

# BULLETIN

## Extents, causes and implications of skill deficiencies

### Background

This *Bulletin* provides an overview of a project which was undertaken to meet the needs of the Skills Task Force (STF) for information on the extent, causes and implications of skill deficiencies. It summarises the results of the STF Employers' Survey conducted as part of the project, presenting new survey evidence on the extent and nature of imbalances between skills supply and demand as reported by employers.

### Skill Deficiencies

Two different kinds of skill deficiency have been identified:

external *recruitment difficulties*, focusing in particular on hard-to-fill vacancies and what are referred to as *skill-shortage vacancies*, (external recruitment difficulties 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 lack full proficiency at their current jobs).

### Evidence from the STF Employers' Survey

The survey evidence demonstrates that the incidence of recruitment problems was widespread, with over 30 per cent of all establishments surveyed in 1999 reporting vacancies, of which 16 per cent were hard-to-fill vacancies. Almost half of the latter were *skill-shortage vacancies*, that is they were skill related (see Table 1).

**TABLE I**  
**OVERALL NUMBER OF VACANCIES**

	% of all establishments reporting	Number of vacancies (a) '000s
All vacancies	32	560
Hard-to-fill vacancies	16	255
Skill-shortage vacancies	8	110
Weighted Base	533572	–
Unweighted Base	26952	–

Source: STF Employers' Survey (IER/IFF)

Base: All establishments

Note: (a) Grossed up survey-based estimates (these refer to establishments with five or more employees).  
(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'.

The other main causes of recruitment difficulty were lack of interest from job-seekers in particular kinds of jobs and low numbers of applicants with the required personal attributes in terms of attitudes and motivation.

Based on the STF Employers' Survey, the grossed up estimate of the total number of vacancies reported by all the establishments in England was approximately 560 thousand. The estimated total number of hard-to-fill and *skill-shortage vacancies* was around 250 thousand and 110 thousand respectively.

**TABLE 2**  
**OVERALL DISTRIBUTION OF SKILL-SHORTAGE VACANCIES BY SECTOR AND OCCUPATION**

										Row percentages		
	Managers	Professionals	Associate Professionals	Clerical & Secretarial	Craft & Related	Personal & Protective Services	Sales & Related Operatives	Production & Process	Other	Total	Weighted Base	Unweighted Base
Mining & quarrying	*	*	*	*	*	*	*	*	*	100	35	3
Manufacturing	9	7	7	3	43	0	9	20	2	100	17546	2090
Electricity and Water	0	37	8	2	48	5	0	0	0	100	163	42
Construction	1	2	4	1	73	0	11	3	4	100	13704	927
Wholesale, retail trade	8	2	7	6	22	2	43	7	1	100	16128	953
Hotels & restaurants	4	0	0	6	1	62	3	0	24	100	7116	637
Transport & communication	7	2	10	16	2	1	4	55	3	100	7731	690
Finance	5	6	23	31	0	0	35	0	0	100	4219	453
Business services	10	18	29	13	11	7	7	4	1	100	19097	1736
Public Administration	8	16	16	52	0	7	0	0	0	100	1726	253
Education	24	32	13	8	0	20	3	0	0	100	4600	373
Health & Social work	3	6	62	4	0	23	1	0	0	100	11237	1568
Other Community Services	8	7	19	8	3	51	2	0	2	100	5307	323
DK/NA	1	8	1	13	54	0	6	12	4	100	982	75
Total	7	8	17	9	22	11	13	9	3	100	109590	10123

Source: STF Employers' Survey (IER/IFF)

Base: All skill-shortage vacancies

\* unweighted sample base too small to report percentages

The main occupations associated with *skill-shortage vacancies* were craft and skilled trades (accounting for just over a fifth of the total) and associate professional occupations (accounting for somewhat less). Sales occupations and personal service occupations were also significant categories, each accounting for just over a tenth of all such vacancies (see Table 2).

The industries most affected were the craft-intensive construction and manufacturing sectors and two large service industries (finance and business services).

The data demonstrate that hard-to-fill and *skill-shortage vacancies* were more commonly found in the London and South-East regions, both of which have experienced strong employment growth over recent years.

Responses to questions about the kinds of skill sought, lay heavy emphasis on both technical and generic skills.

### Skill Gaps

*Skill gaps* among existing employees were recognised by employers in about one in five of all establishments. Where such gaps were recognised they 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.

In total, it has been estimated that almost 2 million employees in England in 1999 were less than fully proficient in their jobs. The largest number of such employees were in clerical and secretarial occupations. When expressed as a proportion of employment in an occupation, however, it was in craft and skilled, personal service and sales occupations that the highest ratios occurred (around 13-14 per cent of employment).

Where a lack of full proficiency (as perceived by employers) typically involved a third or more staff in at least one occupational area, this is defined as an internal skills gap. In contrast to *skill-shortage vacancies*, *internal skill gaps* tended to occur in less-skilled occupations such as sales, personal service and operative and assembly occupations (see Table 3).

Not surprisingly, the largest sectors, such as manufacturing and distribution have large shares of all skill gaps. When compared, however, with total employment in the establishments surveyed it is clear that these two sectors also have a more than a proportionate share of such employees.

**TABLE 3**  
**OCCUPATIONAL PATTERN OF INTERNAL SKILL GAPS BY INDUSTRIAL SECTOR**

												Row percentages	
	Managers	Professionals	Technicians	Clerical/ Secretarial	Craft & Skilled	Personal Service	Sales	Operatives	Other manual	Total	Total skill gaps % of employment	Weighted base	Unweighted base
Mining & Quarrying	12	1	0	19	5	0	4	53	7	100	2.2	754	148
Manufacturing	13	4	3	7	16	1	5	42	10	100	5.6	185402	39414
Electricity & Water	23	3	3	21	4	0	2	16	28	100	5.0	2182	453
Construction	16	6	5	8	41	1	4	6	12	100	3.6	22551	2665
Wholesale & Retail	13	1	2	7	4	4	53	7	9	100	6.0	180086	21014
Hotels & Restaurants	10	1	1	2	5	61	9	1	9	100	7.4	72733	8404
Transport & Communications	15	2	2	13	4	3	6	34	20	100	4.9	51493	6519
Financial Intermediation	18	8	5	53	1	1	14	0	0	100	5.6	47428	7041
Business Services	18	14	10	21	5	4	7	7	13	100	4.3	96972	11606
Public Admin.	23	10	4	50	3	8	0	0	2	100	4.2	49251	6501
Education	16	34	6	11	4	16	1	0	10	100	2.3	32880	4327
Health & Social Care	14	9	17	13	4	27	1	1	13	100	3.6	68813	8655
Other Services	16	11	3	15	8	26	8	5	8	100	5.1	37371	3840
All Industries	15	7	5	15	8	11	16	15	10	100	4.9	860283	122607

Source: STF Employers' Survey (IER/IFF)

Base: Internal Skill Gaps: employee based measure

The regional data reveal that it was in the southern parts of England that respondents anticipated skill gaps having the greatest impact on business in the near future.

Almost half of establishments with skill gaps acknowledged that these were partly due to their own failure to train and develop staff. The main factors felt to be causing skill gaps were the introduction of new working practices, the development of new products, and the introduction of new technology.

The majority of establishments with internal skill gaps defined their problems in terms of employees lacking a desired *mix* of generic and vocational skills.

### Skill Deficiencies and Performance

Where they arose, there is evidence that external *recruitment difficulties* have had a significant impact on performance. Though *skill-shortage vacancies* affect a relatively small proportion of establishments at any point in time (about 1 in 12), they have negative consequences for many of these.

The principal effects of *skill-shortage vacancies* were: difficulties in meeting customer service objectives; delays in developing new products or services; increased operating

costs; and difficulties meeting required quality standards.

Where internal *skill gaps* were reported there is evidence that they also had an important impact on an establishment's performance. The main impacts were similar to those attributed to external recruitment problems: difficulties in meeting customer service objectives and required quality standards, along with increased operating costs.

A small but significant proportion of establishments with *skill gaps* reported that this had led to a loss of business to competitors. Moreover, in many others, there was evidence of impacts lowering customer care and quality standards and increasing operating costs. Ultimately, this could have an even greater impact on the volume of business undertaken.

A small but significant proportion of establishments also reported that they anticipated *skill gaps* having an impact on their business in the future. Again the anticipated impact was mainly upon customer care, quality standards and operating costs, although a substantial minority also anticipated that skill gaps might lead to a loss of business to competitors.

Respondents' answers to questions about their plans to try to improve their products and services suggest that this requires extensive skill change. Around 40 per cent of respondents

in private sector companies indicated that their establishments were planning to improve the quality of their products or services. Much of the skill change required was perceived to be generic, especially in relation to skills such as communication, customer relations, team-working, problem solving, and management skills.

A significant proportion of those establishments which were not planning to make such changes, were planning to improve the efficiency with which they currently operated. This group represented about a quarter of all private sector establishments. The survey data confirm that these changes were also expected to result in demands for new and additional skills.

The survey also provides evidence that existing skill problems may constrain establishments from such improvements although skills were thought to be less of a constraint than financial ones.

## Conclusions

The STF Employers' Survey confirms the importance of skills in any attempt to improve general economic performance.

According to the survey results, the impact of skill deficiencies on both current and expected future performance are important. Though the proportions responding that such problems lead to withdrawal from existing product areas or inability to meet customer service objectives are quite modest (around 2½ and 10 per cent respectively), these are quite drastic outcomes.

The evidence also indicates that, when establishments have attempted to move towards higher value-added markets or to otherwise improve their performance, they have revealed a wide range of additional skill requirements to achieve that goal. This suggests that latent skill gaps could be as important as perceived ones.

Perhaps most importantly from a policy perspective, the data confirm that a shortage of skills amongst the existing workforce is a key factor in inhibiting an establishment from achieving such goals. A substantial proportion of establishments reported that they would like to improve the quality of their products or services but they indicated that they were constrained from doing so by the skills available in their existing workforce.

The implication is that there is considerable scope for further investment in skill acquisition if the ambition of securing a long-term improvement in economic performance is to be achieved.

## Other Work for the National Skills Task Force

The Institute has been especially active in research relating to the programme of the National Skills Task Force.

Professor Elias, Professor Robert Lindley and Dr. Rob Wilson were all members of the Academic Support Group for the Task Force at various stages. Major projects were undertaken, partly in collaboration with other organisations, and the Institute has developed the Skillsbase web site for the DFEE. The occupational projections prepared by the Institute were co-ordinated by Dr. Wilson and involved collaboration with Cambridge Econometrics, the principal provider of multi-sectoral projections for the UK. The study summarised in this Bulletin was co-ordinated by Terence Hogarth and involved the participation of two of the IER's most long-standing Associate Fellows, Professor Derek Bosworth (University of Manchester Institute of Science and Technology) and Geoff Briscoe (Coventry University). Other organisations were also involved via the contribution of sectoral studies:

Business Strategies, London  
City University Business School, London  
Employment Studies Research Unit, Bristol  
Business School, UWE  
Institute for Employment Studies, Brighton  
Warwick Manufacturing Group, University of Warwick

### *The following publications have resulted to date:*

- Bosworth, D.L., (2000) *Management Skills*. Skills Task Force Research Paper SKT8, DfEE: London
- Bosworth, D., Davies, R., Hogarth, T., Wilson, R. and Shury, J. (2000) *Employers Skill Survey: Statistical Report*, DfEE, [www.dfee.gov.uk/skillsforce](http://www.dfee.gov.uk/skillsforce)
- Brown, A., Green, A., Pitcher, J. and Simm, C. (2000) *Employer Skill Survey: Health and Social Care Report*, DfEE, [www.dfee.gov.uk/skillsforce](http://www.dfee.gov.uk/skillsforce)
- Davis, C., Hogarth, T., Buckley, T. and Shackleton, R. (2000) *Employers Skill Survey: Engineering Report*, DfEE, [www.dfee.gov.uk/skillsforce](http://www.dfee.gov.uk/skillsforce)
- Elias, D.P.B. and McKnight, A., (1999) *Monitoring and measuring occupational change: the development of SOC 2000*. Skills Task Force Research Paper SKT24, DfEE: London
- Hasluck, C. (1999), Skills Task Force Research Paper 9, *Employment Prospects & Skill Needs in the Banking, Finance & Insurance Sector*, DfEE, [www.dfee.gov.uk/skillsforce](http://www.dfee.gov.uk/skillsforce)
- Rowley, G., Purcell, K., Richardson, M., Shackleton, R., Howe, S. and Whiteley, P. (2000) *Employer Skill Survey: Hospitality Sector*, DfEE, [www.dfee.gov.uk/skillsforce](http://www.dfee.gov.uk/skillsforce)
- Copies of the above studies are also available from:* DfEE Publications, PO Box 5050, Sherwood Park, Annesley, Nottingham NG15 0DJ, Tel: 0845 60 22260, Fax: 0845 60 333 60, Email: [dfee@prologistics.co.uk](mailto:dfee@prologistics.co.uk)
- Wilson, R.A. (2000) (ed.), *Projections of Occupations and Qualifications 1999/2000*, Sheffield, Department for Education and Employment, 142pp. [ISBN 1 84185 8]; [www.skillsbase.dfee.gov.uk](http://www.skillsbase.dfee.gov.uk). Copies may be obtained, free of charge, from the IER Promotion and Dissemination Office, University of Warwick, Coventry CV4 7AL; tel. 024 76524127, email: [carole.shields@warwick.ac.uk](mailto:carole.shields@warwick.ac.uk)