70 | 67 | 64 | 59 | 90 |
| Skill gaps only | 3 | 11 | 15 | 17 | 19 | 18 | 20 | 22 | 19 | 6 |
| Skill-shortage vacancies only | 3 | 3 | 5 | 5 | 8 | 8 | 9 | 10 | 18 | 3 |
| Skill gaps and skill-shortage vacancies | * | 1 | 1 | 2 | 3 | 4 | 4 | 5 | 5 | 1 |
| Weighted base | 1481190 | 227664 | 203044 | 75978 | 41507 | 15493 | 10928 | 1895 | 1014 | 2058713 |
| Unweighted base | 3701 | 3676 | 5090 | 6151 | 3306 | 2605 | 1799 | 456 | 247 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

## 3.11 Conclusion

Estimates based on the survey data reveal that there were, in total, 1.9 million employees whom their employers thought were not fully proficient in the current jobs. Using the more specific definition of skill gaps, there were 802 thousand in 2000/01. Where they were recognised, these problems tended to be limited to a single occupational group although the actual skill content of the shortcoming tended to cover a range of different skills. Unlike recruitment problems, the greatest volume of skill gaps was not found in the smallest establishments; around 3 per cent of all skill gaps were found in workplaces with 1-4 employees compared to 40 per cent of skill shortage vacancies. In fact, the majority of skill gaps were found in medium sized companies

In considering the causes of internal skill gaps, it is apparent that employers acknowledge their own failure to train their workforce as the most important cause. Increased training was a solution adopted for three-quarters of skill gaps reported, which suggests the weight placed by employers on training to address this problem.

However, further difficulties are presented by consideration of factors cited by employers which prevented them from maintaining a fully proficient workforce – lack of time, cover and funding for training were all factors mentioned frequently by employers. This would suggest that skill gaps cannot easily be resolved if training is both a means of addressing skill gaps, but also the capacity to provide training is restricted by resources or employer commitment to provide such resources.

Employers who experienced internal skill gaps were more likely to report future skill needs than those who didn't. This suggests that such employers are more aware of their skill needs and suggests that latent skill gaps may be a factor where employers have not reported skill gaps because they have not become apparent to them. This is explored further in 4.15.

# 4. IMPACT OF SKILLS DEFICIENCIES

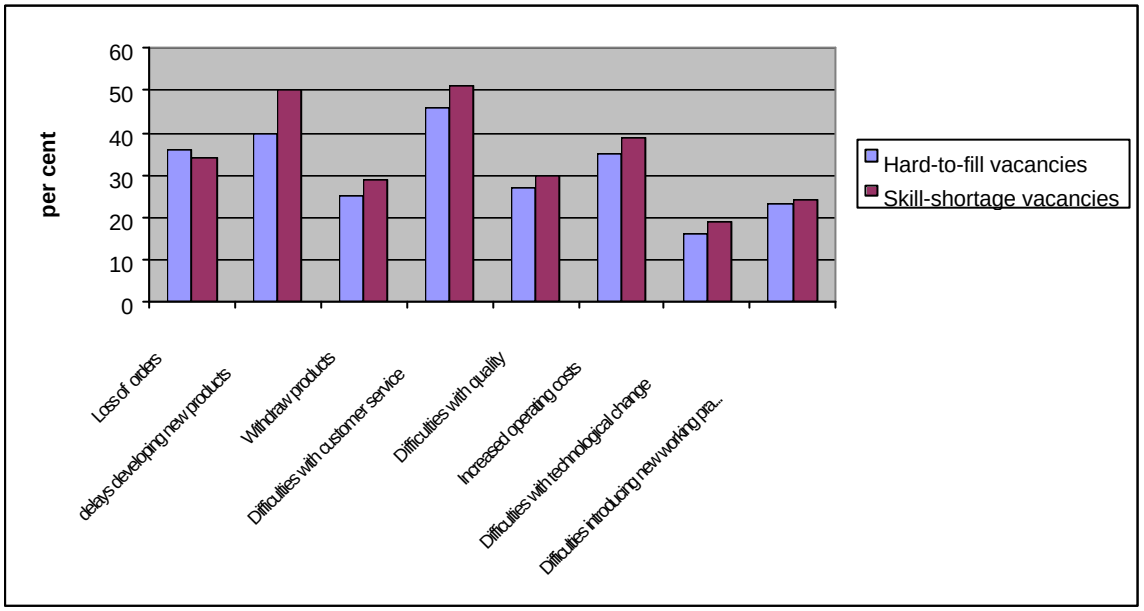
## 4.1 Introduction

This chapter explores the implications of skill deficiencies for establishment performance. It deals primarily with those questions that asked the respondent directly for their views of the consequences of skill deficiencies for the performance of the establishment. It begins by exploring the respondent's perceptions of the effects of external recruitment difficulties on the establishment's performance where the main focus of attention is on the impact of skill-shortage vacancies. The following sections highlight the respondent's perception of the impact of internal skill gaps on performance. The main emphasis here is on the subset of establishments where fewer than nearly all staff were reported as fully proficient (*ie.* the specific measure of internal skill gaps defined in *Chapter 3*). Finally, the product market position of the establishment is considered with respect to any skill deficiencies it may face.

## 4.2 Impact of recruitment problems on performance

Respondents perceptions of the impact of hard-to-fill vacancies and skill-shortage vacancies on their establishment are summarised in *Figure 4.1*.

**FIGURE 4.1**
**IMPACT OF RECRUITMENT PROBLEMS ON ESTABLISHMENT PERFORMANCE**




Base: All vacancies
Source: ESS2001 (IFF/IER)

Generally, the responses to hard-to-fill vacancies and skill-shortage vacancies were similar, except that 'delays developing new products' was mentioned by a greater proportion of establishments reporting skill-shortage vacancies than those reporting hard-to-fill vacancies. Overall, 'difficulties meeting customer service standards' was the most commonly reported response, affecting about 51 per cent of skill-shortage vacancies. 'Delays in developing new products or services' (49 per cent) and 'increased operating costs' (39 per cent) were also important.

'Loss of orders' or 'delays developing new products or services' may be considered to be severe impacts on business performance. These were mentioned in 34 per cent and 50 per cent of establishments respectively. From this one may conclude that skill deficiencies have serious consequences for establishment performance in a large proportion of workplaces.

## 4.3 Impact of recruitment problems on performance by occupation

A comparison of the impact of recruitment problems by occupation reveals some notable differences *(see Table 4.1)*. Overall, it appears to be skill-shortage vacancies for skilled trades occupations that are associated with the most serious impacts on business performance. Approximately 61 per cent of skill-shortage vacancies for this occupational group resulted in a 'loss of business orders' and 60 per cent 'delays developing new products'. Skill-shortage vacancies for senior officials/managers and associate professionals were also more likely to lead to 'delays in developing new products'.

Other key findings to emerge were as follows:

- 'withdraw products' was more likely to be reported as a response to skill-shortage vacancies for senior officials/managers and skilled trades occupations;
- 'difficulties with customer service' was associated more with skill-shortage vacancies for senior officials/managers, skilled trades, and operatives;
- 'difficulties with quality' were mentioned across most occupations, but especially skilled trades occupations;
- 'increased costs' was more likely to be reported with respect to skill-shortage vacancies for skilled trades occupations;
- 'difficulties with technological change' was reported more in connection to skill-shortage vacancies for senior officials/managers, and skilled trades occupations;
- 'difficulties introducing new working practices' was much more likely to be reported in respect of skill shortage vacancies for senior managers/officials and administrative/secretarial occupations.

It is apparent that those establishments with skill-shortage vacancies for senior officials/managers and skilled trades occupations were much more likely to report a range of impacts on business performance pointing to the relative importance of these occupational groups within workplaces.

**TABLE 4.1**

**IMPACT OF SKILL-SHORTAGE VACANCIES ON PERFORMANCE BY OCCUPATION**

column percentages

| | Senior Officials/ Managers | Professional occupations | Associate professional | Admin & secretarial occupations | Skilled trades | Personal service occupations | Sales / customer service occupations | Operatives | Elementary | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Loss of business / orders to competitors | 36 | 22 | 54 | 18 | 56 | 30 | 41 | 37 | 31 | 39 |
| Delays developing new products | 68 | 52 | 64 | 38 | 55 | 47 | 31 | 28 | 29 | 49 |
| Withdrawal of services / products | 52 | 36 | 15 | 12 | 46 | 20 | 28 | 18 | 18 | 28 |
| Difficulties with customer services | 67 | 46 | 38 | 44 | 55 | 50 | 49 | 60 | 39 | 49 |
| Difficulties with quality standards | 24 | 36 | 24 | 25 | 26 | 23 | 28 | 25 | 37 | 28 |
| Increased operating costs | 33 | 55 | 27 | 38 | 49 | 20 | 25 | 39 | 31 | 38 |
| Difficulties with technical change | 31 | 16 | 15 | 13 | 33 | 5 | 15 | 12 | 5 | 17 |
| Difficulties with new working practices | 55 | 29 | 21 | 46 | 28 | 15 | 14 | 18 | 22 | 26 |
| Don't know / not specified | 15 | 7 | 10 | 17 | 9 | 18 | 36 | 18 | 31 | 15 |
| Weighted Base | 8209 | 29959 | 29151 | 10708 | 27396 | 14834 | 14572 | 14645 | 8460 | 158,056 |
| Unweighted Base | 327 | 1993 | 2036 | 896 | 1188 | 760 | 533 | 1077 | 537 | 9514 |

Source: ESS2001 (IFF/IER)
Base: All skill-shortage vacancies

## 4.4 Impact of recruitment problems by size of establishment

There is no simple relationship between size of establishment and the impact of skill-shortage vacancies *(see Table 4.2)*. If, for example, one compares the impact of 'loss of orders' or 'delays in developing new products' – arguably the most serious impacts of skill deficiencies arising – there is no obvious trend with respect to the number of people employed.

## 4.5 Impact of recruitment problems by industrial sector

Establishments in the manufacturing, construction and finance sectors were the most likely to respond that skill-shortage vacancies had an impact on any category of performance *(see Table 4.3)*. In particular, these three sectors (along with public administration) were much more likely to respond that skill-shortage vacancies were associated with customer service problems.

Other key messages include:

- 'delays developing new products' was mentioned by a relatively high proportion of business service establishments, as well as manufacturing firms;
- 'difficulties with quality' was mentioned frequently in education and other services;
- 'difficulties with new working practices' was a common response in finance and business services.

## 4.6 Impact of recruitment problems by region

There is no clear regional pattern to the data with one group of regions experiencing a group of problems compared to another. There are likely to be a range of factors underlying the regional pattern such as the relative incidence of skill-shortage vacancies by region, and industrial and occupational structures.

The key regional findings were:

- ? 'loss of orders' was much more likely to be mentioned in the South West and East and West Midlands;
- ? 'delays in developing new products' was most commonly cited in the London and the East Midlands;
- ? 'withdraw products' was more likely to be reported in London and the West Midlands;
- ? 'difficulties with customer service' was mentioned most frequently in the South East and the West Midlands;
- ? 'difficulties with quality' was most commonly cited in the East Midlands and London;
- ? 'increased costs' appears to be a particular problem in London, the North East and the South West;
- ? 'difficulties with technological change' was a particular problem in the Eastern region and West Midlands;
- ? 'difficulties introducing new working practices' was much more likely to be reported in the West Midlands (39 per cent of establishments) compared to just 12 per cent in the North East.

**TABLE 4.2**

**IMPACT OF SKILL-SHORTAGE VACANCIES BY SIZE OF ESTABLISHMENT**

column percentages

| | Number of employees | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Number of employees at establishment | **1-4** | **5-24** | **25-49** | **50-99** | **100-199** | **200-499** | **500-999** | **1000+** | **Total** |
| % of respondents reporting | | | | | | | | | |
| Loss of business / orders to competitors | 22 | 33 | 29 | 26 | 25 | 19 | 19 | 25 | 25 |
| Delays developing new products | 52 | 39 | 38 | 38 | 36 | 39 | 50 | 53 | 46 |
| Withdrawal of services / products | 33 | 21 | 16 | 16 | 13 | 12 | 9 | 13 | 27 |
| Difficulties with customer services | 41 | 47 | 46 | 50 | 48 | 48 | 58 | 70 | 44 |
| Difficulties with quality standards | 20 | 27 | 36 | 36 | 35 | 34 | 23 | 48 | 24 |
| Increased operating costs | 34 | 28 | 33 | 38 | 43 | 39 | 40 | 59 | 33 |
| Difficulties with technical change | 15 | 13 | 16 | 16 | 19 | 23 | 30 | 30 | 15 |
| Difficulties with new working practices | 32 | 20 | 26 | 21 | 23 | 25 | 31 | 36 | 28 |
| Weighted Base | 42628 | 20019 | 5555 | 4469 | 1807 | 1450 | 282 | 228 | 76438 |
| Unweighted Base | 108 | 464 | 461 | 343 | 305 | 230 | 66 | 56 | 2033 |

Source: ESS2001 (IFF/IER)
Base: All establishments with skill-shortage vacancies

**TABLE 4.3**
**IMPACT OF SKILL-SHORTAGE VACANCIES BY INDUSTRIAL SECTOR**

column percentages

| Sector | Agriculture | Manu'ring | Const'tion | Wholsale & Retail | Hotels & Rest'nts | Transport & Comms | Finance | Business Services | *Public Admin* | Education | Health & Social Care | Other Services | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % of respondents reporting | | | | | | | | | | | | | |
| Loss of business / orders to competitors | ! | 45 | 54 | 15 | 13 | 23 | 63 | 17 | *20* | 28 | 14 | 39 | 25 |
| Delays developing new products | ! | 52 | 42 | 27 | 23 | 20 | 58 | 61 | *49* | 50 | 49 | 36 | 46 |
| Withdrawal of services / products | ! | 33 | 40 | 18 | 12 | 12 | 42 | 33 | *18* | 32 | 15 | 16 | 27 |
| Difficulties with customer services | ! | 44 | 51 | 34 | 18 | 34 | 67 | 51 | *57* | 47 | 48 | 37 | 44 |
| Difficulties with quality standards | ! | 23 | 15 | 13 | 17 | 21 | 29 | 27 | *43* | 49 | 33 | 35 | 24 |
| Increased operating costs | ! | 41 | 35 | 19 | 31 | 23 | 42 | 41 | *19* | 36 | 33 | 15 | 33 |
| Difficulties with technical change | ! | 24 | 30 | 12 | 3 | 4 | 10 | 15 | *7* | 20 | 6 | 10 | 15 |
| Difficulties with new working practices | ! | 23 | 34 | 15 | 14 | 12 | 45 | 38 | *23* | 30 | 20 | 15 | 28 |
| Weighted Base | 788 | 7186 | 6853 | 11989 | 4291 | 3644 | 1655 | 27129 | *844* | 2239 | 40704 | 75748 | 76440 |
| Unweighted Base | 11 | 381 | 202 | 171 | 157 | 139 | 55 | 411 | *42* | 125 | 221 | 118 | 2033 |

Source: ESS2001 (IFF/IER)
Base: All establishments with skill-shortage vacancies

**TABLE 4.4**
**IMPACT OF SKILL-SHORTAGE VACANCIES BY REGION**

column percentages

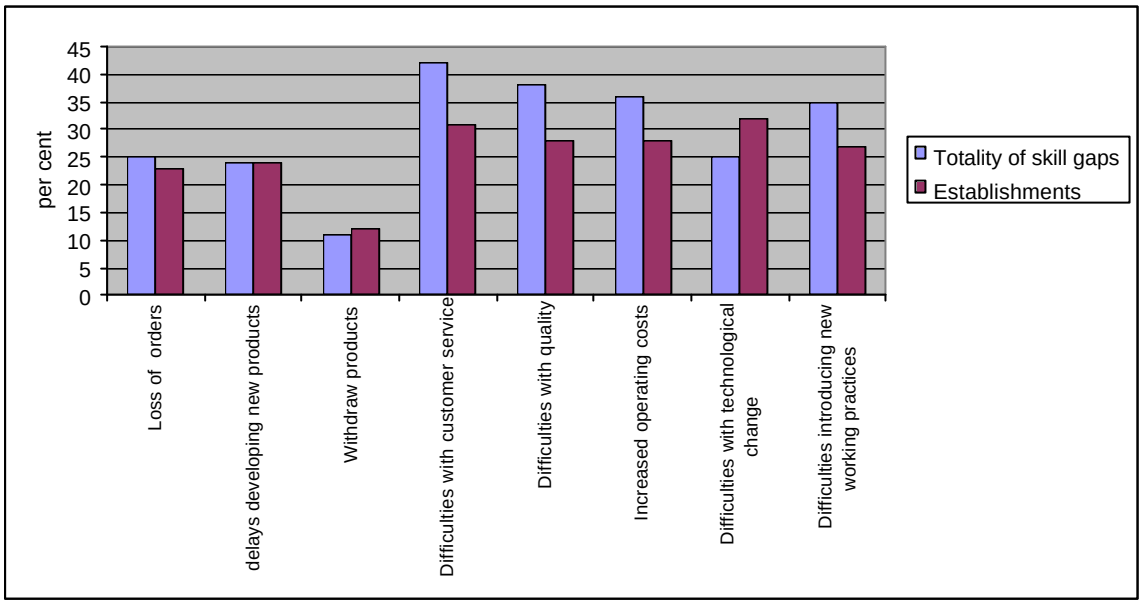
| | East Midlands | Eastern | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humberside | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| % of respondents reporting | | | | | | | | | | |
| Loss of business / orders to competitors | 50 | 24 | 18 | 25 | 15 | 26 | 30 | 41 | 24 | 25 |
| Delays developing new products | 59 | 43 | 70 | 34 | 45 | 38 | 27 | 43 | 30 | 46 |
| Withdrawal of services / products | 18 | 28 | 35 | 23 | 20 | 19 | 27 | 38 | 19 | 27 |
| Difficulties with customer services | 30 | 46 | 46 | 24 | 31 | 55 | 36 | 56 | 37 | 44 |
| Difficulties with quality standards | 41 | 19 | 39 | 10 | 12 | 19 | 21 | 23 | 26 | 24 |
| Increased operating costs | 19 | 32 | 46 | 47 | 20 | 22 | 58 | 19 | 24 | 33 |
| Difficulties with technical change | 13 | 27 | 4 | 8 | 15 | 12 | 14 | 27 | 17 | 15 |
| Difficulties with new working practices | 10 | 30 | 32 | 10 | 18 | 24 | 34 | 38 | 25 | 28 |
| Weighted Base | 11308 | 3510 | 16914 | 2234 | 8739 | 13968 | 9038 | 6781 | 3945 | 76437 |
| Unweighted Base | 163 | 255 | 343 | 84 | 186 | 399 | 216 | 244 | 142 | 2033 |

Source: ESS2001 (IFF/IER)
Base: All Establishments skill-shortage vacancies

## 4.7 Impact of *internal skill gaps* on performance

Where establishments reported skill-shortage vacancies - 4 per cent of establishments – this commonly had a serious impact on organisational performance, such as delaying the development of new products or services. With respect to skill gaps amongst the existing workforce one might expect this to have an even more direct impact because it refers to the capacity of existing staff to undertake satisfactorily their current jobs. As noted in Chapter 3, a substantial proportion of establishments reported skill gaps. The main effects of *internal skill gaps* on business performance were reported as difficulties with customer service (43 per cent of all establishments with skill gaps), difficulties with quality (28 per cent), and increased operating costs (28 per cent) – *(see Figure 4.3).* It is also apparent that a substantial proportion of establishments reported the more serious impacts of either a loss of orders (23 per cent) or delays developing new products (24 per cent).

**FIGURE 4.3**
**MAIN IMPACTS OF INTERNAL SKILL GAPS**




Source: ESS2001 (IFF/IER)
Base: Skill gaps/establishments
Note: Internal skill gaps focus on the total number of employees who are less than fully proficient for establishments answering that fewer than nearly all staff are fully proficient. See *Chapter 3* for a definition of the two measures of skill gaps.

## 4.8 Impact of *internal skill gaps* on performance by occupation

*Table 4.5* shows the impact of skill gaps on an occupation by occupation basis. Problems were widely cited as a consequence of lack of full proficiency in nearly all occupations. The key findings to emerge are:

- ? loss of orders was mentioned most often where skill gaps for sales/customer service occupations were reported;
- ? delays developing new products was mentioned more where skill gaps amongst professional and associate professional occupational groups were concerned;
- ? withdrawal from markets was evenly spread across all occupations where internal skill gaps were reported, with the exception of associate professional occupations where it was a more common impact;

- ? difficulties with customer service were cited more where skill gaps were reported amongst sales/customer service and operative occupational groups;
- ? difficulties with quality were spread evenly across occupations, but especially so in establishments with skill gaps amongst operatives;
- ? increased operating costs were mentioned much more in relation to skill gaps amongst operatives;

  difficulties with technological change were mentioned slightly more often where establishments had skill gaps amongst administrative and secretarial occupations;

  difficulties introducing new working practices was more commonly mentioned as an impact of skill gaps amongst manager/senior officials occupations.

It is apparent that particular difficulties were less likely to be associated with skill gaps amongst so-called higher level occupations (senior officials/managers, professionals, and associate professionals).

## 4.9 Impact of skill gaps by establishment size

The key finding in relation to size of establishment is the relatively low incidence of reported impacts in establishments with 1-4 employees *(see Table 4.6)*. For instance, 20 per cent of these establishments reported that skill gaps had led to 'difficulties meeting customer service', compared to 34 per cent in establishments with 5-24 employees, and 54 per cent with 1000 or more employees. Overall, establishments appear to be grouped in to three: (i) those with 1-4 employees, (ii) 5-24 employees, and (iii) 25 or more employees – with the incidence of reported problems increasing from (i) to (iii).

## 4.10 Impact of skill gaps by industrial sector

Loss of business or orders to competitors is arguably the worst impact of a skill deficiency. Overall just under a quarter of all establishments reported this impact, but this masks substantial sectoral differences *(see Table 4.7):*

- ? loss of business orders to competitors was recorded by 41 per cent of establishments in the finance sector, compared to just 7 per cent in health and social care or 3 per cent in agriculture;
- ? delays in developing new products and services were mentioned mainly by respondents in the public sector, where 42 per cent of establishments in public administration and 39 per cent in education mentioned this impact, compared to just 15 per cent in construction and agriculture respectively
- ? withdrawing from markets was recorded as more of a problem in the education sector than anywhere else;
- ? difficulties meeting customer service were more commonly cited in public administration and in finance ;
- ? difficulties delivering quality was mentioned most in the public administration, education , and health and social care ;
- ? increased operating costs was evenly spread across sectors but mentioned slightly more often in manufacturing , construction , and finance , and mentioned least often in agriculture ;
- ? difficulties with technological change was mentioned most often in finance (38 per cent), public administration, and business services ;

? difficulties with introducing new working practices was cited as an impact more in public administration , education and finance than other sectors.

The row of *Table 4.7* indicating 'none of the above', shows the percentage of establishments in each sector that did not experience any of the specified problems in relation to skill gaps. Construction stands out as the sector least likely to suffer any impact (47 per cent of establishments) compared to 29 per cent of all establishments. Finance (21 per cent) was most likely to record an impact.

## 4.11 Impact of skill gaps by region

*Table 4.8* sets out the results relating to the perceived impact by the nine regions of England. Again, it can be seen from the row indicating 'none of the above' that about 29 per cent of all establishments did not suffer any of the designated problems arising from skill gaps. There is a fairly limited range of opinion across regions, from 26 per cent in the Eastern region to 37 per cent in the East Midlands.

Yorkshire and Humberside recorded a relatively low proportion of establishments suffering a loss of business (15 per cent compared to 23 per cent overall) whilst the East Midlands and London recorded almost twice this proportion (both 29 per cent). The London and the South East regions were also more likely to record delays developing new products and services (33 per cent compared to 24 per cent overall); London also had difficulties meeting customer service (36 per cent compared to 31 per cent overall).

## 4.12 Current impact of *internal skill gaps* and rates of sales growth

The final column of *Table 4.9* shows the relative importance of different consequences of skill gaps for establishment performance also allowing for differences in sales growth. The base for the table is all establishments reporting an internal skill gap in at least one occupational area. A shallow "U-shaped" relationship can be seen for most categories of consequence. A further feature is the significantly greater percentages in the "decreased a great deal" category than in the "increased a great deal" category. Thus, while skill gaps are associated with fast-growing establishment losing business/orders, this was a much more significant problem amongst the rapidly declining establishments. In addition, it should be remembered that there is a sample selection problem here, as establishments that closed down (which, on the basis of this evidence, may have experienced even greater skill problems) are not observed.

**TABLE 4.5**
**IMPACT OF INTERNAL SKILL GAPS BY OCCUPATION**

column percentages

| | Senior Officials/ Managers | Professional occupations | Associate professional | Admin & secretarial occupations | Skilled trades | Personal service occupations | Sales / customer service occupations | Operatives | Elementary | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Loss of business / orders to competitors | 22 | 24 | 16 | 15 | 20 | 24 | 38 | 25 | 26 | 25 |
| Delays developing new products | 29 | 40 | 38 | 25 | 22 | 22 | 14 | 25 | 18 | 24 |
| Withdrawal of services / products | 12 | 11 | 14 | 11 | 11 | 10 | 9 | 10 | 12 | 11 |
| Difficulties with customer services | 35 | 42 | 37 | 41 | 39 | 38 | 47 | 50 | 40 | 42 |
| Difficulties with quality standards | 33 | 34 | 41 | 36 | 35 | 37 | 35 | 47 | 41 | 38 |
| Increased operating costs | 33 | 32 | 34 | 31 | 36 | 28 | 29 | 55 | 35 | 36 |
| Difficulties with technical change | 29 | 26 | 28 | 35 | 26 | 16 | 22 | 31 | 15 | 25 |
| Difficulties with new working practices | 41 | 38 | 36 | 39 | 33 | 29 | 33 | 37 | 30 | 35 |
| No particular problems | 27 | 23 | 25 | 28 | 23 | 24 | 24 | 19 | 29 | 25 |
| Weighted Total | 94807 | 40926 | 40561 | 90175 | 56891 | 76252 | 117278 | 115726 | 99705 | 732322 |
| Unweighted Base | 10168 | 4411 | 3676 | 9049 | 5355 | 8609 | 10699 | 15957 | 12563 | 80488 |

Source: ESS 2001 (IFF/ IER)
Base: All internal skills gaps that were followed up: employee based measure

**TABLE 4.6**
**IMPACT OF SKILL GAPS BY SIZE OF ESTABLISHMENT**

| | Number of employees at establishment | | | | | | | | column percentages |
|---|---|---|---|---|---|---|---|---|---|
| | **1-4** | **5-24** | **25-49** | **50-99** | **100-199** | **200-499** | **500-999** | **1000+** | **Total** |
| Loss of business/orders to competitors | 19 | 26 | 26 | 27 | 26 | 21 | 21 | 23 | 24 |
| Delays developing new products | 17 | 27 | 27 | 29 | 31 | 27 | 36 | 48 | 24 |
| Withdrawing products and services | 10 | 13 | 10 | 12 | 12 | 10 | 16 | 13 | 12 |
| Difficulties meeting customer service | 20 | 34 | 42 | 45 | 47 | 48 | 49 | 54 | 31 |
| Difficulties delivering quality | 16 | 33 | 40 | 41 | 44 | 44 | 49 | 46 | 28 |
| Increased operating costs | 27 | 33 | 36 | 40 | 45 | 45 | 47 | 42 | 32 |
| Difficulties with technological change | 32 | 23 | 25 | 29 | 33 | 31 | 34 | 44 | 27 |
| Difficulties introducing new working practices | 28 | 32 | 36 | 39 | 46 | 46 | 44 | 58 | 32 |
| None of the above | 23 | 34 | 30 | 30 | 26 | 25 | 29 | 26 | 29 |
| Weighted Base | 51981 | 59487 | 14833 | 9117 | 3413 | 2583 | 498 | 236 | 142149 |
| Unweighted Base | 217 | 1277 | 1225 | 743 | 586 | 428 | 119 | 57 | 4652 |

Source: ESS2001 (IFF/IER)
Base: All Establishments with skill gaps
Note: Percentage will not run to 100 per cent since respondents could give more than one answer.

**TABLE 4.7**
**IMPACT OF SKILL GAPS BY INDUSTRIAL SECTOR**

column percentages

| | Agriculture | Manu'ring | Const' tion | Wholsale & Retail | Hotels & Rest'nts | Transport & Comms | Finance | Business Services | Public Admin | Education | Health & Social Care | Other Services | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Loss of business/orders to competitors | *3* | 22 | 20 | 31 | 34 | 34 | 45 | 19 | 16 | 16 | 8 | 19 | 24 |
| Delays developing new products | *13* | 32 | 17 | 17 | 25 | 25 | 23 | 25 | 42 | 39 | 28 | 19 | 24 |
| Withdrawing products and services | *5* | 13 | 13 | 10 | 16 | 10 | 18 | 12 | 11 | 20 | 8 | 8 | 12 |
| Difficulties meeting customer service | *17* | 34 | 36 | 31 | 39 | 31 | 42 | 26 | 51 | 35 | 30 | 27 | 31 |
| Difficulties delivering quality | *17* | 28 | 21 | 24 | 38 | 30 | 37 | 23 | 46 | 41 | 41 | 34 | 28 |
| Increased operating costs | *16* | 43 | 41 | 25 | 31 | 31 | 41 | 35 | 38 | 31 | 24 | 27 | 32 |
| Difficulties with technological change | *4* | 28 | 18 | 25 | 12 | 19 | 42 | 43 | 36 | 26 | 26 | 13 | 27 |
| Difficulties introducing new working practices | *10* | 33 | 22 | 32 | 26 | 27 | 50 | 38 | 45 | 53 | 34 | 18 | 32 |
| None of the above | *37* | 29 | 47 | 29 | 30 | 32 | 21 | 24 | 30 | 24 | 34 | 23 | 29 |
| Weighted Base | 3650 | 17299 | 9361 | 32879 | 12118 | 5524 | 4032 | 33586 | 2319 | 3725 | 8236 | 9420 | 142149 |
| Unweighted Base | *38* | 933 | 324 | 647 | 662 | 308 | 138 | 609 | 97 | 151 | 393 | 338 | 4652 |

Source: ESS2001 (IFF/IER)
Base: All establishments with skill gaps
Note: Percentage will not run to 100 per cent since respondents could give more than one answer.

**TABLE 4.8**
**IMPACT OF SKILL GAPS BY REGION**

column percentages

| | East Midlands | Eastern | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humberside | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Loss of business/orders to competitors | 29 | 25 | 29 | 22 | 20 | 20 | 22 | 26 | 15 | 23 |
| Delays developing new products | 19 | 23 | 33 | 16 | 18 | 33 | 19 | 22 | 20 | 24 |
| Withdrawing products and services | 6 | 11 | 7 | 7 | 9 | 16 | 10 | 16 | 21 | 12 |
| Difficulties meeting customer service | 25 | 32 | 36 | 29 | 30 | 30 | 35 | 35 | 19 | 31 |
| Difficulties delivering quality | 22 | 33 | 32 | 22 | 30 | 28 | 22 | 35 | 19 | 28 |
| Increased operating costs | 21 | 27 | 31 | 23 | 45 | 30 | 31 | 40 | 33 | 32 |
| Difficulties with technological change | 16 | 36 | 37 | 21 | 23 | 24 | 22 | 20 | 41 | 27 |
| Difficulties introducing new working practices | 25 | 42 | 44 | 19 | 34 | 26 | 27 | 26 | 34 | 32 |
| None of the above | 37 | 26 | 26 | 30 | 31 | 28 | 30 | 30 | 29 | 29 |
| Weighted Base | 13129 | 14615 | 22906 | 6029 | 15359 | 23406 | 20557 | 14592 | 10932 | 141525 |
| Unweighted Base | 453 | 515 | 659 | 295 | 518 | 690 | 567 | 542 | 414 | 4653 |

Source: ESS2001 (IFF/IER)
Base: All Establishments with skill gaps

**TABLE 4.9**
**IMPACT OF CURRENT SKILL GAPS AND SALES GROWTH CATEGORY**

column percentages

| Consequence | Sales Growth Category | | | | | |
|---|---|---|---|---|---|---|
| | Increased great deal | Increased a little | Stayed same | Decreased a little | Decreased great deal | All establishments |
| Loss of business/orders to competitors | 24 | 23 | 19 | 31 | 38 | 23 |
| Delay in developing new products | 25 | 26 | 27 | 28 | 31 | 24 |
| Withdrawal of products/service | 15 | 13 | 11 | 10 | 11 | 12 |
| Difficulties meeting customer service | 37 | 32 | 33 | 40 | 38 | 31 |
| Difficulties in meeting required quality | 29 | 28 | 29 | 34 | 45 | 28 |
| Increased operating costs | 35 | 32 | 31 | 37 | 41 | 32 |
| Difficulties introducing technological change | 38 | 28 | 25 | 18 | 28 | 27 |
| Difficulties introducing new work practices | 40 | 29 | 32 | 29 | 37 | 32 |
| No particular problems | 24 | 34 | 35 | 31 | 22 | 29 |
| Weighted Base | 23098 | 48665 | 27998 | 13613 | 6200 | 141525 |
| Unweighted Base | 739 | 1758 | 1115 | 511 | 166 | 4652 |

Source: ESS2001 (IFF/IER)
Base: All establishments reporting internal skill gaps

## 4.13 Market position, recruitment difficulties and skill proficiency

Respondents were asked a battery of questions where they were asked to locate themselves on a five-point scale. The dimensions on which respondents were asked to place themselves are outlined below:

- **A:** high volume producer (1) *versus* one-off or very low volume producer (5)
- **B:** producer of highly complex products/services (1) *versus* simple products or services (5)
- **C:** products/services not at all price sensitive (1) *versus* wholly price sensitive (5) (private sector only)
- **D:** cost control not critical (1) *versus* cost control is critical (5) (non-private sector only)
- **E:** competes in a premium quality product or service market (1) *versus* competes in a market for a basic or standard quality product (5) (private sector only)
- **F:** provides a highly specialist service (1) *versus* basic or standard one (5) (non-private sector only)
- **G:** provides better quality product or service than competition (1) *versus* find it hard to match quality of competitors (5).

The score given to each statement is in parentheses. In addition, respondents were asked to say how applicable the following statements were to their establishment and the industry they worked in:

- **H:** within our industry there have not been changes to the products and services offered or the way that they are delivered for a good number of years; and
- **I:** compared to other establishments within our industry we tend to lead the way in terms of developing new products, materials or techniques.

Answers to this were on a four point scale from very applicable (1) to not at all applicable (4). In the following tables – *Tables 4.10 to 4.13* – a mean score has been developed for each of the statements above. For the first battery of questions the mean is based on a five point scale, and for the two applicability questions it is based on a four point scale.

## 4.14 Market position and sales growth

The relationship between sales growth and product market position is outlined below *(see Table 4.10)*. The general picture to emerge is one of establishments experiencing a decrease in sales where they were relatively low volume producers, providing a simple product or service, price dependent or more subject to cost control and who did not see themselves as innovators in terms of leading the way in the development of new products, materials or techniques.

**TABLE 4.10**

**CURRENT PRODUCT MARKET POSITION AND SALES GROWTH**

average scores

| | Increased a great deal | Increased a little | Stayed the same | Decreased a little | Decreased a great deal | Total |
|---|---|---|---|---|---|---|
| **A: Volume**<br>1 = high volume producer<br>5 = one-off producer | | | | | | |
| Mean | 2.8 | 2.9 | 3.1 | 3.1 | 3.4 | 3.0 |
| **B: Complexity**<br>1 = highly complex product<br>5 = simple product | | | | | | |
| Mean | 2.7 | 2.6 | 3.0 | 3.0 | 2.9 | 2.8 |
| **C*: Price**<br>1 = not at all price dependent<br>5 = wholly price dependent | | | | | | |
| Mean | 2.9 | 3.0 | 3.1 | 3.4 | 3.5 | 3.1 |
| **D**: Cost Control**<br>1 = not critical<br>5 = critical | | | | | | |
| Mean | 3.8 | 3.7 | 3.7 | 4.1 | 4.2 | 3.7 |
| **E*: Market quality**<br>1 = premium product<br>5 = …… product | | | | | | |
| Mean | 2.2 | 2.4 | 2.6 | 2.8 | 2.5 | 2.5 |
| **F**: Service specialism**<br>1 = premium product<br>5 = basic product | | | | | | |
| Mean | 2.4 | 2.3 | 2.6 | 2.3 | 2.6 | 2.4 |
| **G: Quality**<br>1 = better than competitors<br>5 = difficult to keep up with competitors | | | | | | |
| Mean | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 |
| **H:** Applicability of statement: Within our industry there have not been changes to the products and services offered or the way that they are delivered for a good number of years | | | | | | |
| Mean | 2.9 | 2.9 | 2.6 | 2.8 | 2.7 | 2.8 |
| **I:** Applicability of statement: Compared to other establishments within our industry we tend to lead the way in terms of developing new products, materials or techniques | | | | | | |
| Mean | 2.3 | 2.6 | 2.8 | 2.9 | 2.9 | 2.7 |
| | | | | | | |
| *Unweighted Base* | *3712* | *9859* | *6878* | *2590* | *751* | *27031* |
| *Weighted Base* | *258814* | *618816* | *612665* | *218045* | *111884* | *2058713* |

Source: ESS2001 (IFF/IER)

Base: All establishments

Note: Statements marked * asked of private sector establishments only; statements marked ** asked of non-private sector establishments only.

**TABLE 4.11**

**CURRENT PRODUCT MARKET POSITION BY INDUSTRIAL SECTOR**

average scores

| | Agriculture | Mining & Quarrying | Manu'ring | Electricity & Water | Const'tion | Wholsale & Retail | Hotels & Rest'nts | Transport & Comms | Finance | Business Services | Public Admin | Education | Health & Social Work | Other Services | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A: Volume**<br>1 = high volume producer<br>5 = one-off producer | | | | | | | | | | | | | | | |
| Mean | 2.7 | 2.1 | 3.3 | 2.4 | 3.2 | 3.0 | 2.7 | 2.8 | 2.6 | 3.3 | 2.4 | 2.3 | 2.3 | 2.9 | 3.0 |
| **B: Complexity**<br>1 = highly complex product<br>5 = simple product | | | | | | | | | | | | | | | |
| Mean | 3.3 | 3.1 | 2.6 | 2.0 | 2.8 | 3.0 | 3.5 | 3.1 | 2.7 | 2.6 | 2.2 | 2.2 | 2.6 | 3.1 | 2.8 |
| **C*: Price**<br>1 = not at all price dependent<br>5 = wholly price dependent | | | | | | | | | | | | | | | |
| Mean | 3.5 | 3.9 | 3.0 | 2.9 | 3.3 | 3.3 | 3.1 | 3.1 | 2.9 | 2.8 | - | 2.8 | 2.5 | 2.8 | 3.1 |
| **D**: Cost Control**<br>1 = not critical<br>5 = critical | | | | | | | | | | | | | | | |
| Mean | - | - | - | - | - | - | - | - | - | - | 3.8 | 3.5 | 3.8 | 3.5 | 3.7 |
| **E*: Market quality**<br>1 = premium product<br>5 = basic product | | | | | | | | | | | | | | | |
| Mean | 2.3 | 2.4 | 2.3 | 2.3 | 2.5 | 2.7 | 3.0 | 2.7 | 2.5 | 2.3 | - | 2.0 | 2.0 | 2.6 | 2.5 |
| **F**:** Service specialism<br>1 = premium product<br>5 = …… product | | | | | | | | | | | | | | | |
| Mean | - | - | - | - | - | - | - | - | - | - | 2.0 | 1.8 | 2.5 | 3.1 | 2.4 |
| **G: Quality**<br>1 = better than competitors<br>5 = difficult to keep up with competitors | | | | | | | | | | | | | | | |
| Mean | 1.9 | 2.0 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 | 1.8 | 1.9 | 1.9 | 1.7 | 1.8 | 2.0 | 1.9 |
| Applicability of statement: Within our industry there have not been changes to the products and services offered or the way that they are delivered for a good number of years 1 = very applicable 4 = not at all applicable | | | | | | | | | | | | | | | |
| Mean | 2.4 | 2.8 | 2.6 | 3.2 | 2.5 | 2.8 | 2.6 | 2.5 | 3.1 | 3.0 | 3.4 | 3.3 | 3.0 | 2.7 | 2.8 |
| Applicability of statement: Compared to other establishments within our industry we tend to lead the way in terms of developing new products, materials or techniques 1 = very applicable 4 = not at all applicable | | | | | | | | | | | | | | | |
| Mean | 3.0 | 2.9 | 2.5 | 2.2 | 2.9 | 2.8 | 2.7 | 2.7 | 2.6 | 2.6 | 2.4 | 2.2 | 2.3 | 2.6 | 2.7 |
| | | | | | | | | | | | | | | | |
| *Unweighted Base)* | *329* | *61* | *4215* | *61* | *2364* | *3361* | *2991* | *1872* | *820* | *4140* | *545* | *1437* | *2461* | *2374* | *27031* |
| *Weighted Base* | *65376* | *3238* | *170423* | *1676* | *212480* | *495566* | *128155* | *84560* | *8866* | *514314* | *19563* | *46032* | *96370* | *183022* | *2058713* |

Source: ESS2001 (IFF/IER)
Base: All establishments
Note: (a) Statements marked * asked of private sector establishments only; statements marked ** asked of non-private sector establishments only.
(b) Respondents were asked to classify themselves as …. private or non-private sector

**TABLE 4.12**

**CURRENT PRODUCT MARKET POSITION BY INDUSTRIAL REGION**

average scores

| | Eastern | East Midlands | London | North East | North West | South East | South West | West Midlands | Yorks & Humbs | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **A: Volume**<br>1 = high volume producer<br>5 = one-off producer | | | | | | | | | | |
| Mean | 2.9 | 2.8 | 3.1 | 2.9 | 3.2 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| **B: Complexity**<br>1 = highly complex product<br>5 = simple product | | | | | | | | | | |
| Mean | 2.9 | 2.9 | 2.8 | 2.7 | 2.9 | 2.7 | 2.8 | 2.8 | 2.9 | 2.8 |
| **C*: Price**<br>1 = not at all price dependent<br>5 = wholly price dependent | | | | | | | | | | |
| Mean | 3.1 | 3.2 | 3.0 | 3.3 | 3.0 | 3.0 | 3.1 | 3.0 | 3.2 | 3.1 |
| **D**: Cost Control**<br>1 = not critical<br>5 = critical | | | | | | | | | | |
| Mean | 3.8 | 3.4 | 3.4 | 3.7 | 3.6 | 3.9 | 4.0 | 3.4 | 3.9 | 3.7 |
| **E*: Market quality**<br>1 = premium product<br>5 = basic product | | | | | | | | | | |
| Mean | 2.5 | 2.6 | 2.6 | 2.7 | 2.5 | 2.4 | 2.5 | 2.6 | 2.6 | 2.5 |
| **F**: Service specialism**<br>1 = premium product<br>5 = basic product | | | | | | | | | | |
| Mean | 2.1 | 2.4 | 2.2 | 2.3 | 2.7 | 2.3 | 2.6 | 2.7 | 2.7 | 2.4 |
| **G: Quality**<br>1 = better than competitors<br>5 = difficult to keep up with competitors | | | | | | | | | | |
| Mean | 1.8 | 2.0 | 1.9 | 2.0 | 1.9 | 1.9 | 1.9 | 1.8 | 2.0 | 1.9 |
| **H:** Applicability of statement: Within our industry there have not been changes to the products and services offered or the way that they are delivered for a good number of years | | | | | | | | | | |
| Mean | 2.7 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.7 | 2.8 | 2.8 |
| **I:** Applicability of statement: Compared to other establishments within our industry we tend to lead the way in terms of developing new products, materials or techniques | | | | | | | | | | |
| Mean | 2.6 | 2.6 | 2.6 | 2.5 | 2.9 | 2.7 | 2.6 | 2.6 | 2.7 | 2.7 |
| *Unweighted Base* | *3035* | *2560* | *4011* | *1999* | *3109* | *3908* | *2916* | *2816* | *2677* | *27031* |
| *Weighted Base* | *232823* | *158934* | *380237* | *66197* | *246821* | *373911* | *226182* | *194483* | *179126* | *2058713* |

Base: All private sector establishments
Source: ESS2001 (IFF/IER)
Note: Statements marked * asked of private sector establishments only; statements marked ** asked of non-private sector establishments only.

Product market position can reveal much about an establishment's skill needs and consequent skill-shortage vacancies or skill gaps[1]. *Table 4.13* compares the product market position to reported hard-to-fill and skill shortage vacancies, and to skill gaps.

**TABLE 4.13**
**CURRENT PRODUCT MARKET POSITION BY SKILLS DEFICIENCIES**

average scores

| | Hard-to-fill vacancies | | Skill-shortage vacancies | | Skills gaps | | | Total |
|---|---|---|---|---|---|---|---|---|
| **A: Volume**<br>1 = high volume producer<br>5 = one-off producer | Yes | No | Yes | No | All proficient | Level 1 | Level 2 | |
| Mean | 2.7 | 3.0 | 2.7 | 3.0 | 3.1 | 2.8 | 2.9 | 3.0 |
| **B: Complexity**<br>1 = highly complex product<br>5 = simple product | | | | | | | | |
| Mean | 2.5 | 2.9 | 2.3 | 2.9 | 2.9 | 2.7 | 2.7 | 2.8 |
| **C*: Price**<br>1 = not at all price dependent<br>5 = wholly price dependent | | | | | | | | |
| Mean | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.2 | 3.1 |
| **D**: Cost Control**<br>1 = not critical<br>5 = critical | | | | | | | | |
| Mean | 3.2 | 3.8 | 2.6 | 3.8 | 3.7 | 3.7 | 3.9 | 3.7 |
| **E*: Market quality**<br>1 = premium product market<br>5 = basic product market | | | | | | | | |
| Mean | 2.2 | 2.5 | 2.1 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| **F**: Service specialism**<br>1 = specialist service<br>5 = basic service | | | | | | | | |
| Mean | 2.0 | 2.5 | 1.9 | 2.5 | 2.5 | 2.2 | 2.2 | 2.4 |
| **G: Quality**<br>1 = better than competitors<br>5 = difficult to keep up with competitors | | | | | | | | |
| Mean | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 |
| Applicability of statement: Within our industry there have not been changes to the products and services offered or the way that they are delivered for a good number of years | | | | | | | | |
| Mean | 3.0 | 2.8 | 2.9 | 2.8 | 2.8 | 2.9 | 2.7 | 2.8 |
| Applicability of statement: Compared to other establishments within our industry we tend to lead the way in terms of developing new products, materials or techniques | | | | | | | | |
| Mean | 2.3 | 2.7 | 2.2 | 2.7 | 2.7 | 2.5 | 2.5 | 2.7 |
| | | | | | | | | |
| *Unweighted Base* | *4600* | *22431* | *2033* | *24998* | *12421* | *9674* | *4652* | *27031* |
| *Weighted Base* | *154529* | *1904184* | *75081* | *1983632* | *1579561* | *328566* | *141525* | *2058713* |

Source: ESS2001 (IFF/IER)
Base: All establishments
Note: (a) Statements marked * asked of private sector establishments only; statements marked ** asked of non-private sector establishments only.
(b) Level 1 skill gaps refer to all establishments where some staff in at least one occupation are not fully proficient, but where no skills gaps are reported using the more specific measure; level 2 skill gaps refer to all establishments where less than nearly all staff are fully proficient (internal skills gaps - see Chapter 3 for details).

The results reveal that, in general, establishments that experienced either hard-to-fill vacancies, skill-shortage vacancies, or skill gaps tended to have the following characteristics:

- high volume producers;
- producers of complex products or services;
- providers of a specialist service (public sector establishments)

[1] D. Bosworth, R. Davies, and R. Wilson, *Employers Skill Survey 1999: Econometric Report*, Department for Education and Employment, forthcoming 2001; T. Hogarth and R. Wilson, *Employers Skill Survey 1999: Synthesis Report*, Department for Education and Employment, forthcoming 2001

? lead the way in the market in terms of developing new products, materials or techniques.

Furthermore, establishments in the private sector that had experienced either hard-to-fill vacancies or skill-shortage vacancies were more likely to compete in a premium quality product or service market.

In addition, cost control was seen as critical to public sector establishments with skill gaps but not to those that have experienced either hard-to-fill vacancies or skill-shortage vacancies. Establishments that had experienced such vacancies were also more likely to have experienced change in products or service delivery whereas those with skill gaps were less likely.

## 4.14 Plans to improve quality and efficiency

The previous chapter illustrated how many establishments anticipated future skill needs in relation to the development of new products and services. This can be addressed a little further with respect to plans to improve the quality of goods or services produced and the efficiency of the production process. The evidence points towards those establishments whose sales/budget had increased a great deal as being more likely to improve both quality and efficiency *(see Table 4.15)*. Whereas 68 per cent of establishments whose sales had increased a great deal anticipated improvements in efficiency and quality, 56 per cent of establishments whose sales had decreased a great deal anticipated such change. Those that experienced decreases either had no plans to improve quality or efficiency or to have plans to improve one or other rather than both. Establishments that experienced no change in their sales over the last 12 months were the most likely to respond that they anticipated no change.

From *Table 4.15* it is apparent that a majority of establishments anticipated improvements in quality and efficiency. If one accepts that this is an indicator of a more dynamic organisation, one might expect to see this reflected in the number of skill-shortage vacancies or skill gaps if these establishments recognise that there is a skills component to meeting their business strategy. This is broadly confirmed by the data which reveals that establishments with either skill-shortage vacancies or skill gaps were more likely to report that they had plans to improve both the quality and the efficiency with which they produced their goods or services *(see Table 4.16)*. Around 81 per cent of establishments with skill-shortage vacancies anticipated changes to efficiency and quality compared to 57 per cent of those with no skill-shortage vacancies. Similarly, 68 per cent of those with skill gaps anticipated such change compared to 57 per cent with none. This finding is in line with the more detailed analysis of ESS1999 which revealed that more dynamic organisations were, other things being equal, more likely to report skill deficiencies[2].

[2] D. Bosworth, R. Davies, and RA Wilson, *Employers Skill Survey: Econometric Report*, DfES Research Series, forthcoming, 2001 ; T. Hogarth and RA Wilson, *Employers Skill Survey: Synthesis Report*, DfES, forthcoming, 2001

**TABLE 4.15**
**QUALITY, EFFICIENCY AND SALES TURNOVER**

column percentages

| | Increased great deal | Increased a little | Stayed same | Decreased a little | Decreased great deal | Don't' know | Total |
|---|---|---|---|---|---|---|---|
| Plans to improve quality of existing products and efficiency with which goods/services produced | 68 | 66 | 49 | 47 | 56 | 59 | 58 |
| Plans to improve quality only | 8 | 7 | 7 | 9 | 5 | 5 | 7 |
| Plans to improve efficiency only | 10 | 7 | 11 | 12 | 17 | 8 | 10 |
| No plans to improve efficiency or quality | 14 | 20 | 33 | 31 | 22 | 28 | 25 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Weighted Base | 258814 | 618816 | 612665 | 218045 | 111884 | 169791 | 2058713 |
| Unweighted Base | 3712 | 9859 | 6878 | 2590 | 751 | 2924 | 27031 |

Base: All establishments
Source: ESS2001 (IFF/IER)

**TABLE 4.16**
**QUALITY, EFFICIENCY AND SKILL DEFICIENCIES**

Column percentages

| | No skill gaps | Skill gaps (narrowdefinition) | Whether have any skill-shortage vacancies | | Total |
|---|---|---|---|---|---|
| | | | Yes | No | |
| Plans to improve quality of existing products and efficiency with which goods/services produced | 55 | 68 | 81 | 57 | 58 |
| Plans to improve quality only | 7 | 5 | 4 | 7 | 7 |
| Plans to improve efficiency only | 10 | 9 | 8 | 10 | 10 |
| No plans to improve efficiency or quality | 25 | 17 | 7 | 26 | 25 |
| Total | 100 | 100 | 100 | 100 | 100 |
| Weighted Base | 1579561 | 141525 | 75081 | 1983632 | 2058713 |
| Unweighted Base | 12421 | 4652 | 2033 | 24998 | 27031 |

Base: All establishments
Source: ESS2001 (IFF/IER)

## 4.15 Conclusion

This chapter has considered links between skill deficiencies and economic performance. Focussing on those skill deficiencies that are perceived to have an impact on current establishment performance, the effect on the establishment's performance is examined for those reporting an adverse impact. A substantial minority of all establishments report such problems.

Where skill gaps were reported they had an impact on an establishment's performance, especially in relation to customer care, quality standards, and operating costs. A substantial proportion of establishments with skill gaps reported that this had led to a loss of business to competitors. Moreover, in many others, if the impact of such problems was to lower customer care and quality standards and increase operating costs, there will be, ultimately, an even greater impact on the volume of business undertaken.

ESS2001 provides a substantial body of evidence that skills have an impact on organisational performance. Both skill-shortage vacancies and skill gaps were reported to have led to a loss of business/order to competitors, delays developing new products and services, difficulties with customer service, increased operating costs, and so on. These are all potentially serious impacts on business performance brought about by either an external or internal shortage of skills. But this tells only part of the story. Much has been made of the existence of latent skill gaps. That is, where establishments fall short of what might be considered good or best business practice and is reflected in relatively low skill levels and relatively poor business performance, even though there is no report of recruitment problems or skill gaps. This is akin to the notion of a low-skill equilibrium.

Estimating the volume of latent skill gaps proves to be exceedingly difficult and is outside the scope this report[3], but some *prima facie* evidence is available. *Summarily, where establishments' product market positions were characterised as producing low volume, basic, price sensitive goods and services they were less likely to report skill-shortage vacancies or internal skill gaps*. Establishments experiencing changes to the way their products or services are offered are more likely to report skill deficiencies, as are those who see themselves as innovators in their industry. Similarly, if establishments had no plans to improve either the quality of their goods and services or the efficiency with which they produced them, they were less likely to report skill-shortage vacancies or skill gaps. There may be many reasons why establishments become bogged down in relatively low value-added segments of the market or have no have plans to improve the quality and efficiency of their product range and production systems that are unrelated to skills. But at the same time it is inconceivable that there is not a skills dimension to this conundrum.

Indubitably, direct responses to the impact of skill deficiencies on business performance under-report how much skill deficiencies constrain economic performance.

[3] For a method of calculating latent skill gaps see D. Bosworth, R. Davies, and RA Wilson, *Employers Skill Survey: Econometric Report*, Department for Education and Skills, forthcoming, 2001

# 5. TRAINING

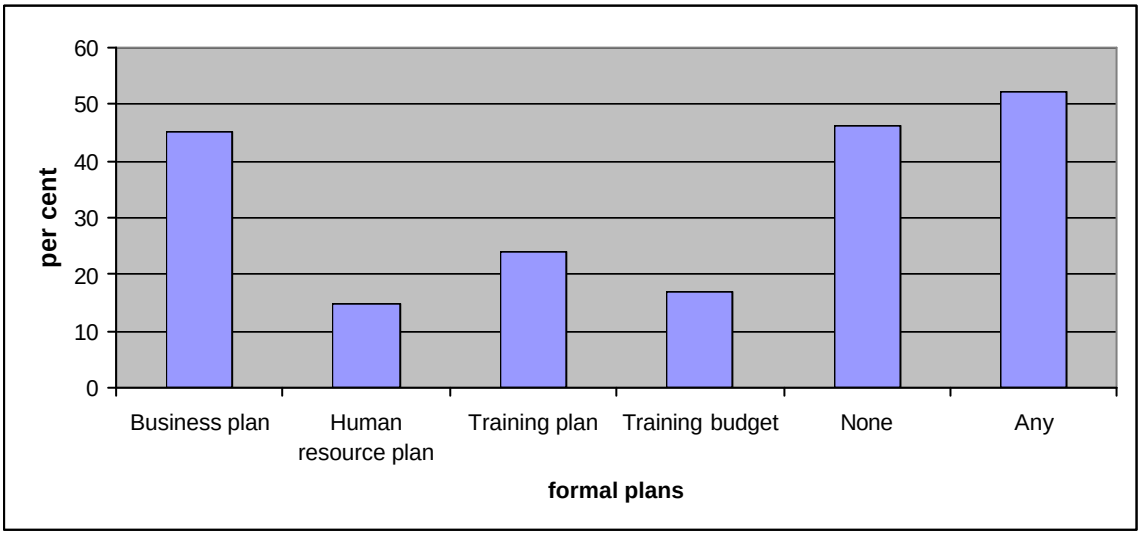
## 5.1 Introduction

This chapter looks at the provision of training within establishments and the existence of formal human resource practices related to training, such as training plans. The emphasis is very much on off-the-job training. Given that so much training is conducted on-the-job one must be cautious about inferring too much about the incidence of training in the economy as a whole from the ESS2001 data[1].

## 5.2 Formal human resource planning

The starting point for the analysis is the type of formal arrangements that establishments have in place to deliver training and related human resource practices *(see Figure 5.1)*. Though a substantial proportion of establishments had a business plan (45 per cent), relatively few had a human resource plan related to forecasting future skill needs (15 per cent), a training plan that specified the types of training employees needed over the coming year (24 per cent), or a training budget (17 per cent). Approximately 46 per cent of establishments had none of these formal arrangements in place, but over half had at least one of these arrangements (52 per cent). The degree of formality regarding training arrangements is not necessarily an indicator of training volume – this is addressed in subsequent sections – but it does indicate the degree of planning taking place.

**FIGURE 5.1**
**FORMAL PLANS BY ESTABLISHMENTS**




Base: All establishments
Source: ESS2001 (IER/IFF)

The incidence of each type of formal arrangement increases with the size of establishment. For instance, only 15 per cent of establishments with 1-4 employees had a training plan compared to 79 per cent of those with 1000 or more employees. The existence of almost any kind of plan was much more common in the public sector. Compared to the average of 24 per cent of establishments having a training plan, 62 per cent of establishments in public administration had such a plan, 63 per cent in education, and 50 per cent in health and social work[2].

1 *see* D. Spilsbury, IFF Research, *Learning and Training at Work 2000*, DfES Research Series, 2001.
2 It should be noted that there are private sector organisations in the education and health and social work sectors.

The relationship between formal planning and the existence of skill deficiencies is outlined in *Table 5.1*. Because the incidence of skill deficiencies and the existence of formal plans are co-linear with size of establishment some care is required in the interpretation of the data. Hard-to-fill vacancies, skill shortage vacancies and skill gaps are associated with a higher incidence of formal planning. For example, 43 per cent of establishments with skill-shortage vacancies had a training plan compared to 24 per cent that did not. Similarly, 20 per cent of establishments where all staff were fully proficient had a training plan, compared to 37 per cent of all establishments where less than nearly all staff were fully proficient[3]. One may speculate that formal planning is part of the process that identifies more challenging skill needs for an establishment, hence the greater incidence of skill deficiencies.

[3] Skill gaps: specific definition.

**TABLE 5.1**
**FORMAL PLANS BY SKILL DEFICIENCIES**

column percentages[1]

| | Hard-to-fill vacancies | | Skill-shortage vacancies | | Skills gaps | | | Total |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Narrow measure | Broad measure only | All proficient | |
| Business plan | 65 | 44 | 75 | 44 | 55 | 56 | 42 | 45 |
| Human resource plan | 32 | 14 | 39 | 15 | 25 | 26 | 13 | 16 |
| Training plan | 46 | 23 | 42 | 24 | 36 | 40 | 20 | 24 |
| Training budget | 36 | 16 | 35 | 46 | 28 | 30 | 14 | 18 |
| None | 22 | 47 | 16 | 46 | 34 | 31 | 49 | 45 |
| Any | 78 | 51 | 84 | 52 | 66 | 68 | 49 | 53 |
| Weighted Base | 154316 | 1904398 | 76438 | 1982276 | 142148 | 329201 | 1578564 | 2058713 |
| Unweighted Base | 4600 | 22431 | 2033 | 24998 | 4652 | 9674 | 12421 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

Note: (1) Column percentages sum to more than 100 because respondents could give multiple answers.
(2) Level 1 refers to all establishments where some staff in at least one occupation are not fully proficient, but where no skills gaps are reported using the more specific measure
(3) Level 2 refers to all establishments where less than nearly all staff are fully proficient (see Chapter 3 for details).

## 5.3 Incidence of training

Approximately 35 per cent of establishments funded or arranged off-the-job training. On average, establishments provided around one fifth of their staff with off-the-job training. This is somewhat misleading as the distribution of the proportion of staff receiving off-the-job training is bi-polar with a majority of establishments (63 per cent) reporting that they provided no off-the-job training, and 15 per cent reporting that where it was delivered, it was to all staff.

Another way of looking at the distribution of off-the-job training is by the proportion of staff in receipt of training in just those establishments who provide it *(see Figure 5.2)*. Here it is apparent that around 41 per cent of establishments provided off-the-job training to all staff, and 16 per cent to between 1-9 per cent of their staff.

Whether off-the-job training was provided was related to the number of employees engaged at the establishment *(see Table 5.2)*. Whereas 74 per cent of establishments with 1-4 employees provided no off-the-job training, the equivalent figure for those employing 1000 employees was just 4 per cent. In fact the data reveal that the proportion of staff receiving no training declines as the number of employees increases.

The incidence of off-the-job training by industrial sector reveals a number of patterns *(see Table 5.3)*. Sectors that were least likely to provide off-the-job training were agriculture (73 per cent provided no off-the-job training), construction (71 per cent), wholesale/retail (71 per cent), and transport/communication (71 per cent). The sectors which were most likely to provide off-the-job training were public administration (only 23 per cent of establishments had provided no off-the-job training), education (20 per cent), and health and social work (32 per cent). These sectors - which comprise mainly public sector organisations - stand out quite substantially from all other sectors in the low proportion of establishments that provided no off-the-job training.

**FIGURE 5.2**
**PROPORTION OF STAFF RECEIVING OFF-THE-JOB TRAINING**
**(ESTABLISHMENTS PROVIDING OFF-THE-JOB TRAINING)**

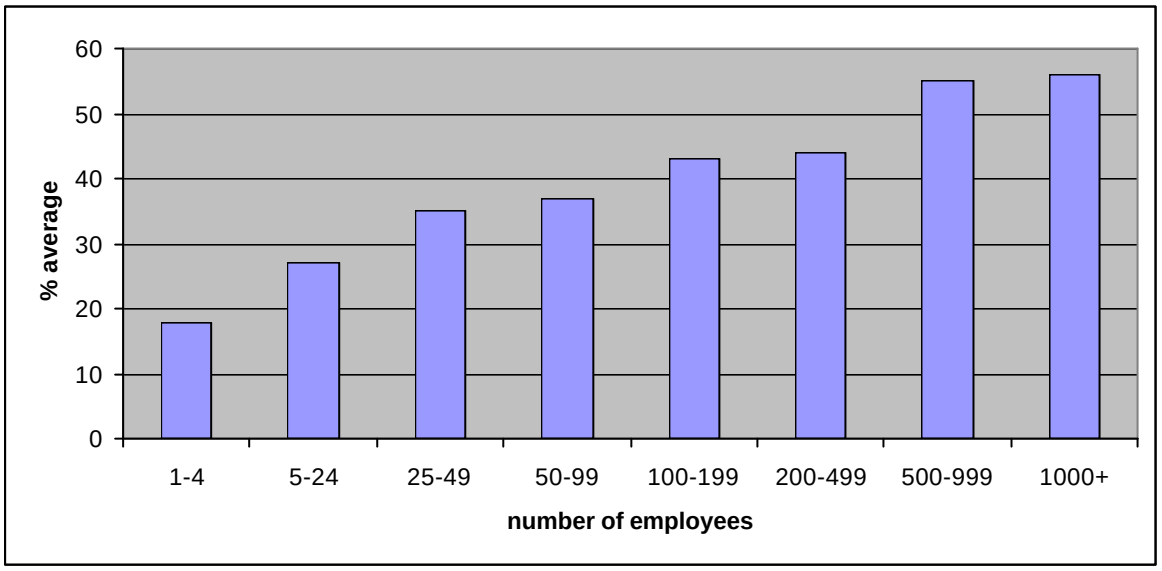

Base: All establishments providing off-the-job training
Source: ESS2001 (IER/IFF)

Establishments in the East Midlands were most likely to provide training (57 per cent), whereas establishments in the Eastern and Yorkshire/Humberside regions were least likely

to provide off-the-job training (67 per cent). Overall, however, there was limited regional variation in the incidence of off-the-job training *(see Table 5.4)*.

Overall, where establishments reported a skill deficiency they were more likely to engage in training and train a greater proportion of their staff, compared to establishments that reported no skill deficiencies (*see Table 5.5*). For example, 39 per cent of establishments with skill-shortage vacancies reported that they had not provided off-the-job training to any staff over the last 12 months, compared to 64 per cent that had no such vacancies. On average, establishments with skill-shortage vacancies had trained 40 per cent of their workforce, compared to 21 per cent of those that reported no skill-shortage vacancies.

**FIGURE 5.3**
**AVERAGE PROPORTION OF STAFF RECEIVING TRAINING BY SIZE OF ESTABLISHMENT**




Base: All establishments
Source: ESS2001 (IER/IFF)

**TABLE 5.2**

**PROPORTION OF STAFF RECEIVING OFF-THE-JOB TRAINING BY SIZE OF ESTABLISHMENT**

column percentages

| % of staff receiving off-the-job training | 1-4 | 5-24 | 25-49 | 50-99 | 100-199 | 200-499 | 500-999 | 1000+ | Total |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 74 | 41 | 21 | 15 | 11 | 10 | 5 | 4 | 63 |
| 1-9 | 4 | 11 | 13 | 16 | 13 | 11 | 7 | 4 | 6 |
| 10-19 | * | 7 | 14 | 16 | 13 | 11 | 10 | 10 | 3 |
| 20-29 | 1 | 8 | 11 | 10 | 12 | 11 | 9 | 11 | 3 |
| 30-39 | 1 | 4 | 5 | 5 | 6 | 7 | 7 | 5 | 2 |
| 40-49 | * | 2 | 2 | 3 | 4 | 4 | 3 | 5 | 1 |
| 50-99 | 4 | 13 | 19 | 22 | 25 | 24 | 32 | 37 | 7 |
| 100 | 16 | 14 | 15 | 15 | 18 | 23 | 26 | 24 | 15 |
| Don't know | 1 | 3 | 5 | 7 | 10 | 12 | 15 | 20 | 2 |
| Mean | 18.6 | 27.1 | 34.9 | 36.9 | 42.6 | 46.5 | 55.4 | 56.9 | 21.7 |
| Weighted base | 1481191 | 430708 | 75978 | 41507 | 15493 | 10928 | 1895 | 1014 | 2058711 |
| Unweighted base | 3701 | 8766 | 6151 | 3306 | 2605 | 1799 | 456 | 247 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

**TABLE 5.3**

**PROPORTION OF STAFF RECEIVING OFF-THE-JOB TRAINING BY INDUSTRY**

column percentages

| % of staff receiving off-the-job training | Agri – culture | Manu – facturing | Construc – tion | Wholesal e/retail/re pair | Hotels & Restau-rants | Trans/ Comms | Finance | Business Services | Public Admin | Educa-tion | Health & Social Work | Other Services | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 73 | 67 | 71 | 71 | 68 | 71 | 50 | 59 | 23 | 20 | 32 | 66 | 63 |
| 1-9 | 3 | 8 | 3 | 6 | 6 | 4 | 6 | 5 | 6 | 8 | 11 | 7 | 6 |
| 10-19 | 2 | 5 | 1 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 4 | 1 | 3 |
| 20-29 | 3 | 5 | 2 | 3 | 3 | 3 | 6 | 5 | 6 | 5 | 4 | 2 | 3 |
| 30-39 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 2 | 1 | 2 |
| 40-49 | * | 1 | * | * | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 1 |
| 50-99 | 6 | 5 | 4 | 5 | 4 | 6 | 10 | 7 | 14 | 22 | 12 | 5 | 7 |
| 100 | 11 | 6 | 15 | 10 | 10 | 8 | 18 | 22 | 33 | 27 | 30 | 16 | 15 |
| Don’t know | * | 2 | 1 | 1 | 3 | 3 | 3 | 2 | 7 | 7 | 3 | 1 | 2 |
| mean | 15.8 | 12.1 | 19.5 | 14.7 | 15.6 | 14.2 | 28.7 | 27.6 | 51.6 | 50.7 | 42.2 | 20.2 | 21.5 |
| Weighted base | 65376 | 170423 | 212480 | 495566 | 128155 | 84560 | 37940 | 514314 | 19563 | 46032 | 96370 | 183022 | 2058713 |
| Unweighted base | 329 | 4215 | 2364 | 3361 | 2991 | 1872 | 820 | 4140 | 545 | 1437 | 2461 | 2374 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

**TABLE 5.4**
**PROPORTION OF STAFF RECEIVING OFF-THE-JOB TRAINING BY REGION**

column percentages

| % of staff receiving off-the-job training | Eastern | East Midlands | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humber - side | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 67 | 57 | 63 | 61 | 65 | 64 | 64 | 59 | 67 | 63 |
| 1-9 | 5 | 6 | 5 | 10 | 5 | 5 | 7 | 8 | 7 | 6 |
| 10-19 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| 20-29 | 3 | 4 | 2 | 3 | 3 | 3 | 2 | 4 | 3 | 3 |
| 30-39 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 |
| 40-49 | 1 | 1 | 1 | 11 | 1 | 1 | 1 | 1 | 1 | 1 |
| 50-99 | 7 | 6 | 7 | 6 | 6 | 7 | 7 | 7 | 6 | 7 |
| 100 | 12 | 18 | 17 | 11 | 14 | 16 | 15 | 16 | 12 | 15 |
| Don't know | 1 | 3 | 1 | 2 | 3 | 1 | 1 | 3 | 1 | 2 |
| Mean | 18.9 | 25.9 | 23.2 | 18.7 | 20.2 | 22.1 | 21.2 | 23.0 | 17.4 | 21.5 |
| Weighted base | 232823 | 158934 | 380237 | 66197 | 246821 | 373911 | 226182 | 194483 | 179126 | 2058713 |
| Unweighted base | 3035 | 2560 | 4011 | 1999 | 3109 | 3908 | 2916 | 2816 | 2677 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

**TABLE 5.5**
**PROPORTION OF STAFF RECEIVING OFF-THE-JOB TRAINING BY SKILL DEFICIENCIES**

column percentages

| % of staff receiving off-the-job training | Hard-to-fill vacancies | | Skill-shortage vacancies | | Skills gaps | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | All proficient | Level 1[1] | Level 2[2] | |
| 0 | 42 | 65 | 39 | 64 | 69 | 44 | 49 | 63 |
| 1-9 | 6 | 6 | 6 | 6 | 5 | 8 | 9 | 6 |
| 10-19 | 6 | 2 | 6 | 3 | 1 | 6 | 7 | 3 |
| 20-29 | 5 | 3 | 4 | 3 | 2 | 7 | 6 | 3 |
| 30-39 | 3 | 2 | 3 | 2 | 1 | 4 | 3 | 2 |
| 40-49 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 1 |
| 50-99 | 10 | 4 | 3 | 4 | 4 | 11 | 11 | 7 |
| 100 | 22 | 1 | 1 | 1 | 16 | 15 | 11 | 15 |
| Don't know | 4 | 0 | 1 | 1 | 1 | 3 | 3 | 2 |
| Mean | 34.6 | 20.4 | 40.3 | 20.8 | 20.1 | 27.8 | 23.0 | 21.5 |
| Weighted Base | 154529 | 1904184 | 75081 | 1983632 | 1579561 | 328566 | 141525 | 2058713 |
| Unweighted Base | 4600 | 22431 | 2033 | 24998 | 12421 | 9674 | 4652 | 27031 |

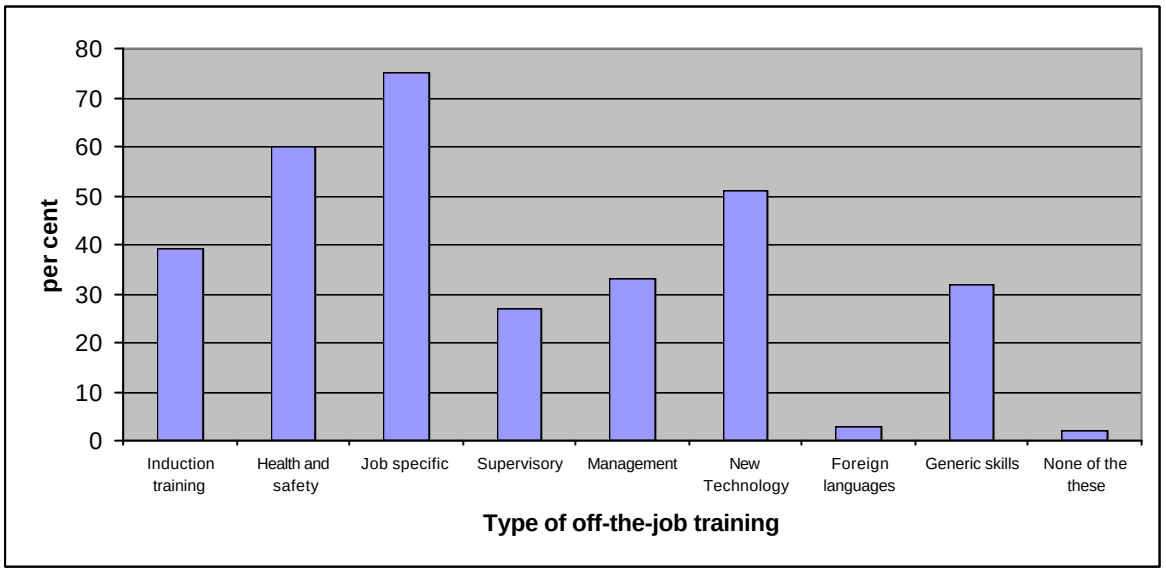
Base: All establishments
Source: ESS2001 (IER/IFF)

Note: (1) Level 1 refers to all establishments where some staff in at least one occupation are not fully proficient, but where no skills gaps are reported using the more specific measure.
(2) Level 2 refers to all establishments where less than nearly all staff are fully proficient (see Chapter 3 for details).

## 5.4 Type of training

The two most common types of off-the-job training provided by establishments was 'job specific' (75 of establishments providing off-the-job training) and health and safety (60 per cent) – *(see Figure 5.4)*. The frequency with which 'job specific' training was mentioned may suggest that employers are unwilling to train staff in those skills that are more easily transferable. Nevertheless, around 32 per cent of establishments had provided formal off-the-job training in generic skills which, arguably, are more transferable than job specific ones.

**FIGURE 5.4**
**TYPE OF-THE-JOB TRAINING PROVIDED**




Base: All establishments providing off-the-job training
Source: ESS2001 (IER/IFF)

The incidence of each type of training provided increases in line with the number of employees *(see Table 5.6)*. In areas such as induction training, supervisory training, management training, or generic skills training the differences are quite marked. For instance, whereas just 22 per cent of establishments with 1-4 employees provided management training, 83 per cent of establishments with 1000 or more employees did so. A majority of establishments with over 50 employees provided each type of designated training (except for foreign language training).

The results by industry reveal the following (*see Table 5.6A*):

- induction training was mentioned most often in the finance, public administration, education, and health and social care, and least often in construction and business services;
- health and safety training was most frequently cited in agriculture, hotels/restaurants, public administration, and education, and least often in business services;
- there was more limited spread by sector in relation to job specific training, but a higher than average proportion of establishments in finance, public administration, and education reported that they provided this type of training;

- supervisory and management training were most frequently cited in finance, public administration, education, health and social care. A relatively low proportion of establishments in agriculture and construction engaged in this type of training;
- training in new technology was mentioned most often in finance, public administration, and education
- foreign language training was mentioned by few respondents in any sector;
- generic skills training was most commonly mentioned in hotels/restaurants, finance, public administration, education, health and social care.

In large part the type of training provided is simply a reflection of the incidence of training. The more employers engage in training, the more likely they will do so across all designated areas of training. Hence, the overall incidence of training is high in public administration and the incidence of each type of designated training is also relatively high.

There are few substantial differences by region, except that the West Midlands stands out as having a relatively high proportion of establishments that had engaged in either induction or health and safety training.

Establishments which reported hard-to-fill or skill-shortage vacancies or had internal skill gaps were all much more likely to have engaged in any of the designated types of training *(see Table 5.7)*. The only exception to this was job specific training in relation to skill gaps where the differences between establishments with and without skill gaps was small. Again, this is consistent with the finding that the overall incidence of training was higher in those establishments with skill deficiencies.

**TABLE 5.6**
**TYPE OF OFF-THE-JOB TRAINING BY SIZE OF ESTABLISHMENT**

column percentages

| | 1-4 | 5-24 | 25-49 | 50-99 | 100-199 | 200-499 | 500-999 | 1000+ | Total |
|---|---|---|---|---|---|---|---|---|---|
| Induction training | 26 | 47 | 60 | 65 | 71 | 76 | 83 | 84 | 39 |
| Health & Safety or First Aid | 46 | 70 | 83 | 86 | 88 | 89 | 92 | 91 | 60 |
| Job specific training | 71 | 74 | 82 | 83 | 86 | 90 | 90 | 94 | 74 |
| Supervisory training | 15 | 32 | 47 | 52 | 64 | 73 | 77 | 84 | 27 |
| Management training | 21 | 37 | 53 | 59 | 68 | 79 | 83 | 88 | 33 |
| Training in new technology | 45 | 52 | 61 | 66 | 75 | 79 | 87 | 89 | 51 |
| Training in other languages | 3 | 2 | 3 | 7 | 11 | 13 | 25 | 21 | 3 |
| Soft/generic skills training | 23 | 38 | 44 | 51 | 60 | 71 | 81 | 86 | 32 |
| None of these | 2 | 2 | 1 | 1 | 1 | * | * | 0 | 2 |
| Don't know | * | * | * | * | * | * | * | 2 | * |
| Weighted base | 386479 | 253188 | 59580 | 35440 | 13775 | 9787 | 1784 | 957 | 760992 |
| Unweighted base | 1239 | 5290 | 4771 | 2797 | 2310 | 1615 | 430 | 235 | 18687 |

Base: All establishments providing off-the-job training
Source: ESS2001 (IER/IFF)

**TABLE 5.6A**
**TYPE OF OFF-THE-JOB TRAINING BY INDUSTRY**

column percentages

| | Agri – culture | Manu – facturing | Construc – tion | Wholesal e/retail/re pair | Hotels & Restau- rants | Trans/ Comms | Finance | Business Services | Public Admin | Educa- tion | Health & Social Care | Other Services | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Induction training | 22 | 44 | 32 | 41 | 46 | 42 | 52 | 30 | 53 | 56 | 54 | 36 | |
| Health & Safety or First Aid | 84 | 68 | 66 | 56 | 85 | 57 | 58 | 44 | 78 | 75 | 74 | 63 | |
| Job specific training | 73 | 70 | 68 | 73 | 64 | 69 | 89 | 78 | 86 | 84 | 75 | 73 | |
| Supervisory training | 15 | 31 | 16 | 26 | 40 | 28 | 43 | 19 | 45 | 43 | 40 | 24 | |
| Management training | 10 | 32 | 13 | 30 | 47 | 30 | 45 | 29 | 56 | 54 | 52 | 27 | |
| Training in new technology | 26 | 56 | 44 | 45 | 28 | 56 | 69 | 61 | 68 | 65 | 42 | 48 | |
| Training in other languages | 1 | 4 | 1 | 1 | 5 | 3 | 5 | 4 | 2 | 6 | 2 | 1 | |
| Soft/generic skills training | 15 | 26 | 8 | 35 | 48 | 32 | 48 | 25 | 60 | 44 | 49 | 38 | |
| None of these | 2 | 2 | 4 | 3 | 1 | 2 | * | 2 | * | * | 1 | 1 | |
| Don't know | * | * | 0 | * | * | * | 0 | * | * | * | * | * | |
| Weighted base | 18007 | 55984 | 62001 | 144414 | 39662 | 23122 | 18806 | 207823 | 14946 | 36832 | 65394 | 61662 | |
| Unweighted base | 178 | 3009 | 1410 | 2169 | 1799 | 1124 | 599 | 2903 | 470 | 1308 | 2056 | 1557 | |

Base: All establishments providing off-the-job training
Source: ESS2001 (IER/IFF)

**TABLE 5.7**
**TYPE OF OFF-THE-JOB TRAINING BY SKILL DEFICIENCIES**

column percentages

| | Hard-to-fill vacancies | | Skill-shortage vacancies | | Skills gaps | | | Total |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Narrow measure | Broad measure only | All proficient | |
| Induction Training | 56 | 37 | 54 | 38 | 53 | 50 | 33 | 39 |
| Health & Safety or First Aid Training | 68 | 59 | 65 | 60 | 71 | 73 | 54 | 60 |
| Job specific training | 86 | 73 | 88 | 73 | 77 | 76 | 73 | 74 |
| Supervisory Training | 38 | 25 | 38 | 26 | 38 | 36 | 21 | 27 |
| Management Training | 40 | 32 | 39 | 32 | 42 | 39 | 29 | 33 |
| Training in new technology | 64 | 49 | 71 | 50 | 56 | 51 | 50 | 51 |
| Training in foreign languages | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| Soft or generic skills training | 45 | 31 | 43 | 32 | 43 | 40 | 28 | 32 |
| None of these | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 |
| Don't know | * | * | * | * | * | * | * | * |
| Weighted Base | 91138 | 669854 | 46892 | 714100 | 73110 | 186041 | 498362 | 760992 |
| Unweighted Base | 3723 | 14964 | 1694 | 16993 | 3557 | 7634 | 7292 | 18687 |

Base: All establishments providing off-the-job training
Source: ESS2001 (IER/IFF)

Note: (1) Level 1 refers to all establishments where some staff in at least one occupation are not fully proficient, but where no skills gaps are reported using the more specific measure.
(2) Level 2 refers to all establishments where less than nearly all staff are fully proficient (see Chapter 3 for details).

## 5.5 Whether used external suppliers for training

Using an external supplier for off-the-job training will be determined largely by the capacity of the establishment (or enterprise of which it is part) to supply training in-house, the type of training required, and the proximity or availability of external trainers. Approximately 85 per cent of those establishments that had engaged in off-the-job training had used an external supplier to provide at least some of it *(see Table 5.8)*. Generally, the incidence of using an external supplier increases in line with the number of employees in the establishment, although the differences are not great. Around 71 per cent of establishments with 1-4 employees had used an external supplier, compared to 85 per cent of those with 500 or more employees.

Hotels and restaurants, perhaps reflecting the average size of establishment in this sector, were least likely to have engaged an external training supplier (56 per cent of establishments) compared to the education sector which was most likely to do so (81 per cent of establishments). Overall, however, sectoral differences were modest.

The North East and the South West were the regions where establishments were least likely to have used external providers. Around 66 per cent of establishments in these regions had used an external supplier, compared to 79 per cent in London, the region where establishments were most likely to have used them.

The relationship between skill deficiencies and use of external training providers reveals few differences *(see Table 5.9)*. If an establishment had a hard-to-fill vacancy or reported a skill gaps, they were no more likely to have used an external trainer than if they had no vacancy or gaps even though the incidence of training is related to the existence of skill gaps and recruitment problems. There is, however, some difference in relation to skill-shortage vacancies. Where an establishment reported a skill-shortage vacancy they were more likely to report having used an external trainer than if they had no such vacancies (79 per cent and 70 per cent respectively).

**TABLE 5.8**
**USE OF EXTERNAL TRAINERS BY SIZE OF ESTABLISHMENT**

column percentages

| | Induction | | Health & Safety | | Job specific | | Supervisory | | Management | | New technology | | Foreign languages | | Soft / generic skills | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| Basic Computing | 20 | 17 | 20 | 17 | 20 | 17 | 21 | 18 | 21 | 18 | 22 | 17 | 22 | 18 | 20 | 18 |
| Advanced IT | 27 | 19 | 26 | 18 | 27 | 17 | 26 | 20 | 26 | 20 | 34 | 16 | 34 | 21 | 25 | 20 |
| Other Technical/ Practical | 37 | 26 | 36 | 26 | 38 | 24 | 35 | 28 | 33 | 28 | 38 | 26 | 35 | 29 | 35 | 28 |
| Communication | 43 | 33 | 42 | 33 | 43 | 32 | 46 | 34 | 44 | 34 | 39 | 35 | 50 | 36 | 46 | 33 |
| Customer Handling | 37 | 23 | 34 | 23 | 35 | 22 | 36 | 25 | 34 | 25 | 31 | 25 | 29 | 27 | 35 | 25 |
| Team Working | 34 | 22 | 33 | 20 | 31 | 21 | 33 | 23 | 33 | 23 | 31 | 23 | 39 | 25 | 32 | 23 |
| Foreign Language | 9 | 4 | 8 | 4 | 8 | 4 | 9 | 5 | 8 | 5 | 9 | 4 | 20 | 5 | 9 | 5 |
| Problem Solving | 32 | 21 | 30 | 20 | 31 | 19 | 33 | 22 | 29 | 22 | 30 | 21 | 30 | 24 | 34 | 21 |
| Management | 31 | 22 | 33 | 20 | 30 | 21 | 33 | 22 | 33 | 22 | 32 | 21 | 43 | 24 | 32 | 22 |
| Numeracy | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 |
| Literacy | 10 | 7 | 8 | 7 | 9 | 7 | 9 | 7 | 9 | 7 | 9 | 7 | 7 | 8 | 10 | 7 |
| ***Weighted Base*** | 38351 | 103174 | 51499 | 90026 | 55655 | 85870 | 27320 | 114205 | 30176 | 111349 | 40419 | 101106 | 2343 | 139182 | 30665 | 110860 |
| ***Unweighted Base*** | 2231 | 2421 | 2958 | 1694 | 2854 | 1798 | 1799 | 2853 | 1927 | 2725 | 2123 | 2529 | 221 | 4431 | 1794 | 2858 |

Base: All establishments providing off-the-job training
Source: ESS2001 (IER/IFF)

**TABLE 5.9**
**USE OF EXTERNAL TRAINERS BY SIZE OF ESTABLISHMENT**

column percentages

| | 1-4 | 5-24 | 25-49 | 50-99 | 100-199 | 200-499 | 500-999 | 1000+ | Total |
|---|---|---|---|---|---|---|---|---|---|
| Yes | 72 | 68 | 75 | 77 | 81 | 77 | 85 | 85 | 71 |
| No | 27 | 31 | 24 | 22 | 18 | 22 | 14 | 14 | 28 |
| Don't know | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |
| Weighted Base | 386479 | 253188 | 59580 | 35440 | 13775 | 9787 | 1784 | 957 | 760992 |
| Unweighted Base | 1239 | 5290 | 4771 | 2797 | 2310 | 1615 | 430 | 235 | 18687 |

Base: All establishments providing off-the-job training
Source: ESS2001 (IER/IFF)

Note: (1) Level 1 refers to all establishments with at least some staff not fully proficient.
(2) Level 2 refers to all establishments where less than nearly all staff are fully proficient (see Chapter 3 for details).

**TABLE 5.10**
**USE OF EXTERNAL TRAINERS BY SKILL DEFICIENCY**

column percentages

| | Hard-to-fill vacancies | | Skill-shortage vacancies | | Skills gaps | | | Total |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Narrow | Broad | All proficient | |
| Yes | 73 | 71 | 79 | 70 | 72 | 72 | 70 | 71 |
| No | 26 | 28 | 20 | 28 | 27 | 27 | 28 | 28 |
| Don't know | 1 | 1 | 2 | 1 | * | 1 | 1 | 1 |
| Weighted Base | 90175 | 660947 | 45863 | 705259 | 72401 | 185016 | 490217 | 751122 |
| Unweighted Base | 3723 | 14964 | 1694 | 16993 | 3557 | 7634 | 7292 | 18687 |

Base: All establishments providing off-the-job training
Source: ESS2001 (IER/IFF)

Note: (1) Level 1 refers to all establishments with at least some staff not fully proficient.
(2) Level 2 refers to all establishments where less than nearly all staff are fully proficient (see Chapter 3 for details).

## 5.6 Training expenditure

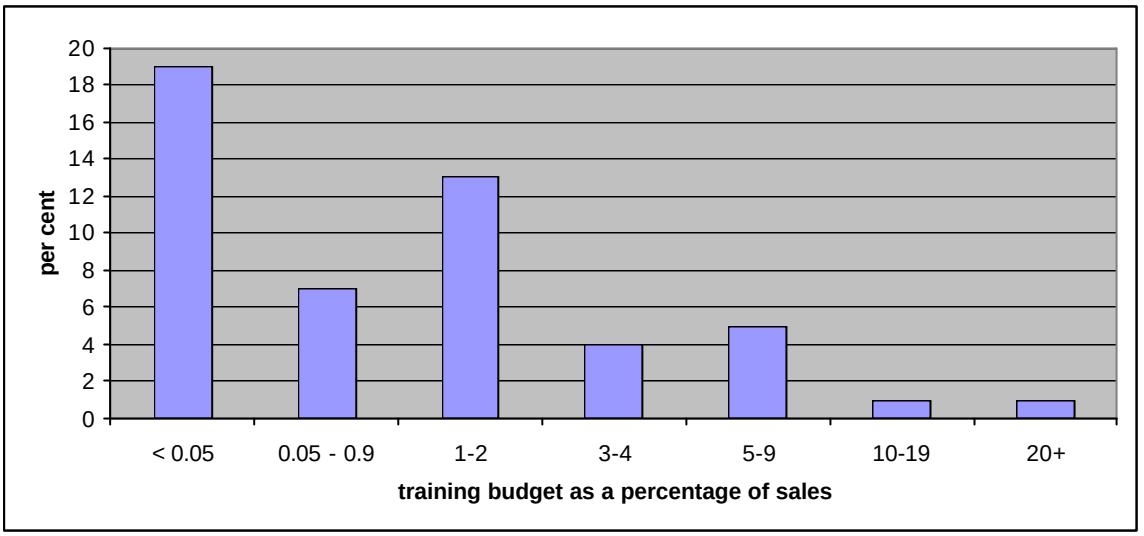
Capturing data about training expenditure by organisations proves to be exceedingly difficult.[4] It is apparent that over 50 per cent of respondents who admitted to a training budget did not know, or refused to answer the question on training expenditure. This proportion is more or less constant across size of establishment. The data from this survey on training expenditure should be treated as indicative; moreover, when compared to the Learning and Training at Work survey which yields a more accurate measure due to its methodology, is likely to provide an underestimate of training expenditure.[5]

Overall, the data reveal that expenditure on off-the-job training is quite modest. The average expenditure was around £19,000 a year but this is somewhat distorted by the small number of large organisations spending a great deal. By looking at the training expenditure as a proportion of sales (or budget in the public sector) a better idea of the importance of training expenditure to an organisation can be gained *(see Figure 5.5)*. For around 19 per cent of establishments training expenditure was less than 0.05 per cent of sales turnover. Overall, the mean expenditure was 2 per cent of sales turnover.

4 For an account of the difficulties see T.Hogarth, *et al*., *The Net Costs of Training to Employers*, Department for Education and Employment Research Series, Sheffield, 1996.

5 For more details see D. Spilsbury, IFF Research, *Learning and Training at Work 2000*, DfEE Research Series, 2000.

**FIGURE 5.5**
**TRAINING BUDGET AS A PERCENTAGE OF SALES TURNOVER**




Base: All establishments with training budget
Note: 'Do not knows' column excluded
Source: ESS2001 (IER/IFF)

The evidence reveals that the size of the training budget is very much related to the size of the establishment: the smaller the size of the establishment the greater the training budget as a proportion of total sales turnover *(see Table 5.10)*. As might have been surmised, training expenditure is relatively more important for smaller than larger establishments.

Training expenditure by industry and region is likely to reflect, at least in part, the size distribution of establishments. That said, it is apparent that training expenditure is more often close to zero per cent of sales turnover in agriculture and manufacturing than in other sectors *(see Table 5.11)*. In health and social work average training expenditure as a proportion of budget was highest – 4.7 per cent – and least in manufacturing – 1 per cent.

The West Midlands stands out as having the lowest training expenditure as a percentage of sales at 1.3 per cent compared to 2.1 per cent overall *(see Table 5.12)*. This is, in part, likely to reflect the relative importance of manufacturing in the region.

The results in relation to skill deficiencies reveal an interesting pattern *(see Table 5.13)*. Though establishments with skill deficiencies had a higher incidence of training this is not reflected in their levels of training expenditure. If an establishment reported a skill deficiency – either a skill-shortage vacancy or a skill gap – then their training expenditure as a proportion of sales turnover was lower than that for establishments with no reported skill deficiency. The fact that larger establishments were more likely to report skill deficiencies provides a plausible explanation for this finding.

**TABLE 5.11**
**TRAINING BUDGET AS A PROPORTION OF SALES BY SIZE OF ESTABLISHMENT**

column percentages

| | 1-4 | 5-24 | 25-49 | 50-99 | 100-199 | 200-499 | 500-999 | 1000+ | Total |
|---|---|---|---|---|---|---|---|---|---|
| Close to zero | 17 | 18 | 20 | 26 | 25 | 27 | 29 | 33 | 19 |
| Under 1 per cent | 7 | 7 | 8 | 8 | 7 | 5 | 6 | 4 | 7 |
| 1-2 per cent | 16 | 11 | 12 | 9 | 8 | 5 | 3 | 2 | 13 |
| 3-4 per cent | 4 | 4 | 4 | 4 | 2 | 2 | * | 2 | 4 |
| 5-9 per cent | 8 | 3 | 4 | 1 | 1 | 1 | * | 1 | 5 |
| 10-19 per cent | 2 | 1 | 1 | 1 | 1 | * | 0 | 0 | 1 |
| 20 per cent or more | 1 | 1 | 1 | 1 | * | 0 | 0 | * | 1 |
| Don't know / refused | 47 | 56 | 50 | 51 | 57 | 61 | 61 | 59 | 51 |
| Mean | 2.6 | 1.9 | 1.9 | 1.7 | 1.2 | 0.7 | 0.4 | 0.9 | 2.1 |
| Weighted Base | 139167 | 130422 | 38828 | 26234 | 11150 | 8485 | 1600 | 883 | 356770 |
| Unweighted Base | 528 | 2682 | 2992 | 2037 | 1879 | 1387 | 375 | 218 | 12098 |

Base: All establishments with a budget for training expenditure
Source: ESS2001 (IER/IFF)

**TABLE 5.12**
**TRAINING BUDGET AS A PROPORTION OF SALES BY INDUSTRIAL SECTOR**

column percentages

| | Agri – culture | Manu - facturing | Construc - tion | Wholesal e/retail/re pair | Hotels & Restaura nts | Transport & Communi – cation | Financial Intermed - iation | Business Services | Public Admin | Educatio n | Health & Social Work | Other Services | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close to zero | 33 | 31 | 26 | 20 | 26 | 26 | 16 | 19 | 22 | 10 | 10 | 10 | 19 |
| Under 1 per cent | 5 | 9 | 13 | 4 | 4 | 7 | 1 | 8 | 7 | 9 | 7 | 8 | 7 |
| 1-2 per cent | 18 | 6 | 29 | 5 | 13 | 9 | 17 | 13 | 8 | 22 | 13 | 16 | 13 |
| 3-4 per cent | 0 | 2 | 4 | 1 | 2 | 2 | 4 | 4 | 4 | 9 | 4 | 6 | 4 |
| 5-9 per cent | 5 | 2 | 1 | 1 | 1 | * | 4 | 10 | 3 | 9 | 5 | 2 | 5 |
| 10-19 per cent | 0 | * | * | 1 | * | * | 1 | * | 1 | 3 | 3 | 1 | 1 |
| 20 per cent or more | * | * | 0 | * | * | 1 | 0 | * | 1 | 1 | 3 | * | 1 |
| Don't know / Refused | 39 | 49 | 28 | 67 | 53 | 55 | 56 | 45 | 54 | 38 | 54 | 58 | 51 |
| Mean | 1.2 | 1.0 | 1.1 | 1.5 | 1.1 | 2.2 | 1.9 | 2.1 | 1.8 | 3.1 | 4.7 | 2.3 | 2.1 |
| Weighted Base | 9828 | 24733 | 18066 | 65189 | 21113 | 10430 | 13518 | 88833 | 11902 | 28879 | 37861 | 24827 | 356770 |
| Unweighted Base | 83 | 1818 | 579 | 1419 | 1052 | 699 | 403 | 1942 | 404 | 1178 | 1459 | 983 | 12098 |

Base: All establishments with a budget for training expenditure
Source: ESS2001 (IER/IFF)

**TABLE 5.13**

**TRAINING BUDGET AS A PROPORTION OF SALES BY REGION**

column percentages

| | Eastern | East Midlands | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humber - side | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Close to zero | 20 | 14 | 16 | 11 | 20 | 25 | 18 | 18 | 21 | 19 |
| Under 1 per cent | 8 | 8 | 5 | 9 | 4 | 9 | 8 | 7 | 7 | 7 |
| 1-2 per cent | 10 | 10 | 13 | 17 | 15 | 8 | 17 | 18 | 11 | 13 |
| 3-4 per cent | 2 | 2 | 5 | 6 | 4 | 3 | 5 | 4 | 2 | 4 |
| 5-9 per cent | 3 | 6 | 10 | 3 | 2 | 7 | 2 | 1 | 4 | 5 |
| 10-19 per cent | 1 | 1 | 1 | * | 1 | 1 | 2 | * | 3 | 1 |
| 20 per cent or more | * | * | * | 1 | * | 2 | * | * | * | 1 |
| Don't know / Refused | 56 | 59 | 51 | 53 | 54 | 45 | 47 | 51 | 52 | 51 |
| Mean | 1.5 | 2.6 | 2.4 | 2.9 | 1.8 | 2.3 | 2.0 | 1.3 | 2.4 | 2.1 |
| Weighted Base | 41885 | 29222 | 55215 | 16253 | 39254 | 64254 | 41537 | 34979 | 34172 | 356770 |
| Unweighted Base | 1354 | 1045 | 1858 | 856 | 1406 | 1756 | 1355 | 1289 | 1179 | 12098 |

Base: All establishments with a budget for training expenditure
Source: ESS2001 (IER/IFF)

**TABLE 5.14**
**TRAINING BUDGET AS PROPORTION OF SALES BY SKILL DEFICIENCIES GAP**

column percentages

| | Hard-to-fill vacancies | | Skill-shortage vacancies | | Skills gaps | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | All proficient | Level 1[1] | Level 2[2] | |
| Close to zero | 22 | 18 | 25 | 19 | 17 | 21 | 28 | 19 |
| Under 1 per cent | 10 | 6 | 12 | 6 | 6 | 8 | 9 | 7 |
| 1-2 per cent | 16 | 12 | 13 | 13 | 12 | 14 | 14 | 13 |
| 3-4 per cent | 4 | 4 | 3 | 4 | 3 | 4 | 5 | 4 |
| 5-9 per cent | 2 | 5 | 2 | 5 | 6 | 2 | 3 | 5 |
| 10-19 per cent | 2 | 1 | 2 | 1 | 1 | 1 | * | 1 |
| 20 per cent or more | * | 1 | * | 1 | 1 | 1 | * | 1 |
| Don't know / Refused | 44 | 53 | 42 | 52 | 53 | 51 | 41 | 51 |
| Mean | 1.7 | 2.2 | 1.7 | 2.2 | 2.6 | 1.6 | 1.4 | 2.1 |
| Weighted Base | 56453 | 300317 | 28012 | 328758 | 213699 | 100288 | 40011 | 356770 |
| Unweighted Base | 2642 | 9456 | 1160 | 10938 | 4515 | 5116 | 2299 | 12098 |

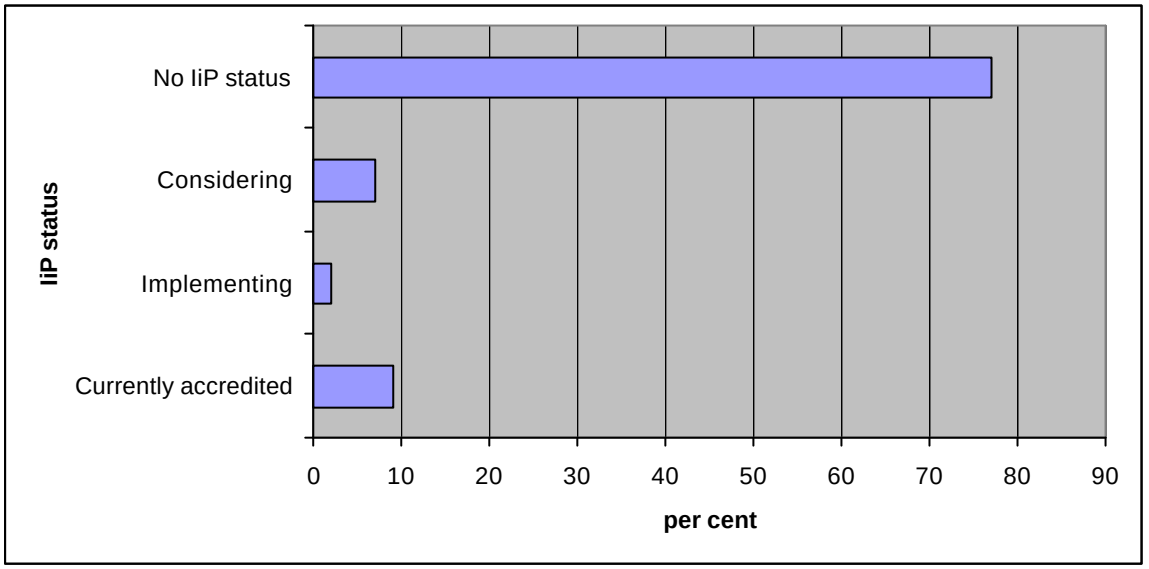
Base: All establishments with a budget for training expenditure
Source: ESS2001 (IER/IFF)

Note: (1) Level 1 refers to all establishments where some staff in at least one occupation are not fully proficient, but where no skills gaps are reported using the more specific measure
(2) Level 2 refers to all establishments where less than nearly all staff are fully proficient (see Chapter 3 for details).

## 5.7 Investors in People

The chapter started by looking at the formal arrangements in place for the provision of off-the-job training. Related to those formal arrangements is Investors in People (IiP) accreditation which recognises the processes that are in place within an establishment to meet skills and training needs. In fact, only a small proportion of establishments meet IiP status (9 per cent), or were implementing it (2 per cent), or were considering it (7 per cent) – *(see Figure 5.6)*. Accreditation is very much linked to employment size: 52 per cent of establishments with 1000 or more employees had IiP accreditation compared to 5 per cent with 1-4 employees and 17 per cent with 5-24 employees. It was also much more common in the public sector where 52 per cent of public administration establishments had obtained accreditation.

**FIGURE 5.6**
**IiP ACCREDITATION**




Base: All establishments
Source: ESS2001 (IER/IFF)

*Table 5.14* shows the relationship between IiP status and the incidence of skill deficiencies. In large measure one is addressing the relationship between size of establishment and skill deficiencies given the distribution of IiP status in the population of establishments. There is, however, evidence to suggest that IiP status is found more often in establishments with skill gaps. The relatively high incidence of skill gaps in IiP accredited establishments may related to the fact that IiP may be part of the process of identifying those skill gaps.

**TABLE 5.15**
**IIP STATUS BY REGION**

| | Eastern | East Midlands | London | North East | North West | South East | South West | West Midlands | Yorkshire & Humber - side | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Accredited | 10 | 10 | 8 | 12 | 12 | 9 | 8 | 9 | 11 | 9 |
| Implementing | 1 | 2 | 5 | 2 | 1 | 2 | 2 | 3 | 2 | 2 |
| Considering | 6 | 4 | 9 | 10 | 5 | 5 | 8 | 8 | 6 | 7 |
| None of the above | 78 | 80 | 73 | 71 | 78 | 79 | 76 | 76 | 77 | 77 |
| Don't know | 6 | 4 | 6 | 4 | 4 | 4 | 6 | 4 | 4 | 5 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Weighted Base | 233565 | 161545 | 382227 | 72005 | 246166 | 366648 | 216207 | 200723 | 179569 | 2058711 |
| Unweighted Base | 3035 | 2560 | 4011 | 1999 | 3109 | 3908 | 2916 | 2816 | 2677 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

Note: (1) Level 1 refers to all establishments where some staff in at least one occupation are not fully proficient, but where no skills gaps are reported using the more specific measure.
(2) Level 2 refers to all establishments where less than nearly all staff are fully proficient (see Chapter 3 for details).

**TABLE 5.15**
**IIP STATUS BY SKILLDEFICIENCIES**

| | Hard-to-fill vacancies | | Skill-shortage vacancies | | Skills gaps | | | Total |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Narrow measure | Broad measure only | All proficient | |
| Accredited | 9 | 12 | 9 | 9 | 18 | 16 | 7 | 9 |
| Implementing | 2 | 7 | 2 | 9 | 4 | 3 | 2 | 2 |
| Considering | 6 | 17 | 6 | 19 | 10 | 11 | 6 | 7 |
| None of the above | 78 | 61 | 77 | 61 | 63 | 64 | 8 | 77 |
| Don't know | 5 | 3 | 5 | 2 | 5 | 5 | 5 | 5 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Weighted Base | 1904184 | 154529 | 1983632 | 75081 | 141525 | 328566 | 1579561 | 2058713 |
| Unweighted Base | 22430 | 4600 | 24998 | 2033 | 4652 | 9674 | 12421 | 27031 |

Base: All establishments
Source: ESS2001 (IER/IFF)

Note: (1) Level 1 refers to all establishments where some staff in at least one occupation are not fully proficient, but where no skills gaps are reported using the more specific measure.
(2) Level 2 refers to all establishments where less than nearly all staff are fully proficient (see Chapter 3 for details).

## 5.8 Conclusion

For an employer the obvious solution to the existence of a skill deficiency is to train existing staff to the level of competence required. The evidence points towards employers with skill deficiencies being more likely to report that they had engaged in off-the-job training over the last 12 months. The problem is that employer provided or funded off-the-job training may not be able to offset any skill deficiencies quickly enough to offset any impact on business performance. This is all the more apparent if one considers (i) that few employers engage in a formal planning of their future skill needs and (ii) that much training is concerned with either induction or health and safety. There is also the position of small establishments to consider. Most of the smallest establishments, with 1-4 employees, had not engaged in formal off-the-job training over the last 12 months and few recognised that they experienced skill deficiencies. This suggests that there is little recognition of the need for, or provision of, human resource development in smaller establishments. This is a potential problem for that proportion of the workforce engaged in these establishments, all the more so given that this is where much future employment growth will take place.

# 6. The changing pattern of skills deficiencies

## 6.1 Introduction

As discussed in Chapter One, a fundamental difference between ESS 2001 and ESS 1999 is the differing coverage of the two surveys' sample frames. Whereas ESS 1999 focused on establishments with more than 5 employees and did not incorporate the agriculture sector, ESS 2001 extended to both these sub-groups of employers.

These discrepancies between the two samples make comparisons across time problematic at overall levels. In this final chapter of the report, we therefore directly compare key findings reported from ESS 1999 with those from ESS 2001 ***on a restricted sample base*** - i.e. by reporting findings across establishments with more than 5 employees across all sectors of the economy, excluding the agriculture sector.

The numbers of observations or interviews upon which this re-analysis of ESS 2001 is based is shown in Table 6.1 below. The tables also show comparative figures from ESS 1999.

**TABLE 6.1**

**OVERALL PROPORTIONS OF ESTABLISHMENTS REPORTING VACANCIES**

| | Number of interviews | | | Number of interviews | |
|---|---|---|---|---|---|
| | ESS 2001 | ESS 1999 | | ESS 2001 | ESS 1999 |
| **Size of establishment (number of employees)** | | | **Sector** | | |
| 5-24 | 8,625 | 10,417 | Mining & quarrying | 58 | 51 |
| 25-49 | 6,112 | 6,426 | Manufacturing | 3,909 | 6,109 |
| 50-99 | 3,293 | 3,770 | Electricity & water | 58 | 51 |
| 100-199 | 2,594 | 3,361 | Construction | 1,835 | 1,429 |
| 200-499 | 1,790 | 2,236 | Wholesale, retail | 2,885 | 4,698 |
| 500-999 | 456 | 515 | Hotels & restaurants | 2,616 | 2,331 |
| 1000+ | 247 | 227 | Transport & communication | 1,662 | 1,218 |
| **Region** | | | Finance | 706 | 1,132 |
| Eastern | 2,575 | 2,971 | Business services | 3,335 | 2,813 |
| East Midlands | 2,174 | 2,412 | Public administration | 518 | 803 |
| London | 3,491 | 3,377 | Education | 1,377 | 1,759 |
| North East | 1,667 | 2,048 | Health & social care | 2,287 | 2,822 |
| North West | 2,730 | 3,758 | Other services | 1,871 | 1,571 |
| South East | 3,260 | 3,749 | | | |
| South West | 2,466 | 2,973 | **Total** | **23,117** | **26,952** |
| West Midlands | 2,436 | 2,880 | | | |
| Yorkshire & Humberside | 2,318 | 2,784 | | | |

## 6.2 Incidence of vacancies, hard-to-fill vacancies and skill-shortage vacancies

At the time of ESS 1999, approximately 32 per cent of establishments reported vacancies, half of which described at least some of their vacancies as hard-to-fill (16%). Half again of establishments reporting hard-to-fill vacancies (8% of all establishments) reported vacancies whose principal cause lay in supply-side skills issues, i.e. skill-shortage vacancies.

As seen in Chapter Two, at overall level, the proportion of establishments found to be experiencing vacancies of all types through this year's survey was considerably lower, with only 14% reporting vacancies, 8% hard-to-fill vacancies and 4% skill-shortage vacancies.

On a directly comparable basis, however – i.e. excluding establishments in the agricultural sector and those with fewer than 5 employees – the incidence of vacancies, hard-to-fill vacancies and skill-shortage vacancies is much more in line with that seen in 1999 (*see Table 6.1*). Slightly fewer establishments reported vacancies (27% *vs.* 32%). However, similar proportions of those establishments reporting vacancies described these as hard to fill and skills-related.

**TABLE 6.1**
**OVERALL PROPORTIONS OF ESTABLISHMENTS REPORTING VACANCIES**

| | % of all establishments reporting | | |
|---|---|---|---|
| | ESS 1999 | ESS2001 | ESS2001 (excluding establishments in the agriculture sector and those with fewer than 5 employees) |
| All vacancies | 32 | 14 | 27 |
| Hard-to-fill vacancies | 16 | 8 | 14 |
| Skill-shortage vacancies | 8 | 4 | 6 |
| Weighted Base | 533,723 | 2,058,713 | 567,373 |
| Unweighted Base | 26,952 | 27,031 | 23,117 |

Source: STF Employers' Survey (IER/IFF) and ESS2001 (IER/IFF)
Base: All establishments

## 6.3 Numbers of vacancies, hard-to-fill vacancies and skill-shortage vacancies

In terms of the numbers of vacancies, hard-to-fill vacancies and skill-shortage vacancies, the picture is broadly the same. Although overall findings indicate a dramatic rise in the numbers of vacancies, hard-to-fill vacancies and skill-shortage vacancies, this is in large part due to the inclusion of establishments with fewer than 5 employees. While smaller proportions of the latter report vacancies of all types, the sheer number of such small establishments grossly inflates the overall number of vacancies.

When the sample is restricted to include only those establishments with more than 5 employees, and to exclude the agriculture sector, the year on year trend suggests a slight decrease in the numbers of vacancies, hard-to-fill vacancies and skill-shortage vacancies (*see table 6.2*). Moreover, a slightly smaller proportion of all vacancies can be defined as skills-related (18% *vs.* 21%).

**TABLE 6.2**
**OVERALL NUMBERS OF VACANCIES**

| | Number of vacancies (a) '000s | | |
|---|---|---|---|
| | ESS 1999 | ESS2001 | ESS2001 (excluding establishments in the agriculture sector and those with fewer than 5 employees) |
| All vacancies | 558 | 766 | 532 |
| Hard-to-fill vacancies | 247 | 358 | 232 |
| Skill-shortage vacancies | 102 | 159 | 94 |
| Weighted Base (all establishments) | 533,723 | 2,058,713 | 567,373 |
| Unweighted Base (all establishments) | 26,952 | 27,031 | 23,117 |

Source: STF Employers' Survey (IER/IFF) and ESS2001 (IER/IFF)
Base: All establishments
Note: (a) Grossed up survey-based estimates

## 6.4 Vacancies, hard-to-fill vacancies and skill-shortage vacancies by size of establishment

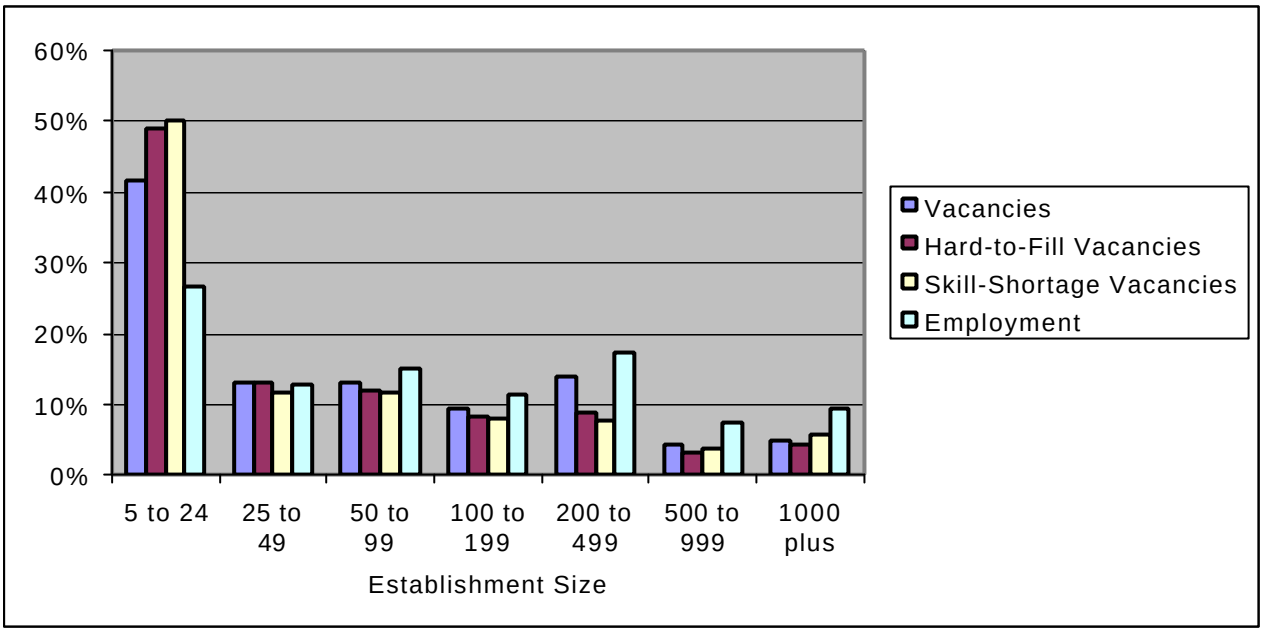
The distribution of vacancies, hard-to-fill vacancies and skill-shortage vacancies as reported across ESS 1999 and ESS 2001 is summarised in *Figure 6.1*. It is apparent that the trends in distribution have changed little in the intervening period. The largest proportion of vacancies remains located in establishments employing between 5 and 24 employees.

There is evidence, however, to suggest that these establishments have benefited most from the overall fall in the number of vacancies. In 1999, establishments with between 5 and 24 employees accounted for two fifths of all vacancies (42%), and a half of all hard-to-fill and skill-shortage vacancies (49% and 50% respectively). This time round, they account for only a third of all vacancies (34%) and less than two-fifths of all hard-to-fill and skill-shortage vacancies (38% and 37% respectively).

Given that smaller firms (those employing between 5 and 24 employees) account for a quarter of employment (25% compared to 27% in 1999), it remains true that skill-shortage vacancies are more of a problem for them than for their larger counterparts.

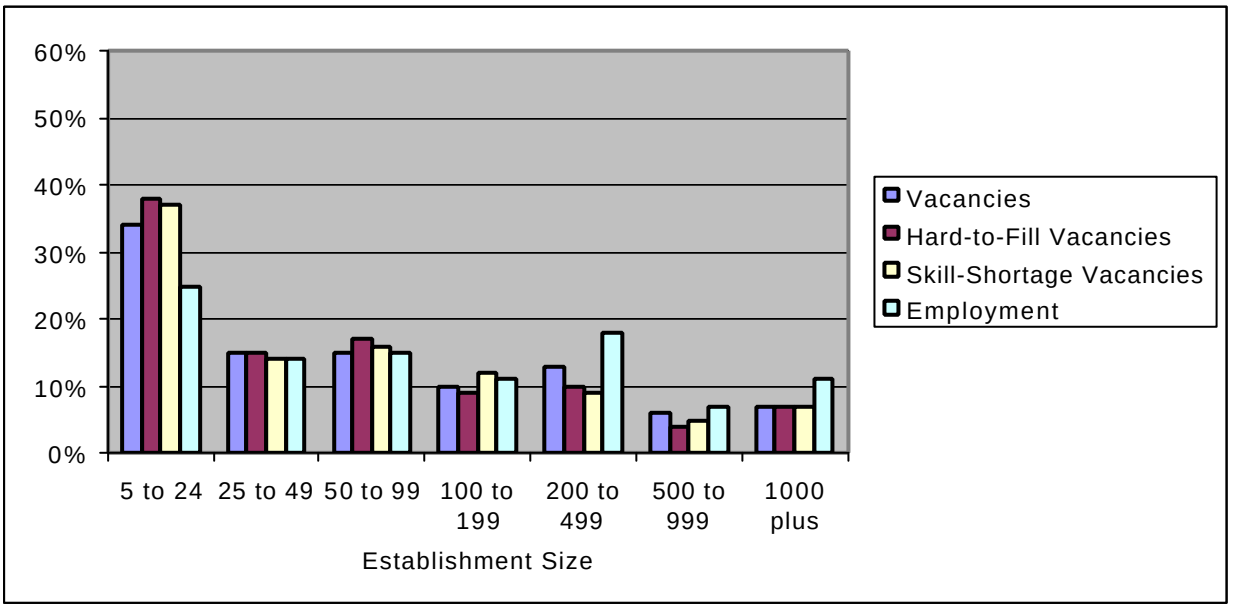
**FIGURE 6.1**
**OVERALL DISTRIBUTION OF VACANCIES AND EMPLOYMENT BY SIZE OF ESTABLISHMENT**

**ESS 1999**




Source: STF Employers' Survey (IER/IFF)

**ESS 2001**




Source: ESS 2001 (IFF/IER)

## 6.5 Hard-to-fill and skill-shortage vacancies by occupation

The shares of hard-to-fill and skill-shortage vacancies in different occupations reported by ESS 1999 and ESS 2001 **on a restricted sample base** are illustrated in *Figures 6.2* and *6.3*.

**FIGURE 6.2**

**DISTRIBUTION OF HARD-TO-FILL VACANCIES BY OCCUPATION**

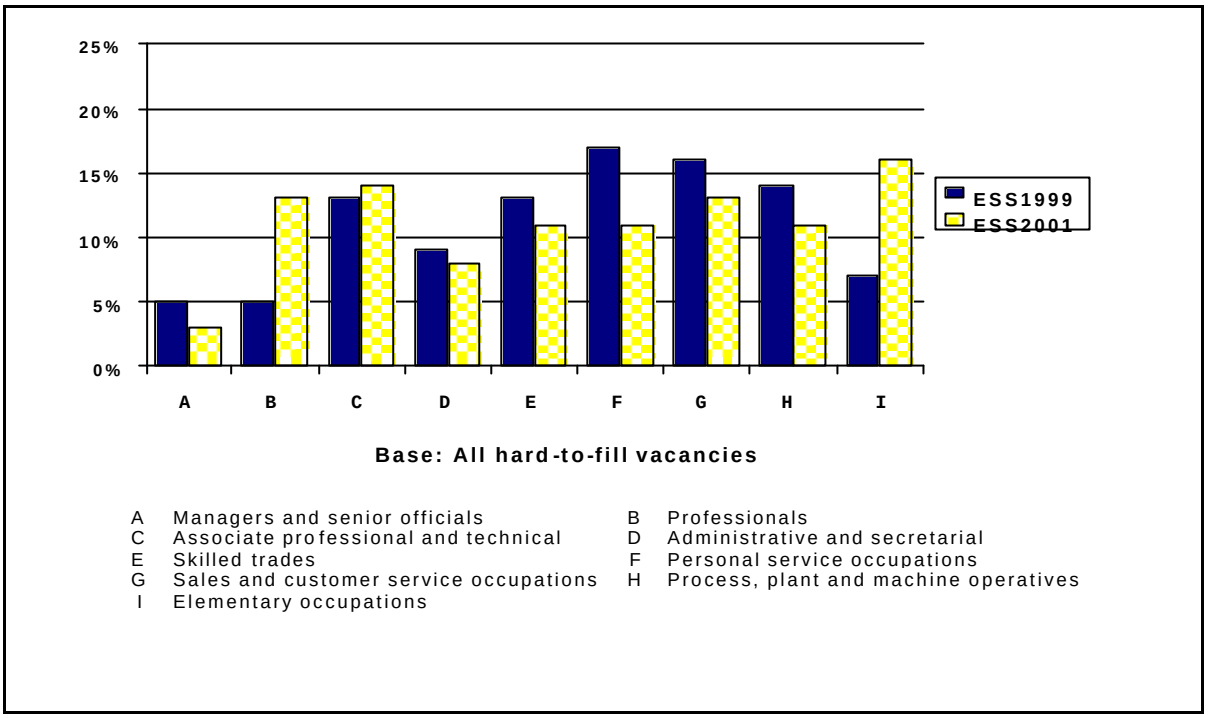
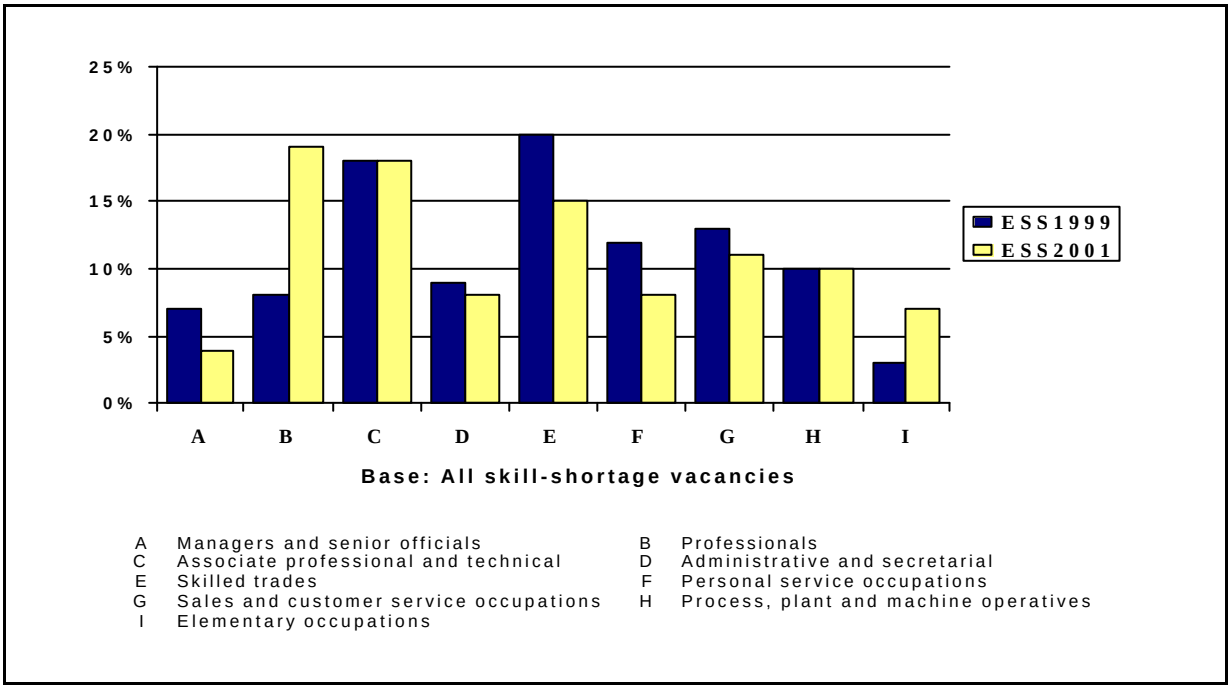



**FIGURE 6.3**

**DISTRIBUTION OF SKILL-SHORTAGE VACANCIES BY OCCUPATION**



In 1999, personal and protective services, sales and craft and related occupations accounted for almost half of all hard-to-fill vacancies (47%) while in 2001, they account for only a third of them (35%). By contrast, elementary occupations, associate professional and technical occupations and professionals now account for almost half of all hard-to-fill vacancies, whereas in 1999, a quarter of all hard-to-fill vacancies were located in these occupations[1].

In terms of skill-shortage vacancies, the clearest growth in the number of skill-shortage vacancies has been in professional occupations, which now account for one in five skill-shortage vacancies (19%) compared to less than one in ten in 1999 (8%). By contrast, the proportion of skill-shortage vacancies accounted for by craft and related occupations (skilled trades) has fallen from 20% to 15%.

Consideration of hard-to-fill and skill-shortage vacancies as a proportion of employment in each occupation more clearly indicates in which occupations shortages have most impact (*see Table 6.3*).

**TABLE 6.3**

**VACANCIES, HARD-TO-FILL VACANCIES AND SKILL-SHORTAGE VACANCIES AS A PROPORTION OF EMPLOYMENT BY OCCUPATION**

| | Vacancies as a % of employment | | Hard-to-fill vacancies as a % of employment | | Skill-shortage vacancies as a % of employment | |
|---|---|---|---|---|---|---|
| | ESS 1999 | ESS 2001* | ESS 1999 | ESS 2001* | ESS 1999 | ESS 2001* |
| | % | % | % | % | % | % |
| **All occupations** | **3.2** | 2.9 | **1.4** | 1.3 | **0.6** | 0.5 |
| | | | | | | |
| Managerial and senior officials | 1.5 | 1.1 | 0.5 | 0.3 | 0.3 | 0.2 |
| Professionals | 1.3 | 2.2 | 0.5 | 1.2 | 0.3 | 0.7 |
| Associate professionals and technical occupations | 4.4 | 4.9 | 2.3 | 2.1 | 1.4 | 1.1 |
| Administrative and secretarial | 3.1 | 2.3 | 0.8 | 0.7 | 0.3 | 0.3 |
| Skilled trades | 2.9 | 2.9 | 2.2 | 1.6 | 1.5 | 0.9 |
| Personal services | 6.0 | 3.2 | 3.0 | 1.8 | 0.9 | 0.5 |
| Sales and customer service occupations | 5.7 | 3.2 | 2.2 | 1.3 | 0.7 | 0.4 |
| Process, plant and machine operatives | 3.3 | 2.3 | 1.8 | 1.2 | 0.6 | 0.4 |
| Elementary occupations | 2.7 | 5.9 | 1.2 | 2.3 | 0.2 | 0.4 |

Base: all establishments

* ESS 2001 figures are based on all establishments excluding those in the agriculture sector and those with fewer than 5 employees

External skill deficiencies have eased in all occupations with the exception of professionals and elementary occupations, where skill-shortage vacancies now represent twice as large a proportion of employment as in 1999.

Although external skill deficiencies form a lesser proportion of employment in associate professional and technical occupations and in skilled trades than in 1999, these remain the occupations in which such external deficiencies are most keenly felt.

[1] Changes in occupational categorisations introduced by SOC 2000 are at the origin of some of these changes. See Technical Appendix

## 6.6 Hard-to-fill and skill-shortage vacancies by sector

Trends in the distribution of hard-to-fill and skill-shortage vacancies by sector are shown in *Figures 6.4 and 6.5* below.

**FIGURE 6.4**
**DISTRIBUTION OF HARD-TO-FILL VACANCIES BY SECTOR**

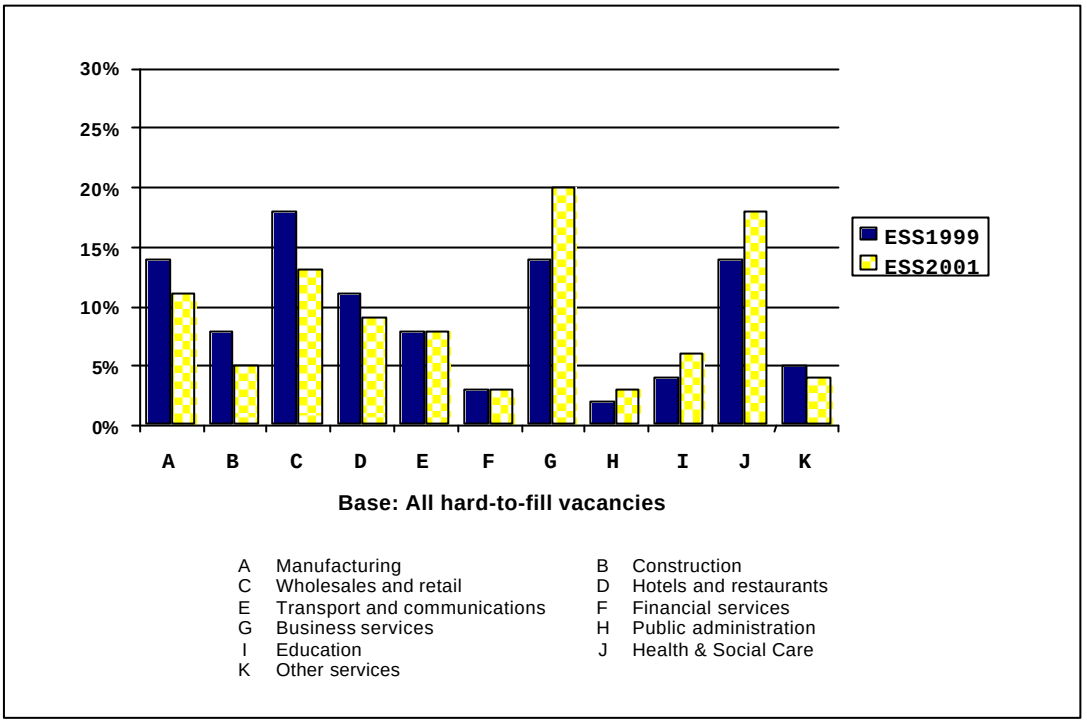
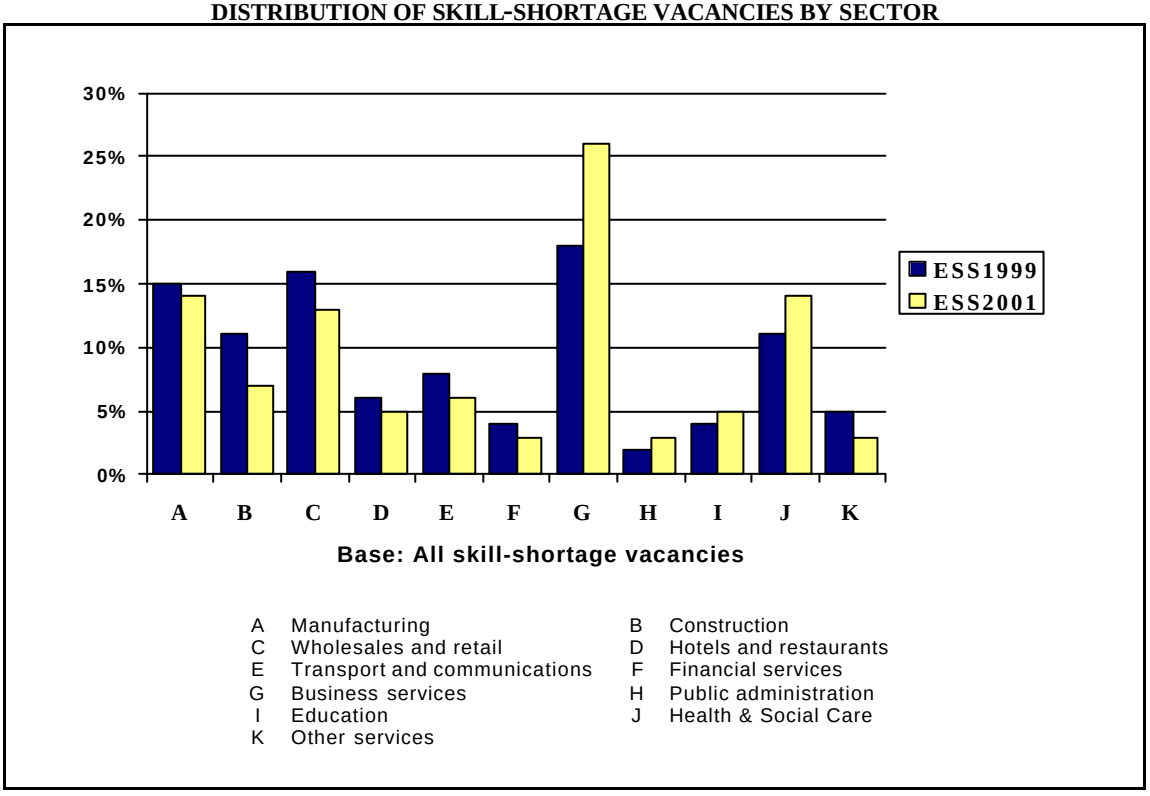



**FIGURE 6.5**
**DISTRIBUTION OF SKILL-SHORTAGE VACANCIES BY SECTOR**



In terms of hard-to-fill vacancies, the largest changes have been:

- in the business services and health and social care sectors which now account for a larger share of all hard-to-fill vacancies than in 1999 (from 14% to 20% and from 14% to 17% respectively)
- and in the wholesale / retail, manufacturing and construction sectors which now account for a smaller share of all hard-to-fill vacancies than in 1999 (from 18% to 13%, 14% to 11% and 8% to 5% respectively).

These trends are mirrored in respect of skill shortage vacancies.

Analysis of vacancies by proportion of employment at sectoral level is shown in Table 6.4.

**TABLE 6.4**

**VACANCIES, HARD-TO-FILL VACANCIES AND SKILL-SHORTAGE VACANCIES AS A PROPORTION OF EMPLOYMENT BY SECTOR**

| | Vacancies as a % of employment | | Hard-to-fill vacancies as a % of employment | | Skill-shortage vacancies as a % of employment | |
|---|---|---|---|---|---|---|
| | ESS 1999 | ESS 2001* | ESS 1999 | ESS 2001* | ESS 1999 | ESS 2001* |
| | % | % | % | % | % | % |
| **All sectors** | **3.2** | 2.9 | **1.4** | 1.3 | **0.6** | 0.5 |
| | | | | | | |
| Manufacturing | 2.0 | 1.8 | 1.0 | 0.8 | 0.5 | 0.4 |
| Construction | 3.7 | 3.0 | 3.0 | 1.8 | 2.2 | 1.0 |
| Wholesale & Retail | 4.0 | 2.4 | 1.5 | 1.0 | 0.5 | 0.4 |
| Hotels & Restaurants | 5.8 | 5.1 | 2.9 | 2.1 | 0.7 | 0.4 |
| Transport & Communications | 3.4 | 3.3 | 1.9 | 1.6 | 0.7 | 0.5 |
| Financial Services | 2.4 | 2.6 | 0.8 | 0.7 | 0.5 | 0.3 |
| Business Services | 3.7 | 4.3 | 1.6 | 1.9 | 0.8 | 1.0 |
| Public Administration | 2.1 | 2.3 | 0.4 | 0.7 | 0.1 | 0.2 |
| Education | 1.8 | 2.0 | 0.7 | 0.9 | 0.3 | 0.3 |
| Health & Social Care | 3.5 | 3.6 | 1.8 | 1.9 | 0.6 | 0.6 |
| Other Services | 3.9 | 3.6 | 1.8 | 1.4 | 0.7 | 0.4 |

Base: all establishments

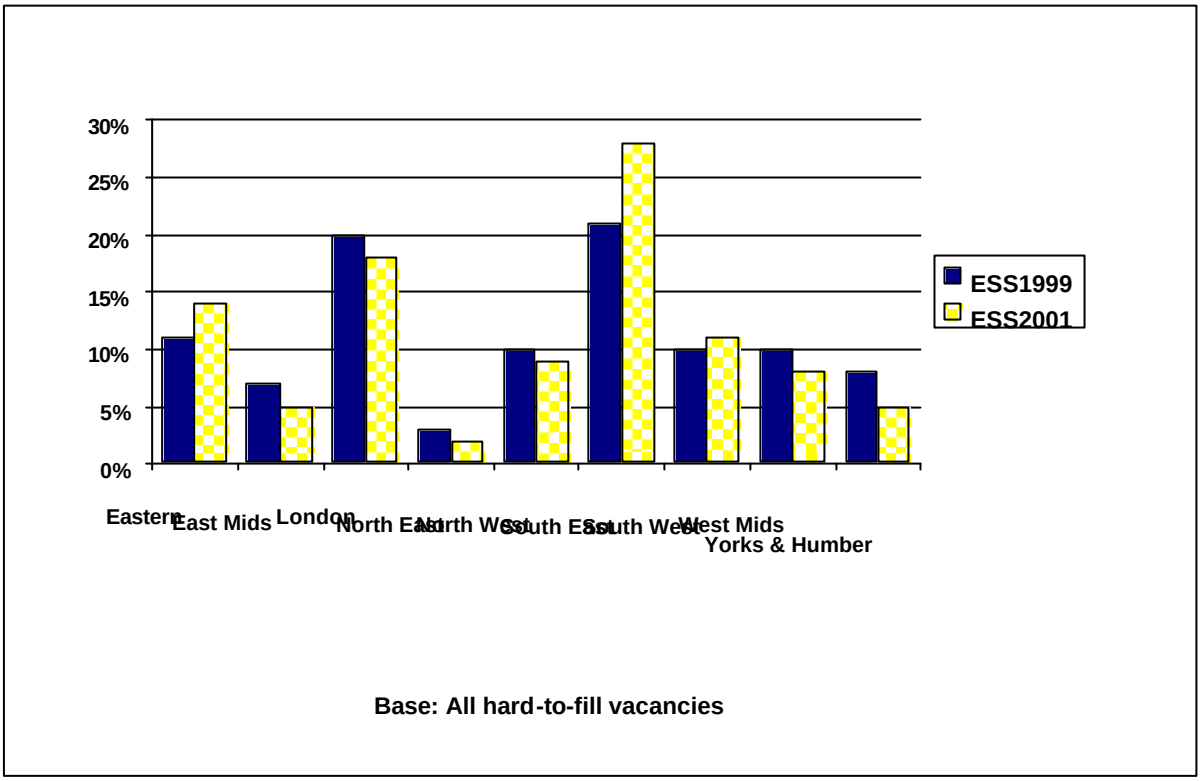
* ESS 2001 figures are based on all establishments excluding those in the agriculture sector and those with fewer than 5 employees

At the time of ESS 1999, skill-shortage vacancies appeared to be having a much greater impact in the construction sector than in any other sector. While it remains true that the construction trade is harder hit by external deficiencies than most other sectors, the difference has narrowed significantly; indeed such problems are on a par with those felt in the business services sector (where their impact is slightly greater than in 1999).

## 6.7 Hard-to-fill and skill-shortage vacancies by region

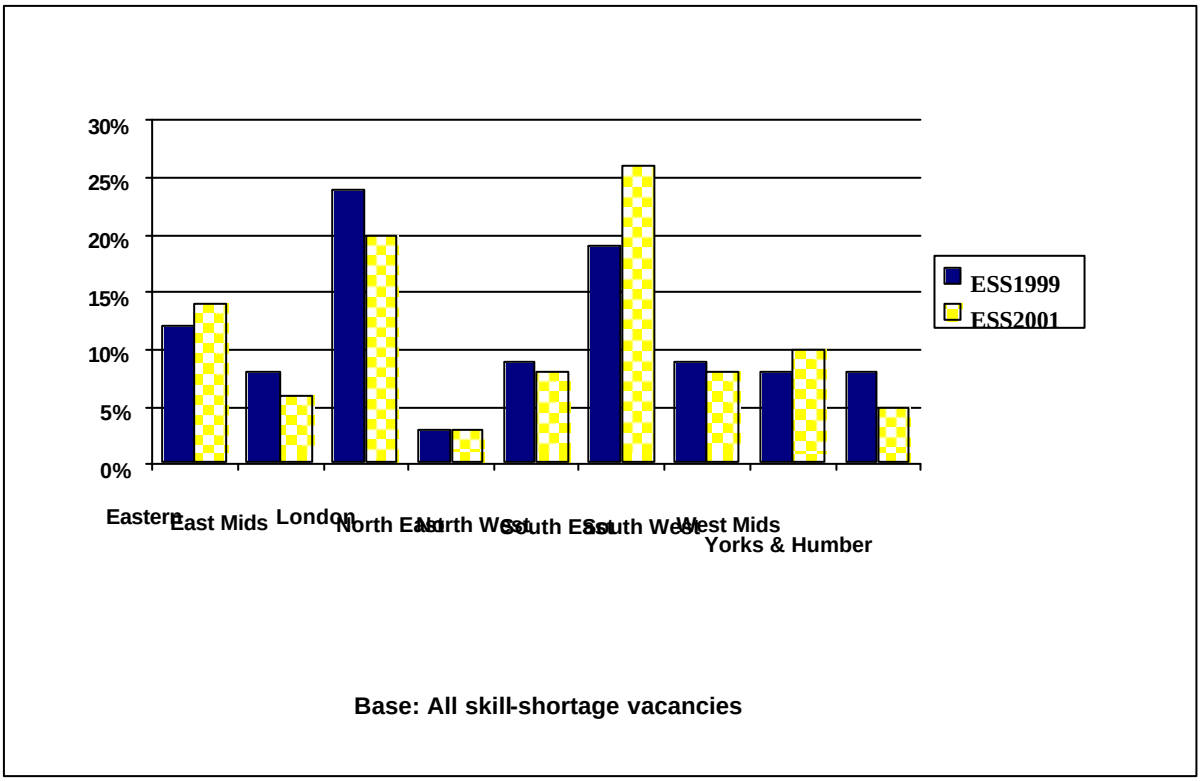
The shares of hard-to-fill and skill-shortage vacancies in different regions reported by ESS 1999 and ESS 2001 **on a restricted sample base** are illustrated in *Figures 6.6* and *6.7*.

FIGURE 6.6
DISTRIBUTION OF HARD-TO-FILL VACANCIES BY REGION




Base: All hard-to-fill vacancies

FIGURE 6.7
DISTRIBUTION OF SKILL-SHORTAGE VACANCIES BY REGION




Base: All skill-shortage vacancies

Differences in the distribution of hard-to-fill and skill-shortage vacancies by region between 1999 and 2001 are relatively small, in the main. However, the South East which, along with London, was the hardest hit by external deficiencies in 1999, now accounts for an even larger proportion of both hard-to-fill and skill-shortage vacancies (from 21% to 28% of all hard-to-fill vacancies and from 19% to 26% of all skill-shortage vacancies).

Except for in the South East, skill-shortage vacancies ***as a proportion of employment*** have either remained stable or decreased slightly across all regions.

**TABLE 6.5**

**VACANCIES, HARD-TO-FILL VACANCIES AND SKILL-SHORTAGE VACANCIES AS A PROPORTION OF EMPLOYMENT BY REGION**

| | Vacancies as a % of employment | | Hard-to-fill vacancies as a % of employment | | Skill-shortage vacancies as a % of employment | |
|---|---|---|---|---|---|---|
| | **ESS 1999** | **ESS 2001*** | **ESS 1999** | **ESS 2001*** | **ESS 1999** | **ESS 2001*** |
| | **%** | **%** | **%** | **%** | **%** | **%** |
| **All regions** | **3.2** | 2.9 | **1.4** | 1.3 | **0.6** | 0.5 |
| | | | | | | |
| Eastern | 3.4 | 3.3 | 1.7 | 1.7 | 0.7 | 0.7 |
| East Midlands | 2.9 | 2.5 | 1.1 | 0.9 | 0.6 | 0.4 |
| London | 3.8 | 3.4 | 1.5 | 1.3 | 0.7 | 0.6 |
| North East | 2.3 | 1.9 | 0.8 | 0.6 | 0.4 | 0.3 |
| North West | 2.5 | 2.3 | 1.0 | 0.9 | 0.4 | 0.3 |
| South East | 3.8 | 4.1 | 2.0 | 2.2 | 0.7 | 0.9 |
| South West | 3.2 | 3.0 | 1.5 | 1.4 | 0.6 | 0.4 |
| West Midlands | 2.9 | 2.4 | 1.3 | 1.0 | 0.5 | 0.5 |
| Yorkshire & Humberside | 2.6 | 2.0 | 1.2 | 0.7 | 0.5 | 0.3 |

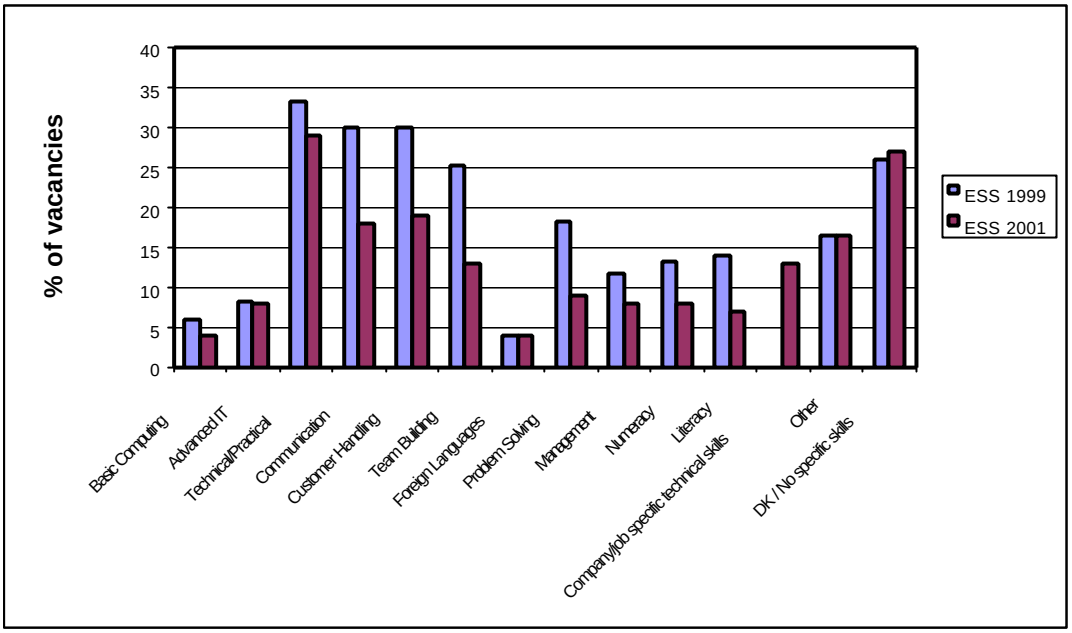
Base: all establishments

* ESS 2001 figures are based on all establishments excluding those in the agriculture sector and those with fewer than 5 employees

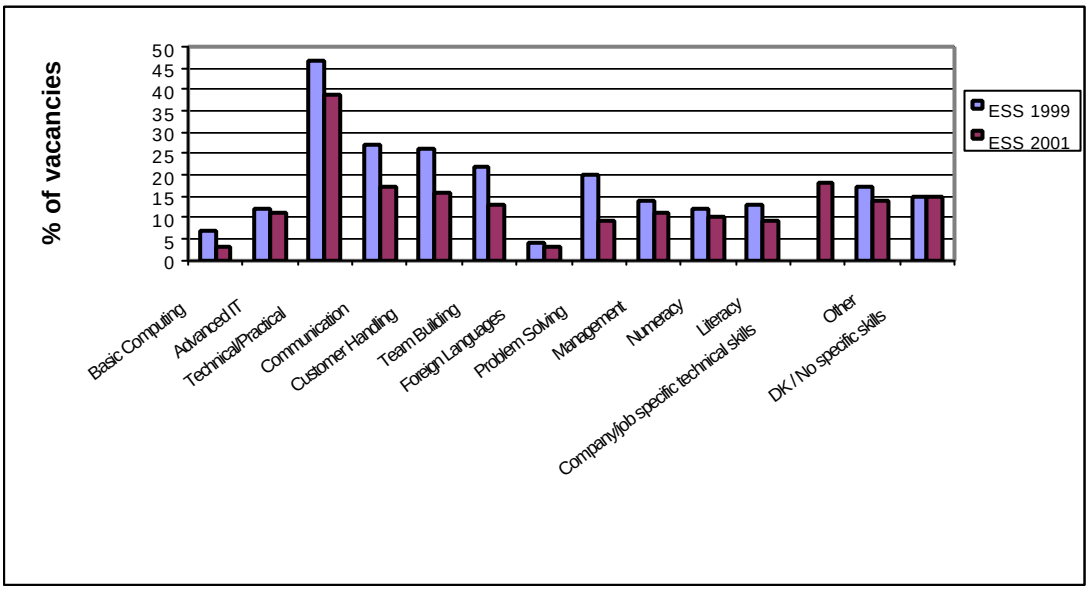
## 6.8 Skills characteristics of hard-to-fill and skill shortage vacancies

As can be seen from figure 6.8, the hierarchy of skills sought in connection with hard-to-fill and skill-shortage vacancies has changed little in the period between ESS 1999 and ESS 2001.

**FIGURE 6.8**
**SKILLS SOUGHT FOR HARD-TO-FILL AND SKILL SHORTAGE VACANCIES**




Source: STF Employers' Survey (IER/IFF) and ESS 2001 (IFF/IER)
All: Hard-to-fill vacancies



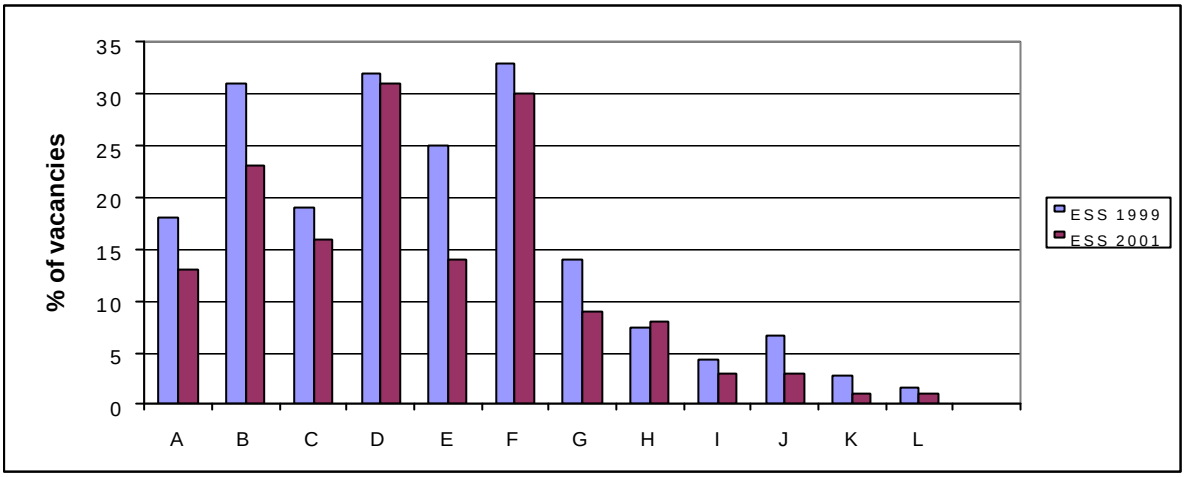

Source: STF Employers' Survey (IER/IFF) and ESS 2001 (IFF/IER)
All: Skill shortage vacancies

Technical and practical, communication and customer handling skills remain the most commonly reported skills sought in connection with both types of vacancy, though all of these skills are reported to be lacking to a lesser degree than in 1999. However, in this years survey a new option was offered to employers in response to this question, namely 'company or job specific skills'. It is notable that this was cited as a skill sought for 13 per cent of hard-to-fill vacancies and for 18 per cent of skill shortage vacancies, again emphasising the importance of technical skills in skill related recruitment difficulties.

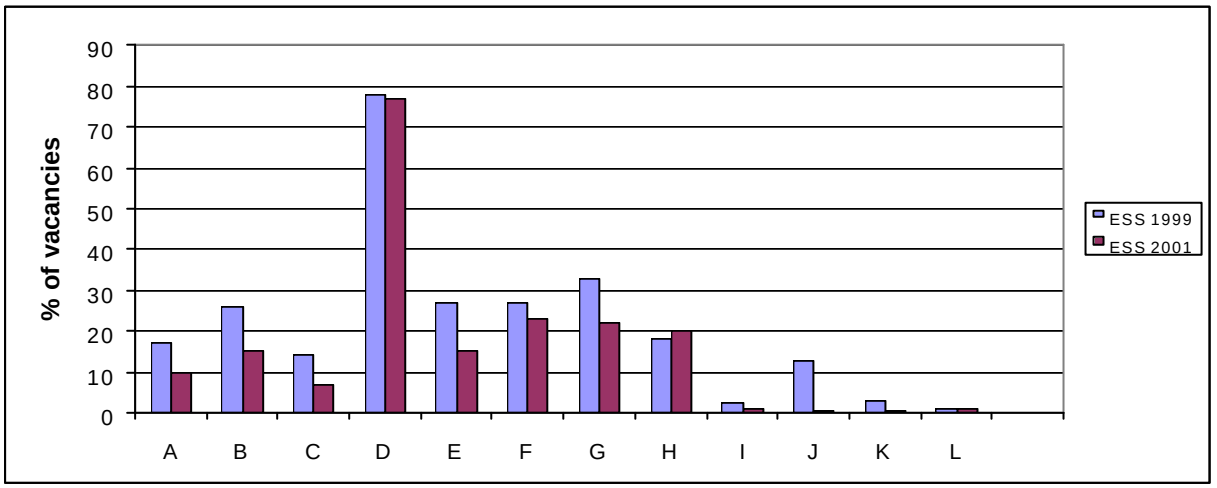
## 6.9 Causes of Recruitment Problems

Just as the hierarchy of skill sought in connection with hard-to-fill and skill-shortage vacancies has not changed in the period between ESS 1999 and ESS 2001, nor has the hierarchy of causes of both types of vacancy (*see Figure 6.9*). Moreover, all causes are cited in lesser number than in 1999, with the exception of a shortage of qualifications which is more commonly cited in respect of both skill shortage and hard-to-fill vacancies.

**FIGURE 6.9**
**CAUSES OF HARD-TO-FILL AND SKILL-SHORTAGE VACANCIES**




Source: STF Employers' Survey (IER/IFF) and ESS 2001 (IFF/IER)
Base: All hard-to-fill vacancies




Source: STF Employers' Survey (IER/IFF) and ESS 2001 (IFF/IER)
Base: All skills shortage vacancies

Key:

A - Too much competition
B – Not enough people interested
C – Company does not pay enough
D – Low number of applicants with skills
E – Low number of applicants with motivation etc.
F – Low number of applicants generally
G – Lack of work experience
H – Lack of qualifications
I – Company location
J – Irregular Hours
K –Unattractive conditions of work
L – Other

## 6.10 Internal skill gaps

As discussed in Chapter 3, in order to gauge the extent of skill gaps respondents were asked:

> "What proportion of your existing staff at this establishment in [a particular occupation] would you regard as being fully proficient at their current job: all, nearly all, over half, some but under half, very few, none?"

Chapter three explains in detail how responses to the above question are used to reach a quantification of internal skill gaps. Encouragingly, fewer skill gaps were reported in 2001 than in 1999. Taking the narrow definition of a skill gap - where employers stated that over half or fewer employees in any given occupational category lack the skills needed to perform their job role effectively - more than 110,000 fewer such gaps were reported in ESS 2001 than in the previous survey, a reduction of around 13% (*see Table 6.9*).

**TABLE 6.8**

**TOTAL NUMBER OF SKILL GAPS**

| | | ESS 1999 | ESS 2001 |
|---|---|---|---|
| **Establishment measures** | | | |
| All skills gaps (broad definition) | Weighted base | 307k | 281k |
| | Unweighted base | 17k | 13k |
| All gaps where "over half" or fewer employees are fully proficient | Weighted base | 105k | 88k |
| | Unweighted base | 6k | 4k |
| **Employee measures** | | | |
| All skills gaps (broad definition) | Weighted base | 1.9 million | 1.8 million |
| | Unweighted base | 0.3 million | 0.2 million |
| All gaps where "over half" or fewer employees are fully proficient | Weighted base | 860k | 748k |
| | Unweighted base | 123k | 91k |
| All skill gaps that were followed up[2] | Weighted base | 812k | 677k |
| | Unweighted base | 114k | 80k |

The proportions of establishments reporting that all staff were fully proficient has risen across all occupational groupings since ESS 1999 (*see Table 6.9*). In most cases, this increase can be seen to be part of a general pattern of increased proficiency. Only in the case of associate professional / technical occupations do a greater number of establishments report employees within this category to be less proficient than in 1999.

[2] In order to ensure that the questionnaire did not place too onerous a burden on employers, follow-up questions as to the nature, cause and impact of internal skill gaps were only asked for a maximum of two occupational groups within any one establishment.

**TABLE 6.9**

**INTERNAL SKILL GAPS AND EMPLOYEE PROFICIENCY LEVELS, ANALYSED BY OCCUPATION (a)**

| | | All staff fully proficient at current jobs | Nearly all staff proficient at current jobs | 'Over half' or fewer staff proficient at current jobs (Internal skill gaps) | Don't know | Total | % of establishments reporting employment within occupation | Weighted Base | Unweighted Base |
|---|---|---|---|---|---|---|---|---|---|
| Managers/senior officials (b) | ESS 1999 | 67 | 24 | 8 | 1 | 100 | 98 | 522260 | 26558 |
| | ESS 2001 | 73 | 20 | 6 | 1 | 100 | 90 | 513299 | 21709 |
| Professional | ESS 1999 | 69 | 24 | 5 | 2 | 100 | 39 | 205377 | 12914 |
| | ESS 2001 | 73 | 22 | 4 | 1 | 100 | 34 | 192322 | 10067 |
| Ass. professional/technical | ESS 1999 | 64 | 26 | 7 | 3 | 100 | 25 | 132099 | 9743 |
| | ESS 2001 | 66 | 25 | 8 | 1 | 100 | 23 | 131903 | 7143 |
| Administrative/secretarial | ESS 1999 | 65 | 25 | 8 | 1 | 100 | 63 | 336868 | 20130 |
| | ESS 2001 | 73 | 21 | 5 | 1 | 100 | 62 | 352992 | 17043 |
| Skilled trades | ESS 1999 | 61 | 29 | 9 | 2 | 100 | 28 | 149093 | 10427 |
| | ESS 2001 | 66 | 25 | 8 | 1 | 100 | 28 | 156278 | 8342 |
| Personal service occupations | ESS 1999 | 56 | 30 | 12 | 2 | 100 | 23 | 119668 | 7396 |
| | ESS 2001 | 62 | 26 | 11 | 1 | 100 | 20 | 114338 | 6745 |
| Sales/customer service | ESS 1999 | 52 | 33 | 14 | 2 | 100 | 34 | 180155 | 9628 |
| | ESS 2001 | 57 | 32 | 10 | 1 | 100 | 34 | 193170 | 7890 |
| Process, plant & machine operatives | ESS 1999 | 57 | 30 | 10 | 3 | 100 | 18 | 96741 | 7072 |
| | ESS 2001 | 63 | 26 | 10 | 1 | 100 | 18 | 100839 | 5557 |
| Elementary occupations | ESS 1999 | 65 | 24 | 9 | 2 | 100 | 28 | 150329 | 9628 |
| | ESS 2001 | 68 | 22 | 9 | 1 | 100 | 25 | 144679 | 7719 |

Source: STF Employers' Survey (IER/IFF)

Base: All establishments employing at least one person in respective occupations

Note: (a) The survey question on this topic asked respondents: 'What proportion of your existing staff at this establishment in [each occupation] would you regard as being fully proficient at their current job: all, nearly all, over half, some but under half, very few?'. Internal skill gaps are then defined as the sum of the percentages responding that over half or fewer staff were proficient in their current jobs.

(b) As a result of the introduction of SOC 2000, occupational categories were changed between the two surveys. Categories shown in the table are those used in ESS 2001

There has been a proportionate fall in the number of establishments reporting internal skills gaps (from 20% in 1999 to 16% in 2001 – see Table 6.10). This fall has been felt relatively evenly across all sizes of establishment and across all sectors, with the exception of the "other services" sector, where there has been a larger fall (from 21% to 13% of all establishments).

**TABLE 6.10**

**INCIDENCE OF INTERNAL SKILL GAPS, ANALYSED BY ESTABLISHMENT SIZE AND SECTOR**

| | Percent of establishments reporting internal skills gap (a) | |
|---|---|---|
| | ESS 1999 | ESS 2001 |
| All establishments | 20 | 16 |
| By size of establishment: (number of employees) | | |
| 5-24 | 18 | 14 |
| 25-49 | 24 | 20 |
| 50-99 | 26 | 22 |
| 100-199 | 27 | 22 |
| 200-499 | 29 | 24 |
| 500-999 | 26 | 26 |
| 1000-plus | 26 | 23 |
| By sector (b): | | |
| Manufacturing | 21 | 19 |
| Construction | 16 | 15 |
| Wholesale & Retail | 21 | 16 |
| Hotels & Restaurants | 23 | 20 |
| Transport & Communications | 20 | 14 |
| Financial Services | 20 | 15 |
| Business Services | 18 | 14 |
| Public Administration | 19 | 15 |
| Education | 15 | 10 |
| Health & Social Care | 17 | 15 |
| Other Services | 21 | 13 |

Source: STF Employers' Survey (IER/IFF)
Base: All establishments
(a) Refers to establishments where 'over half' or fewer of staff were assessed as being fully proficient at their current jobs in at least one occupation (see Note (a) and (b) to *Table 3.1*).
(b) Mining and quarrying and Electricity and water are not shown due to small cell sizes

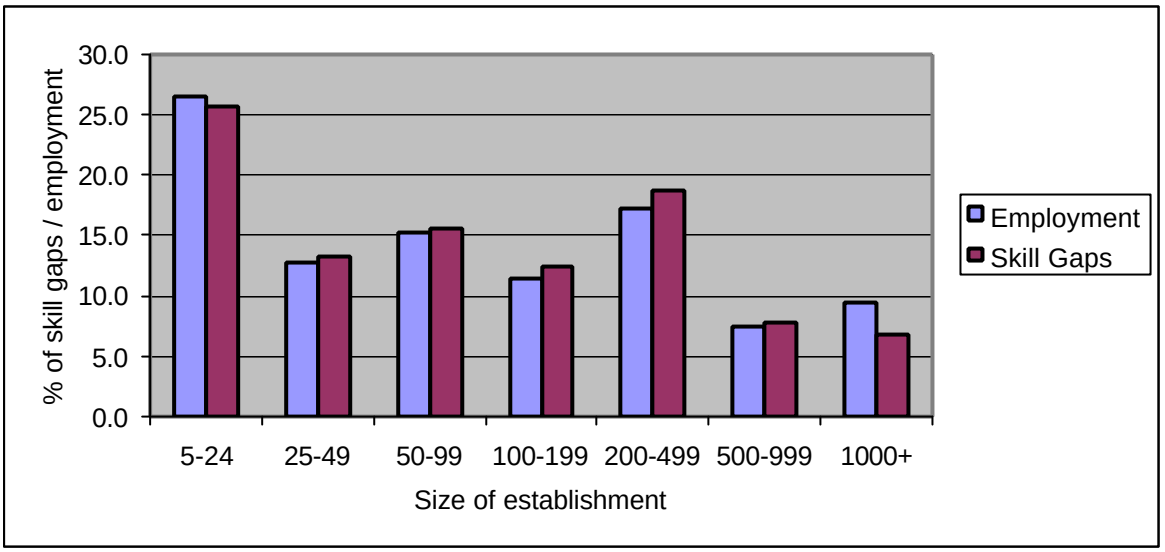
## 6.11 Skill gaps by size of establishment

The distribution of skill gaps by size of establishment (number of employees) is shown in figure 6.10. The pattern is very similar across ESS 1999 and ESS 2001.

**FIGURE 6.10**

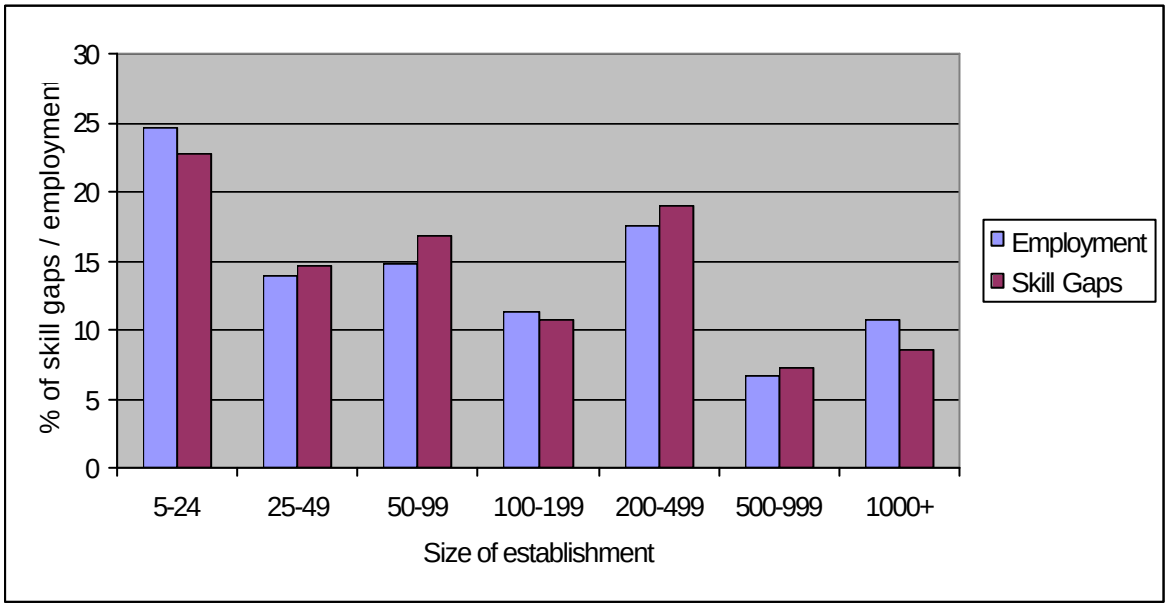
**INTERNAL SKILL GAPS AND SIZE OF ESTABLISHMENT**

**ESS 1999**




Source: STF Employers' Survey (IER/IFF)

**ESS 2001**




Source: ESS 2001 (IFF/IER)

*Table 6.11* looks at skills gaps as a proportion of employment across establishments of different sizes for ESS 1999 and ESS 2001.

**TABLE 6.11**

**INTERNAL SKILL GAPS AS A PROPORTION OF EMPLOYMENT BY SIZE OF ESTABLISHMENT**

| | Skill gaps as a % of employment | |
|---|---|---|
| | **ESS 1999** | **ESS 2001*** |
| | **%** | **%** |
| **All establishments** | 4.9 | 4.1 |
| | | |
| 5-24 employees | 4.7 | 3.8 |
| 25-49 employees | 5.1 | 4.3 |
| 50-99 employees | 5.0 | 4.7 |
| 100-199 employees | 5.3 | 3.9 |
| 200-499 employees | 5.3 | 4.4 |
| 500-999 employees | 5.1 | 4.4 |
| 1000+ employees | 3.5 | 3.3 |

Base: all establishments

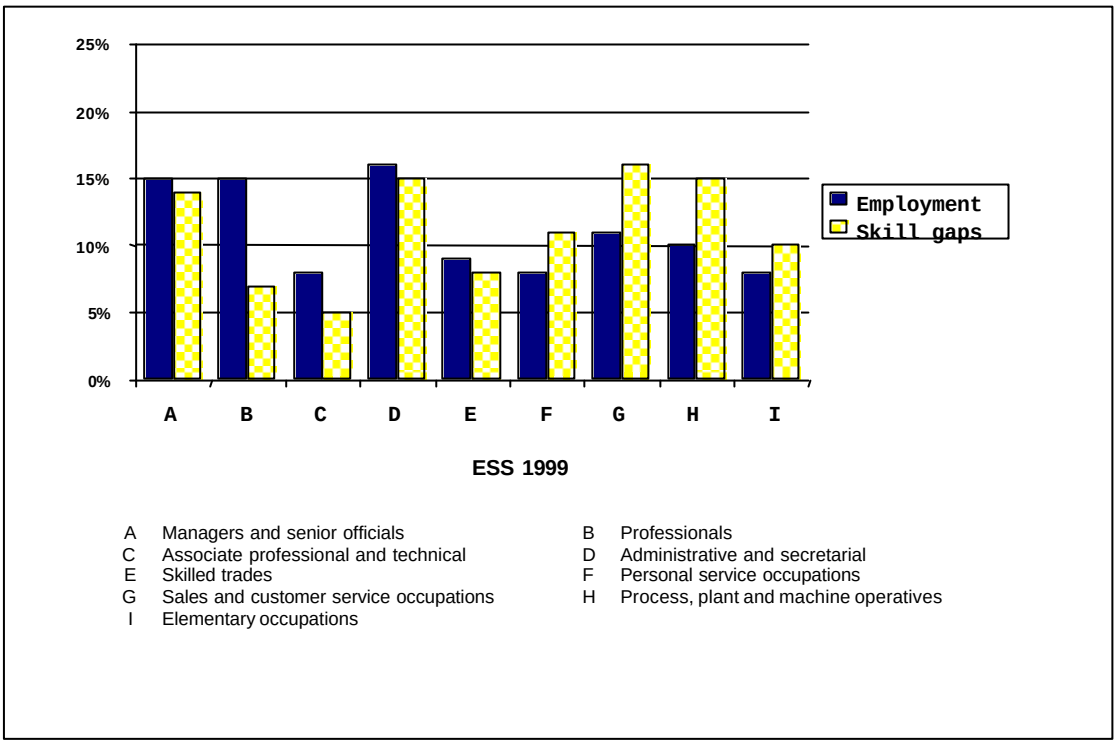
* ESS 2001 figures are based on all establishments excluding those in the agriculture sector and those with fewer than 5 employees

For establishments of all sizes, skill gaps represent less of a problem than in 1999, in so far as smaller proportions of the workforce are affected.

## 6.12 Skill gaps by occupation

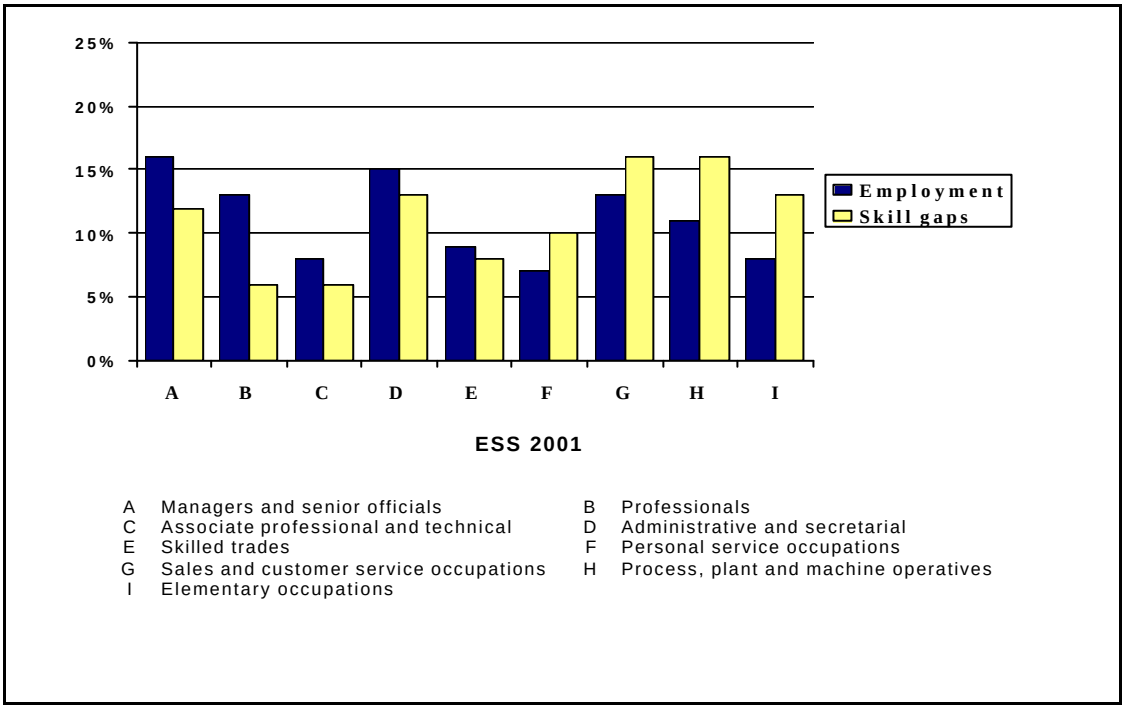
The distribution of skill gaps by occupation is shown in figure 6.11 for ESS 1999 and ESS 2001. Changes have been minimal; managers now represent a smaller proportion of all skill gaps, as do elementary occupations and to a slightly lesser extent operatives.

**FIGURE 6.11**
**INTERNAL SKILL GAPS AND OCCUPATION**




**ESS 1999**

A Managers and senior officials
B Professionals
C Associate professional and technical
D Administrative and secretarial
E Skilled trades
F Personal service occupations
G Sales and customer service occupations
H Process, plant and machine operatives
I Elementary occupations




**ESS 2001**

A Managers and senior officials
B Professionals
C Associate professional and technical
D Administrative and secretarial
E Skilled trades
F Personal service occupations
G Sales and customer service occupations
H Process, plant and machine operatives
I Elementary occupations

*Table 6.12* looks at skills gaps as a proportion of employment across occupational categories. Skill gaps are less prevalent everywhere with the exception of elementary occupations.

**TABLE 6.12**

**INTERNAL SKILL GAPS AS A PROPORTION OF EMPLOYMENT BY OCCUPATION**

| | Skill gaps as a % of employment | |
|---|---|---|
| | **ESS 1999** | **ESS 2001*** |
| | **%** | **%** |
| **All occupations** | 4.9 | 4.1 |
| | | |
| Managerial and senior officials | 4.8 | 4.0 |
| Professionals | 2.3 | 1.9 |
| Associate professionals and technical occupations | 3.0 | 2.8 |
| Administrative and secretarial | 4.4 | 3.3 |
| Skilled trades | 4.2 | 3.6 |
| Personal services | 6.8 | 5.4 |
| Sales and customer service occupations | 7.2 | 5.0 |
| Process, plant and machine operatives | 6.9 | 5.9 |
| Elementary occupations | 6.1 | 6.4 |

Base: all establishments

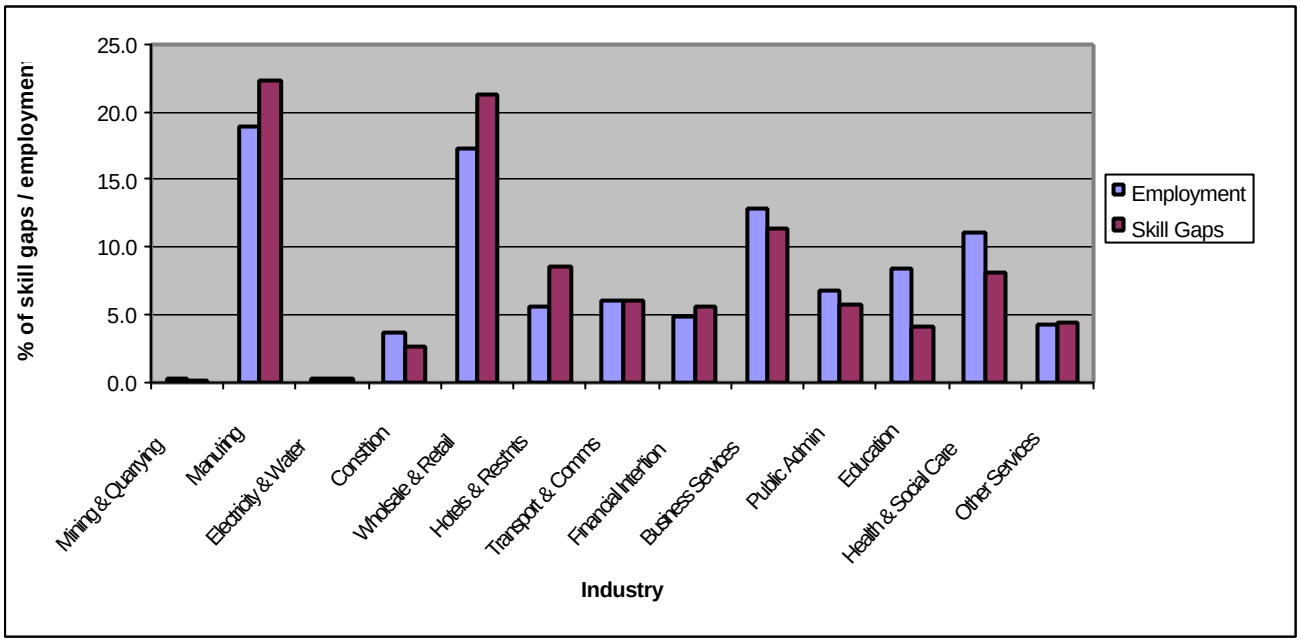
* ESS 2001 figures are based on all establishments excluding those in the agriculture sector and those with fewer than 5 employees

## 6.13 Skill gaps by sector

*Figure 6.12* illustrates the distribution of skills gaps by sector for ESS 1999 and, comparatively, for ESS 2001. At overall level, the pattern of distribution has changed little if at all.

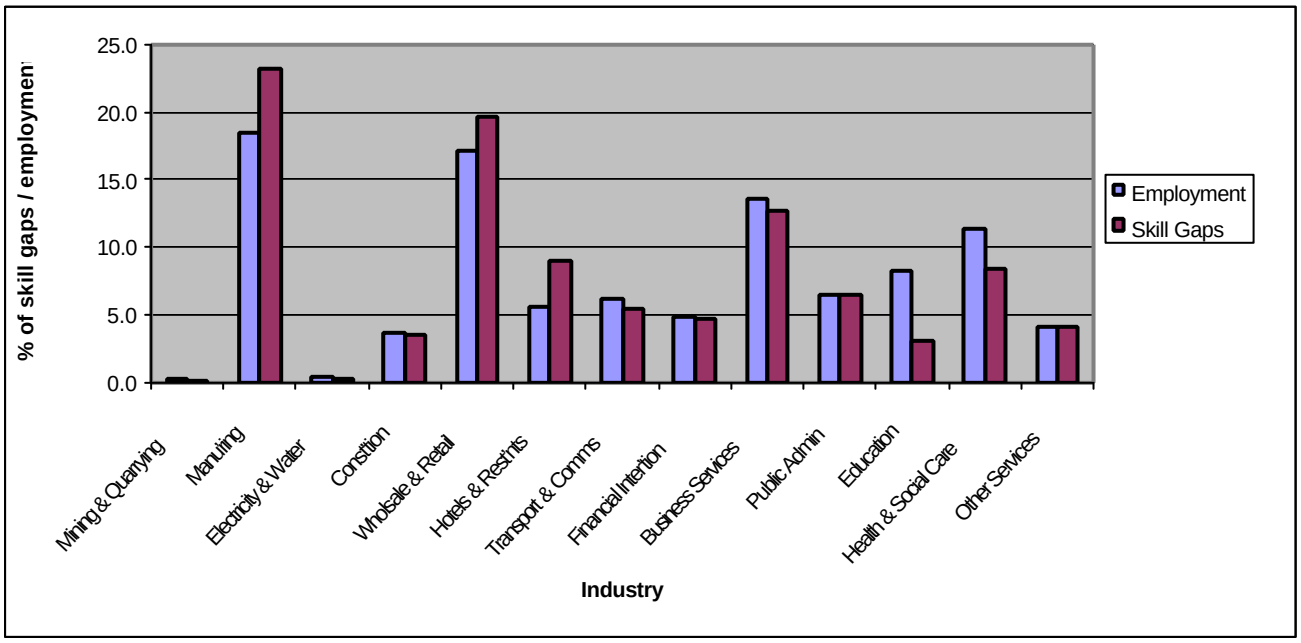
**Figure 6.12**
**Internal skill gaps and industrial sector**

**ESS 1999**




Source: STF Employers' Survey (IER/IFF)

**ESS 2001**




Source: ESS 2001 (IFF/IER)

The relationship of skill gaps and employment levels in different sectors is represented pictorially in figure 6.12. This relationship is quantified in table 6.13 below.

**TABLE 6.13**

**INTERNAL SKILL GAPS AS A PROPORTION OF EMPLOYMENT BY SECTOR**

| | Vacancies as a % of employment | |
|---|---|---|
| | ESS 1999 | ESS 2001* |
| | % | % |
| **All sectors** | 4.9 | 4.1 |
| | | |
| Manufacturing | 5.6 | 5.1 |
| Construction | 3.6 | 3.9 |
| Wholesale & Retail | 6.0 | 4.7 |
| Hotels & Restaurants | 4.5 | 6.6 |
| Transport & Communications | 6.3 | 3.6 |
| Financial Services | 5.6 | 3.9 |
| Business Services | 4.3 | 3.8 |
| Public Administration | 4.2 | 4.2 |
| Education | 2.3 | 1.6 |
| Health & Social Care | 3.6 | 3.0 |
| Other Services | 5.1 | 4.0 |

Base: all establishments

* ESS 2001 figures are based on all establishments excluding those in the agriculture sector and those with fewer than 5 employees

There has been little overall change to the hierarchy of industries affected by skill gaps and, in most sectors, skill gaps have decreased as a proportion of employment since 1999. Exceptions to this are the hospitality sector (hotels and restaurants) where skill gaps have increased significantly as a proportion of employment (from 4.5 per cent to 6.6 per cent), the construction sector which saw an increase from 3.6 per cent to 3.9 per cent, and public administration where skill gaps remain at the same level as a proportion of employment as in 1999.

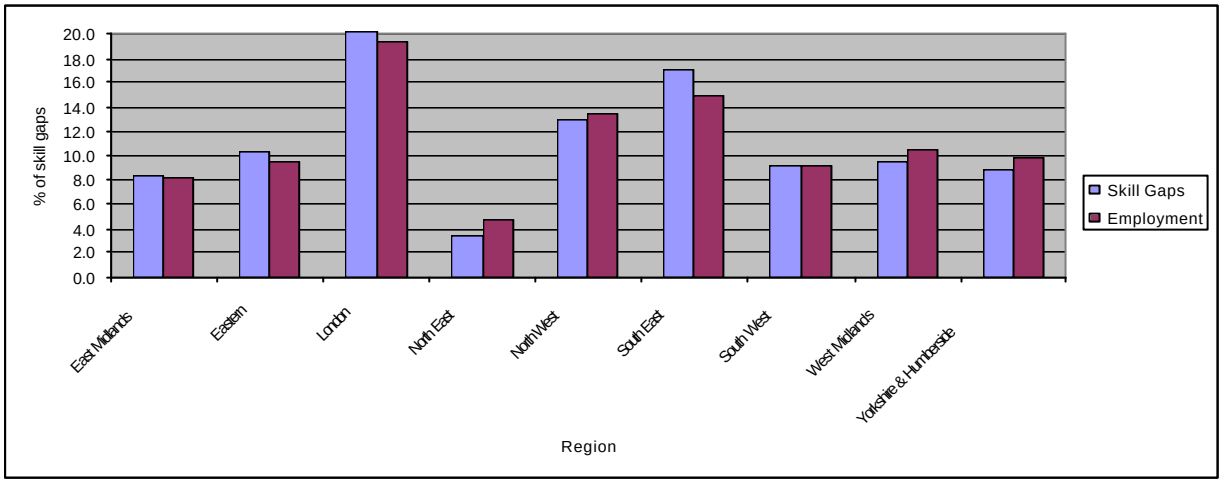
## 6.13 Skill gaps by region

*Figure 6.13* illustrates the distribution of skills gaps by sector for ESS 1999 and, comparatively, for ESS 2001. The South West appears to be suffering from internal skill gaps to a greater extent than in 1999. 12% of all skill gaps are reported in this region, compared to 9% in 1999. Moreover, the proportion of skill gaps in the South West exceeds the proportion of employment.

London and the South East remain the key loci of skill gaps, with the South East now having a larger share than London. Between them these two regions accounted for around a third of all such gaps. The West Midlands now has a share of skill gaps disproportionate to its share of employment.

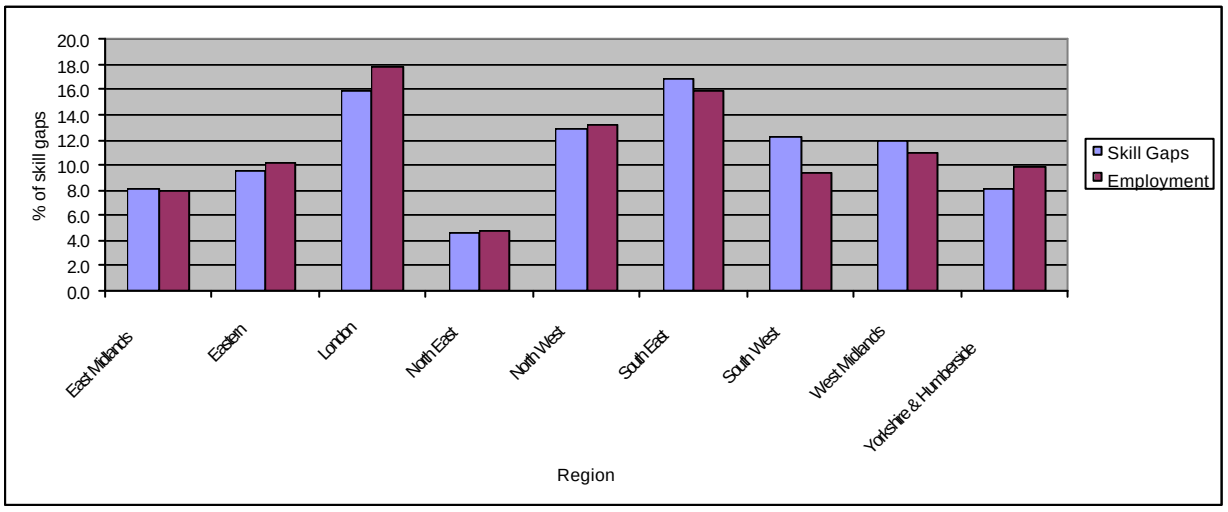
**Figure 6.13**
**Internal skill gaps by region**

**ESS 1999**




Source: STF Employers' Survey (IER/IFF)

**ESS 2001**




Source: ESS 2001 (IFF/IER)

Table 6.14 compares internal skill gaps as a proportion of employment within each region for 1999 against 2001.

**TABLE 6.14**

**INTERNAL SKILL GAPS AS A PROPORTION OF EMPLOYMENT BY REGION**

| | Vacancies as a % of employment | |
|---|---|---|
| | ESS 1999 | ESS 2001* |
| | % | % |
| **All regions** | 4.9 | 4.1 |
| | | |
| Eastern | 5.3 | 3.8 |
| East Midlands | 5.0 | 4.1 |
| London | 5.1 | 3.7 |
| North East | 3.5 | 4.0 |
| North West | 4.7 | 4.0 |
| South East | 5.5 | 4.4 |
| South West | 4.9 | 5.4 |
| West Midlands | 4.4 | 4.5 |
| Yorkshire & Humberside | 4.4 | 3.4 |

Base: all establishments

* ESS 2001 figures are based on all establishments excluding those in the agriculture sector and those with fewer than 5 employees

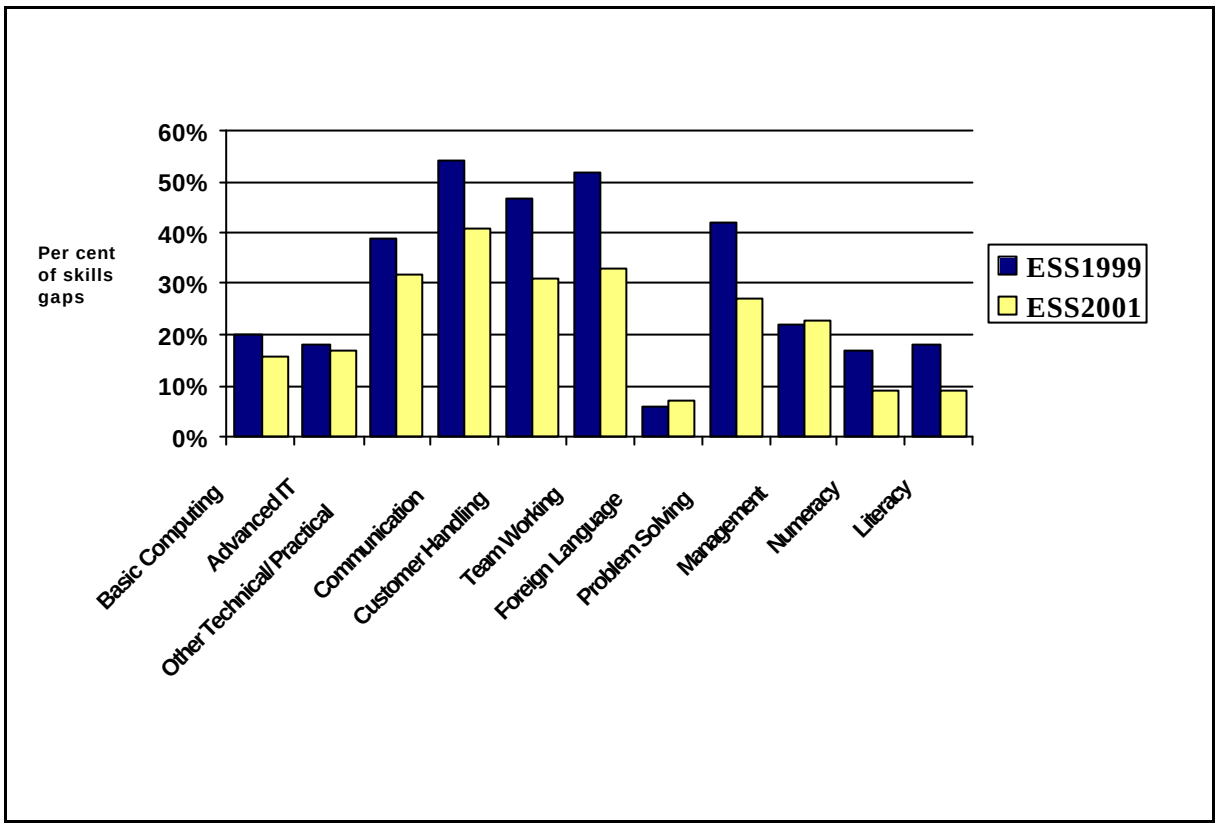
While the overall level of skill gaps nationally has decreased, within the North East, the South West and to a lesser extent the West Midlands, skill gaps now represent a larger proportion of employment than in 1999. Elsewhere, skill gaps have decreased as a proportion of employment.

## 6.14 Skills sought in connection with internal skill gaps

Figure 6.16 illustrates changes in the skills lacking where skills gaps were reported between ESS 1999 and ESS 2001.

All skills, apart from management skills and foreign language skills were less frequently mentioned in the context of skill gaps than in 1999.

**FIGURE 6.16**
**SKILLS SOUGHT IN CONNECTION WITH INTERNAL SKILL GAPS**

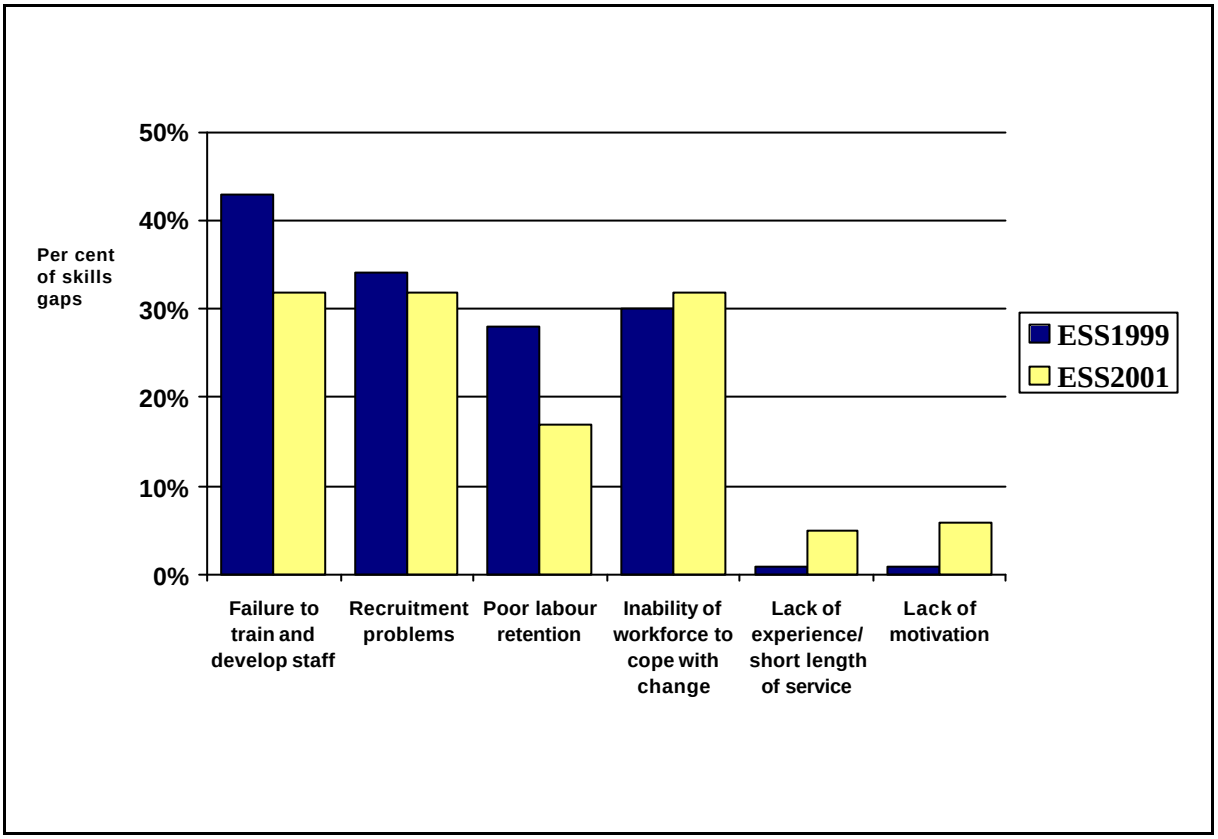



Base: All internal skill gaps that were followed up
Source: **ESS 2001 (IFF / IER) and ESS 1999 (IER / IFF)**

## 6.15 Causes of skill gaps

Findings from ESS 2001 suggest that the causes of skill gaps are considerably less involved with the failure to train and develop staff and with problems associated with high staff turnover. Slightly more gaps are associated with the inability of the workforce to cope with change than in 1999. Proportionately, the greatest changes are in the numbers of internal skill gaps whose cause lies – at least in part – in a lack of experience of staff/short length of service and/or a lack of motivation.

**FIGURE 6.17**
**MAIN CAUSES ASSOCIATED WITH INTERNAL GAPS**

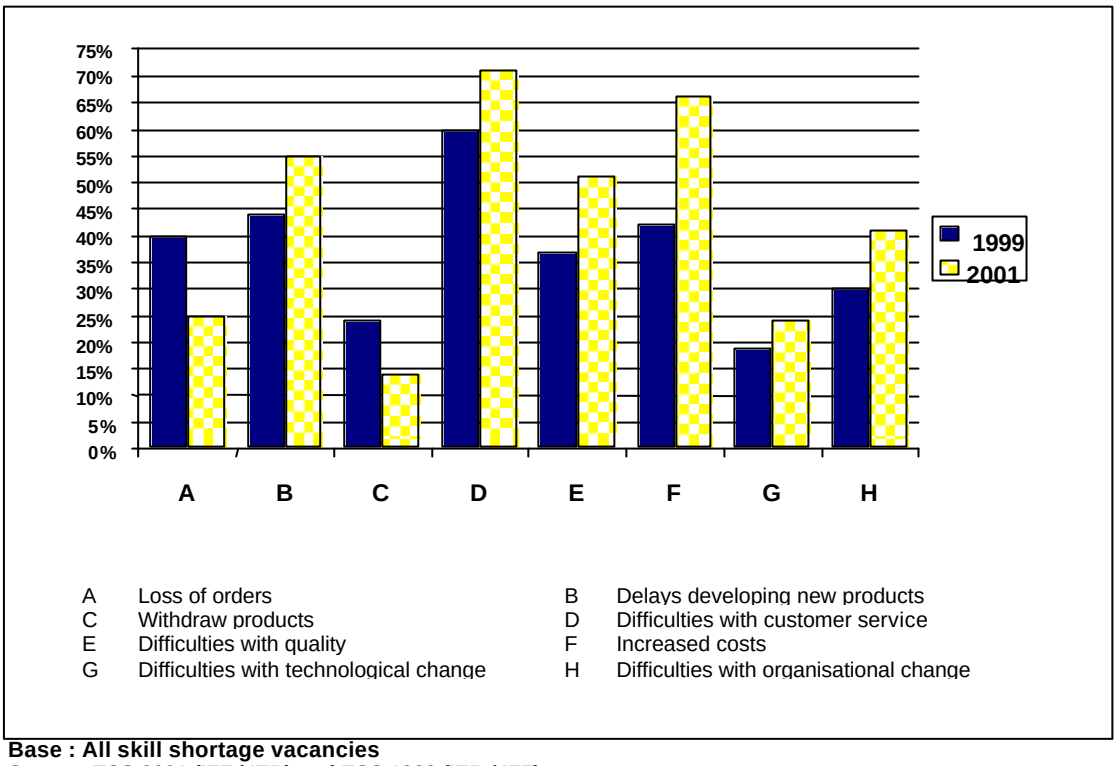



Base: All internal skill gaps that were followed up
Source: **ESS 2001 (IFF / IER) and ESS 1999 (IER / IFF)**

## 6.16 Impact of skill deficiencies

*Figure 6.16* illustrates the changing impacts employers believe the existence of skill-shortage vacancies has on performance for ESS 1999 and ESS 2001.

**FIGURE 6.16**
**IMPACT OF SKILL-SHORTAGE VACANCIES ON PERFORMANCE**




**Base : All skill shortage vacancies**
**Source: ESS 2001 (IFF / IER) and ESS 1999 (IER / IFF)**

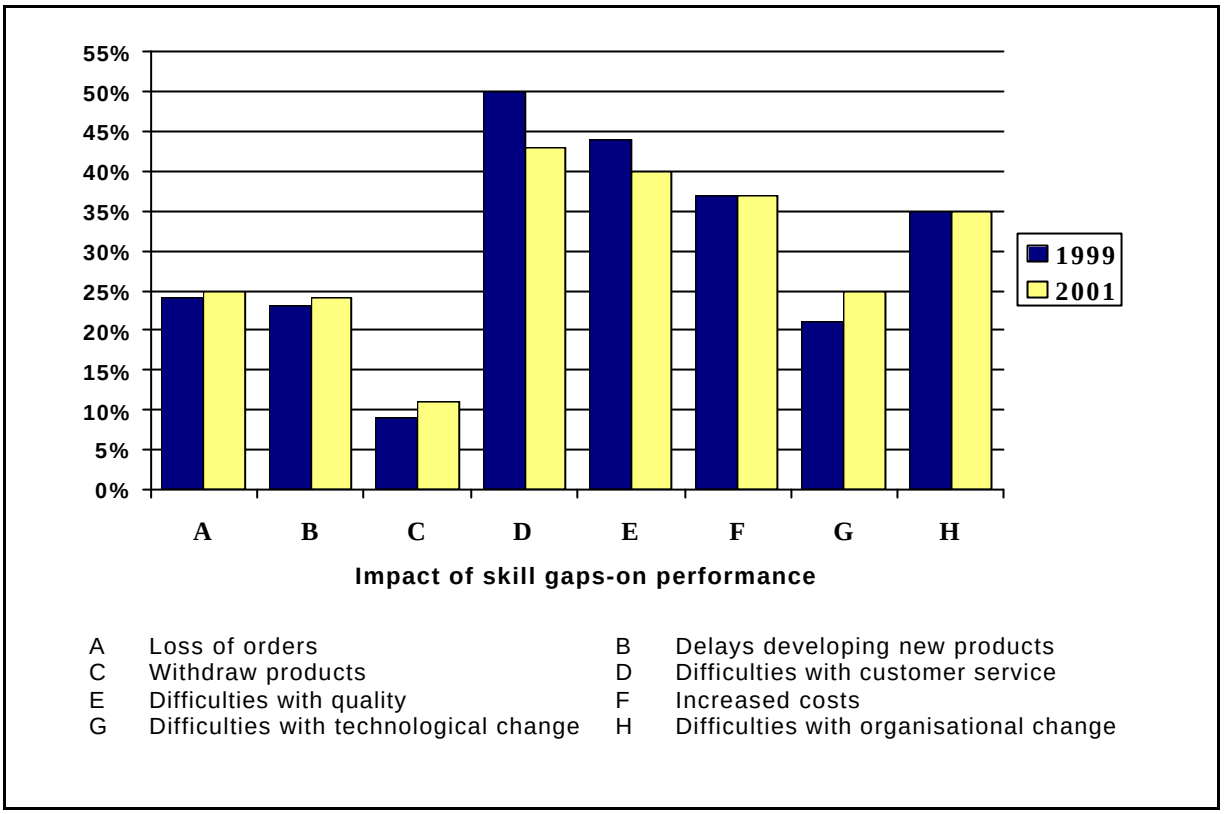
Skill-shortage vacancies are having a greater impact in almost all areas of performance than in 1999, with two key exceptions: loss of orders and needing to withdraw products.

This is perhaps a surprising pattern of response. If skill-shortage vacancies are having a greater impact in all internal measures of performance, then one might reasonably expect there to be a correlative impact on the key external interface – i.e. orders or levels of business conducted.

The fact that skill-shortage vacancies are reported to be having less of an impact on orders suggests either a buoyant, less exacting market – or that employers are underestimating / under-reporting the (potential) impact of such problems on the levels of business they conduct.

In terms of skill gaps, changes in impact between 1999 and 2001 are less consistent as illustrated in *Figure 6.17*

**FIGURE 6.17**
**INTERNAL OF SKILL GAPS ON PERFORMANCE**



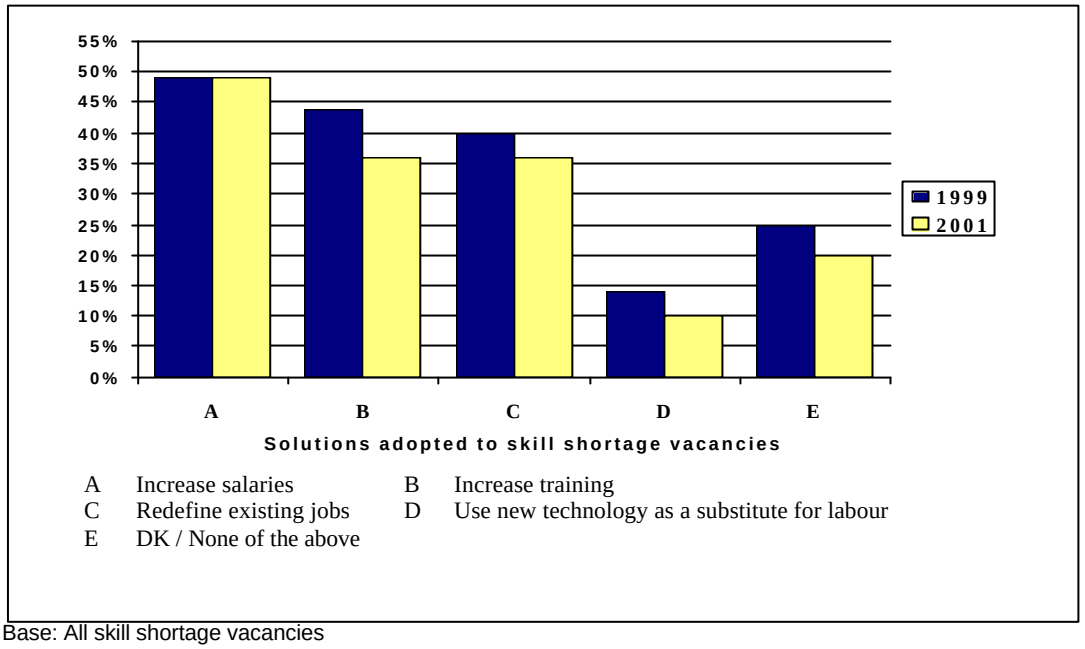

Base: All internal skill gaps that were followed up
Source: **ESS 2001 (IFF / IER) and ESS 1999 (IER / IFF)**

Skill gaps are having a similar impact in almost all areas of performance. Difficulties meeting internal customer service objectives and required quality standards remain the primary impacts of skill gaps although their importance relative to other impacts has decreased a little.

## 6.17 Solutions adopted to combat skill deficiencies

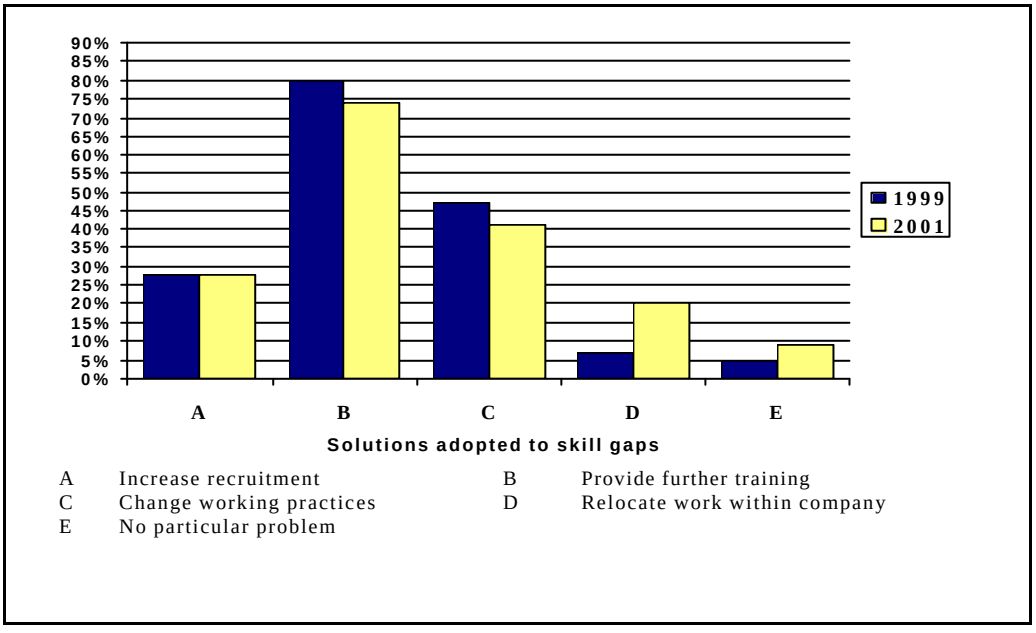
Establishments responses to skills deficiencies (external skill-shortage vacancies and internal skill gaps) across ESS 1999 and ESS 2001 are shown in *Figure 6.18 and Figure 6.19* below.

**FIGURE 6.18**
**SOLUTIONS ADOPTED TO SKILL-SHORTAGE VACANCIES**




Base: All skill shortage vacancies
Source : ESS 2001 (IFF / IER) and ESS 1999 (IER / IFF)

**FIGURE 6.19**
**SOLUTIONS ADOPTED TO SKILL-GAPS**




The hierarchy of solutions adopted in terms of both skill-shortage vacancies and skill gaps has changed little between 1999 and 2001. In respect of skill gaps, relocating work within other parts of the company is an increasingly common response. Increasing salaries to combat skill-shortage vacancies is at similar levels in 2001 to 1999. Otherwise all solutions to skill-shortage vacancies and skill gaps are less frequently adopted.

### 6.18 Conclusion

The reporting of skill shortage vacancies and internal skill gaps have both decreased in this years survey. Vacancies were reported by 27% of establishments, though, as last year, around a half of establishments reported hard-to-fill vacancies and around a half again were skill related. There were 15,000 fewer skill shortage vacancies reported in this survey, representing a 14% decrease. Similarly, the number of internal skill gaps has also decreased, by around 17,000 or 16%.

Both these measures suggest skills issues are not as severe in this survey, though they still affect a substantial proportion of employers. Whilst the overall hierarchy of responses to questions has not changed, for example the most significant problems remain in the same occupational areas and require the same skills to meet deficiencies, there are areas where problems have increased – skill shortage vacancies amongst professional and elementary occupations; amongst the business services and health and social care sectors and growing skill deficiencies in the South East, South West, West Midlands and Eastern regions.