The Sector Skills Council for Science, Engineering and Manufacturing Technologies

National Employers Skills Survey 2007

Summary for SEMTA

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1 Background and Context

The National Employers Skills Survey 2007 (NESS07) is the fourth national employers skills survey commissioned by the Learning and Skills Council (LSC) (Report published June 2008).

NESS07 shares the aims of the previous NESS studies conducted in 2003, 2004 and 2005, namely to provide detailed analysis at a national, regional and sector level of the extent and nature of employers' recruitment problems, skills gaps and training activity. Like NESS05, NESS07 also involved detailed follow-up work, assessing employer expenditure on training and development.

1.1 Semta Footprint Covered in NESS

Semta NESS 2005 (SIC codes covered)

SEMTA **Web** www.semta.org.uk	Science, engineering and manufacturing technologies	27.4, 27.5, 28.1–28.3, 28.5–28.7, 29–35 *(NB 31.1, 31.62, 33.3 overlap with SummitSkills)*

Semta NESS 2007 (SIC codes covered)

Semta **Web** www.semta.org.uk	Science, engineering and manufacturing technologies	25.11, 25.12, 27-35, 51.52, 51.57, 73.10

1.2 Response Rates for NESS 07 for Semta

NESS covers just under 80,000 employers in England, about 3,300 of which are in Semta's footprint.

SEMTA	Actual (Unweighted)	Weighted
Establishments	3,335	48,880
Employment	159,511	1,179,842m

2. Skill Shortage Definitions

2.1 **Hard-to-Fill Vacancies (HtFVs)** are those vacancies described by employers as being hard to fill. Reasons often include skills-related issues, but can simply involve such aspects as poor pay or conditions of employment, or the employer being based in a remote location.

2.2 **Skill-shortage vacancies (SSVs)** are those HtFVs that result either from a low number of applicants with the required skills, or a lack of candidates with the required work experience, or a lack of candidates with the required qualifications.

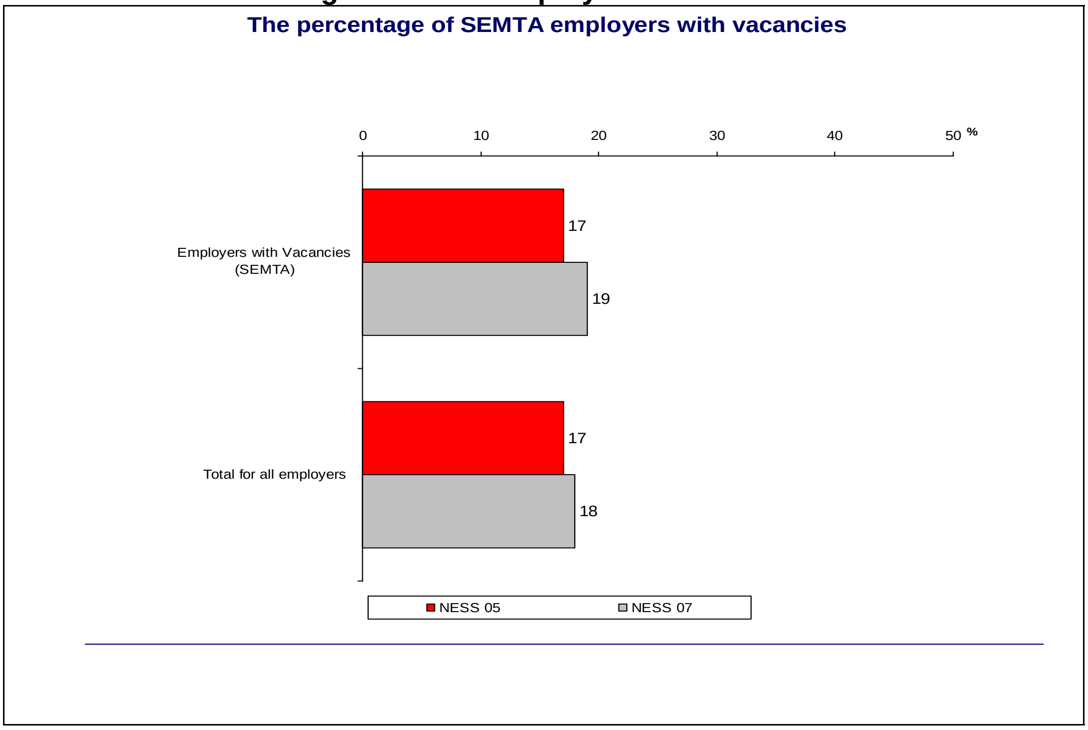
2.3 **Skills gaps** exist where employees are not fully proficient at their job.

Vacancies and Skill Shortages

3. Employers with Vacancies

The percentage of Semta employers with vacancies is 19% compared to 17% in 2005. In regards to the total for all employers this has seen an increase of one percentage point more vacancies since 2005.

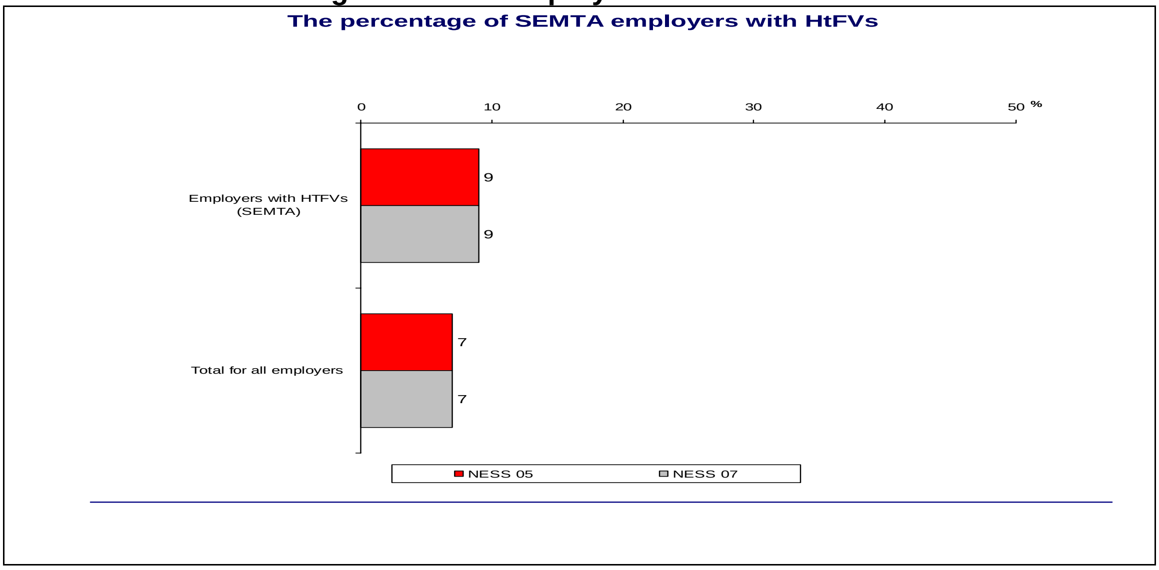
Chart 3.1: The Percentage of Semta employers with Vacancies



4. Employers with Hard-to-Fill Vacancies (HtFVs)

The percentage of Semta employers with HTFVs is 9% (compared to 7% for all employers). This is the same as in 2005.

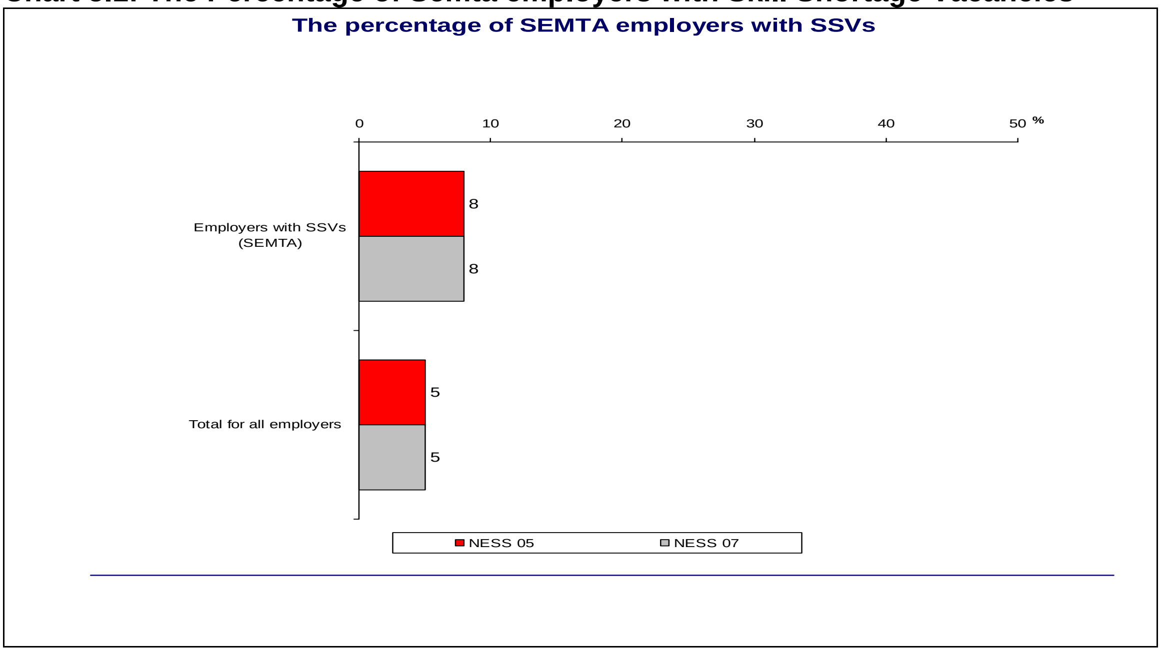
Chart 4.1: The Percentage of Semta employers with Hard-to Fill Vacancies



5. Employers with Skill-shortage vacancies (SSVs)

The percentage of Semta employers with SSVs is 8% (compared to 5% for all employers) this has remained the same since 2005.

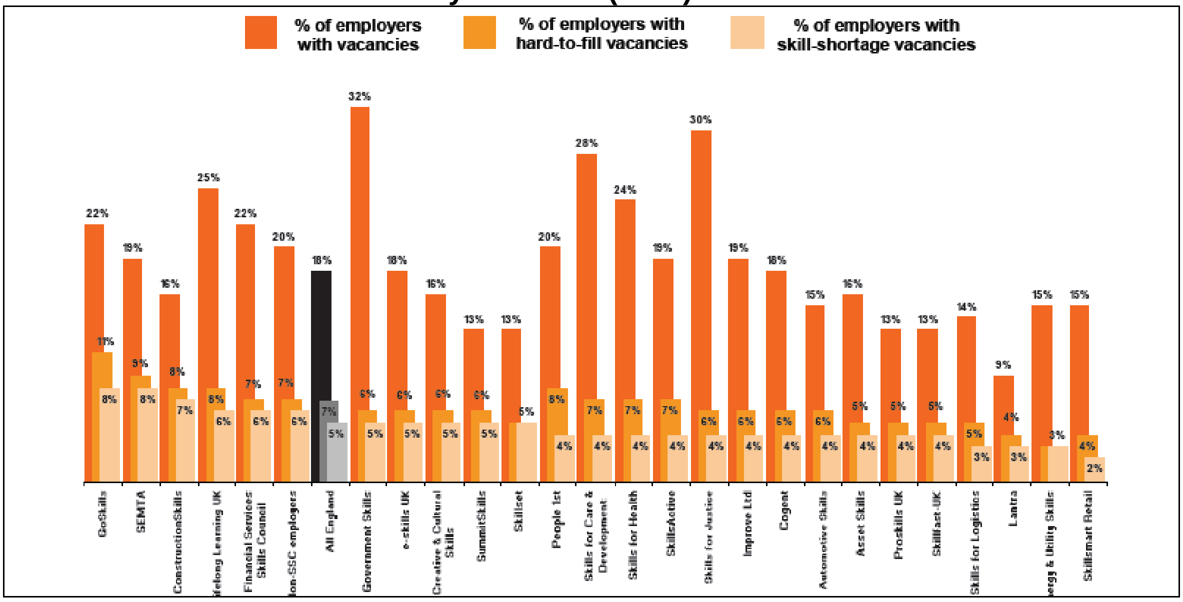
Chart 5.1: The Percentage of Semta employers with Skill Shortage Vacancies



6. The Sectoral Picture of Recruitment Difficulties

Only Go-Skills (17%) has a higher incidence of HtFVs than Semta (9%). This was also the case in 2005. The other SSC sectors with the highest incidence of HtFVs are ConstructionSkills, Lifelong Learning UK and People 1st (all 8%).

Chart 6.1: The Sectoral issues by each SSC(2007)



Base: All employers (weighted=1,451,507; unweighted=79,018).

However, in Go-Skills a much smaller proportion of these HtFVs are SSVs than in the other SSC sectors, so there are other factors leading to the large proportion of establishments with HtFVs in this sector.

The incidence of vacancies and recruitment difficulties is heavily influenced by size, with larger employers much more likely to report having any vacancies and HtFVs. Therefore, it is necessary to look at vacancies and HtFV *density* measures.

As seen in 2005, employers covered by Semta have a lower than average density of vacancies to employment (2.0% compared with the national average of 2.8%) but have comparatively high HtFV densities, with employers reporting above-average HtFV proportions as a percentage of all vacancies. In other words, while they have relatively low numbers of vacancies as a proportion of employee numbers, the vacancies that do exist are more likely than average to be hard-to-fill.

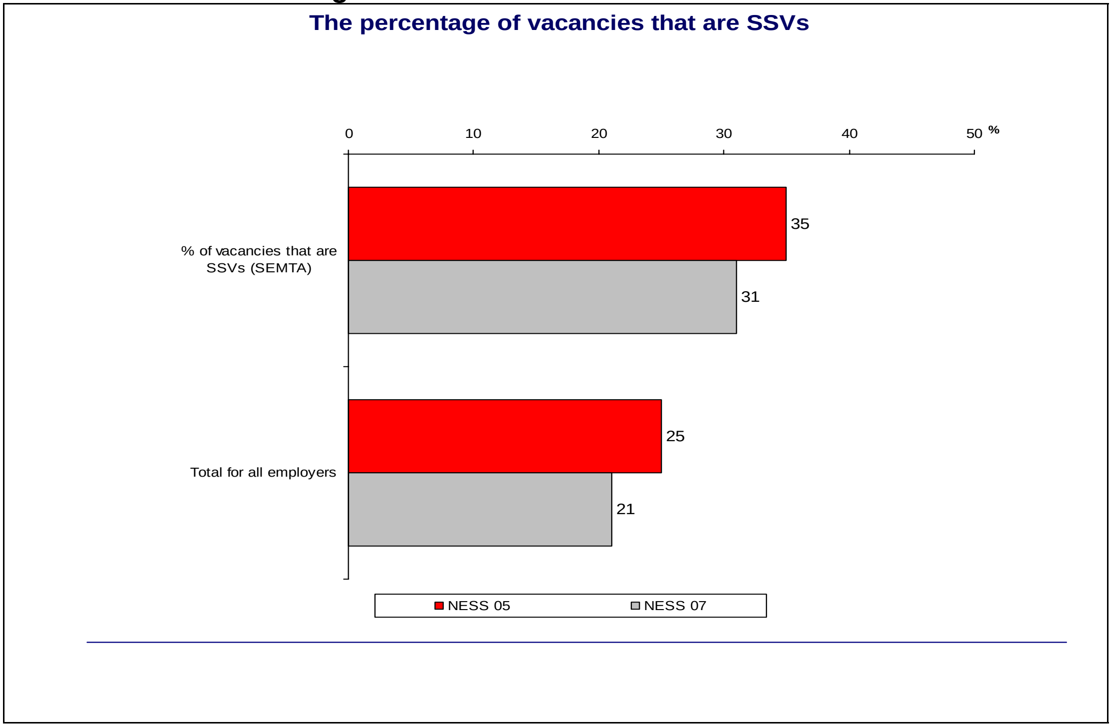
Table 6.1: Density of vacancies to employment including HtFVs

	SEMTA 2005	SEMTA 2007	% (+/-) Difference	All employers 2005	All employers 2007	% (+/-) Difference
Vacancies as % of employment	1.6%	2.0%	0.4%	2.7%	2.8%	0.1%
HtFVs as % of employment	0.7%	0.7%	-	0.9%	0.8%	-0.1%
HtFVs as % of vacancies	42%	38%	- 4%	35%	30%	-5%

7. Density of Skill-shortage Vacancies (SSVs)

The density of SSVs as a proportion of all vacancies shows that, although the density of SSVs has fallen since 2005, the problems still remain for Semta: 31% of vacancies are SSVs, compared with 21% for all employers. Only two SSCs have a higher density of SSVs. Therefore, it is in industries such as engineering that the need to recruit is most likely to result in problems finding suitably skilled candidates.

Chart 7.1: The Percentage of vacancies that are SSVs



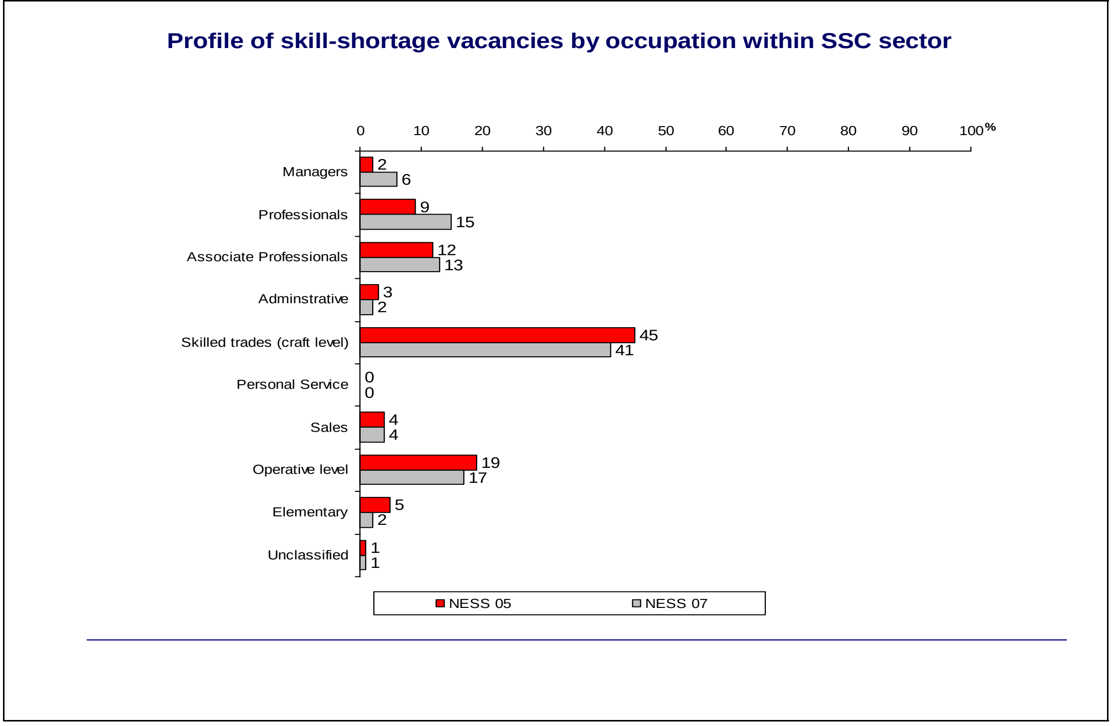
Density and volume of SSVs combine as a problem amongst employers represented by Semta second only to ConstructionSkills. This was also the case in 2005.

These two sectors could be said to be suffering the greatest skill challenges in recruitment, in that both the likelihood of any recruitment events encountering skills shortages and the absolute number of current SSVs is high.

8. Recruitment Issues

These results confirm the overall impact of difficulties recruiting for the skilled trades on the pattern of skill shortages as a whole. Of the industries experiencing both large numbers and high densities of SSVs, both Semta and ConstructionSkills are more likely than the average to be looking to recruit individuals for skilled trades positions.

Chart 8.1 Skill-shortage vacancies by occupation (Semta)



There also appears to be increasing difficulties in recruiting higher level staff such as technicians of professional engineers. Skills shortages appear to have increased in these occupations from 2005 to 2007.

Several SSCs felt the impact of HtFVs more than others, Semta is among these. The impact of these recruitment problems varied across sectors with Semta employers experiencing higher levels of:

(1) Increased workload for other staff (74%)

(2) Delays developing new products or services (44%)

(3) Increased operating costs (42%)

(4) Loss of business or orders to competitors (40%)

(5) Need to outsource work (33%)

(6) Difficulties meeting quality standards (26%)

(7) Difficulties introducing new working practices (26%)

9. Actions taken to overcome HtFVs

Employers across all SSC sectors tended to use similar strategies to overcome recruitment problems. The two most common responses across all the sectors were for employers to use increased advertising or recruitment spend and/or new recruitment methods or channels. These were the main actions taken by Semta employers: 37% and 29% of the employers with HtFVs took these actions (compared with 44% and 24% overall). Semta employers also used 'Increasing the training given to the existing workforce in order to fill vacancies' (12% compared with an average overall of 10%).

Skills Gaps

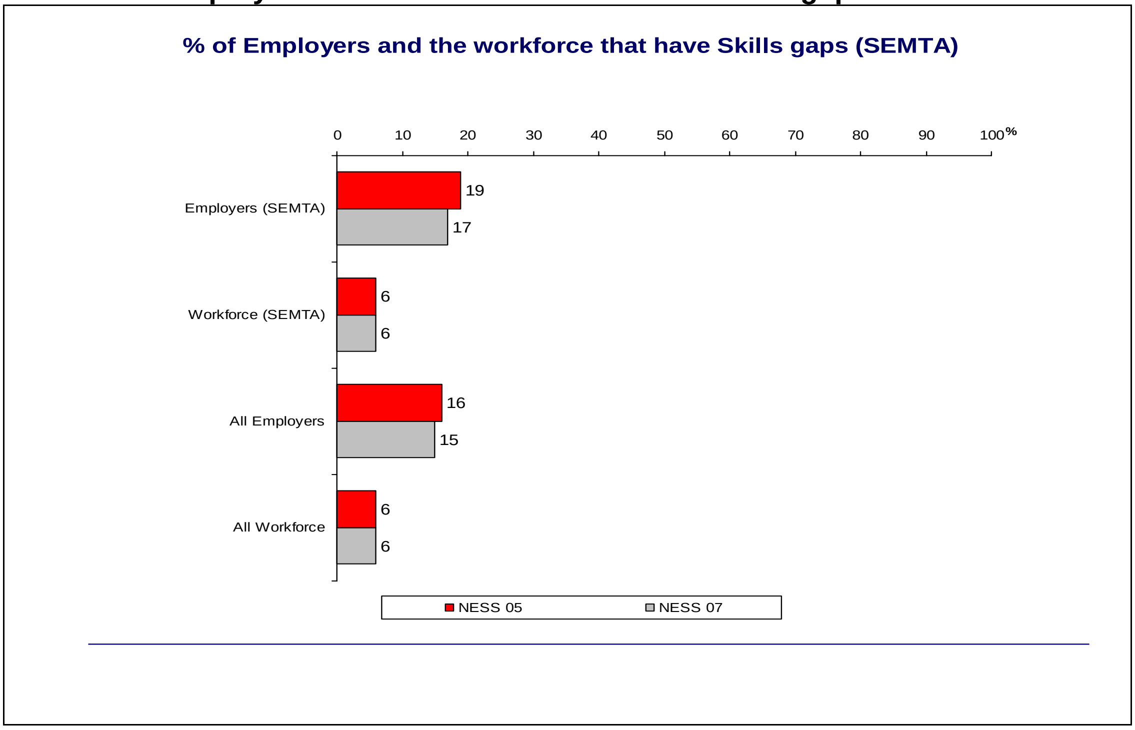
10. Skills Gaps

Skills gaps affect a minority of all employers (15%) and a smaller minority of the workforce (6%).

In comparison for Semta employers, 17% have skills gaps, a slight decrease from 2005 (19%), 6% of the workforce have skills gaps, the same figure as for all employers.

Reflecting the occupational profile of the Semta employers, 26% of the skills gaps are among operatives and 19% among skilled trades.

Chart 10.1: Employers and the workforce that have skills gaps



11. Main skills gaps

The main skills gaps among Semta employers were in technical and practical skills (65% of employers that experienced skills gaps had gaps in technical and practical skills compared with 51% overall).

Table 11.1: Nature of Skill Gaps

Skill Area	Semta (%)	All Employers (%)
Technical and Practical	65	51
Customer-Handling	15	41
Oral Communication	24	41
Team-working	37	40
Problem Solving	36	35
Written Communication	22	27
Management	22	26
General IT User Skills	18	22
Literacy	17	19
Office Admin	14	18
Numeracy	15	15
IT Professional Skills	14	12
Foreign Languages	15	9

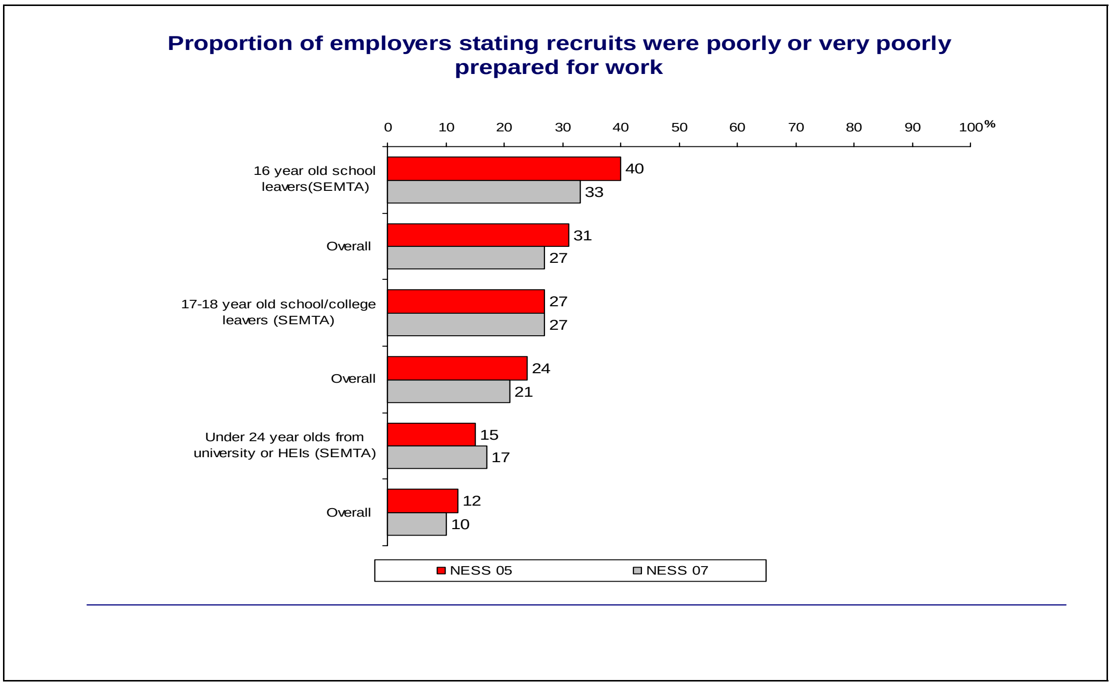
The two most likely skills to be described as lacking in the Semta sector are technical and practical skills (65%) and team working skills (37%). The skill areas particularly likely to be in short supply when compared to the all sector average are technical and practical skills.

Recruitment of young people

12. Recruitment of 16-24 year olds direct to employment

Overall employers who source recruits straight from education tend to be happy with the quality of people that they take on, particularly in the case of graduates. However, 33% of Semta employers recruiting 16 year old school leavers, 27% of those recruiting 17-18 year old school or college leavers and 17% of those recruiting graduates find them to be poorly prepared. The perception is that the education system is preparing learners much less well for a career in Engineering and Science careers than for other sectors.

Chart 12.1: Employers stating recruits were poorly or very poorly prepared for work

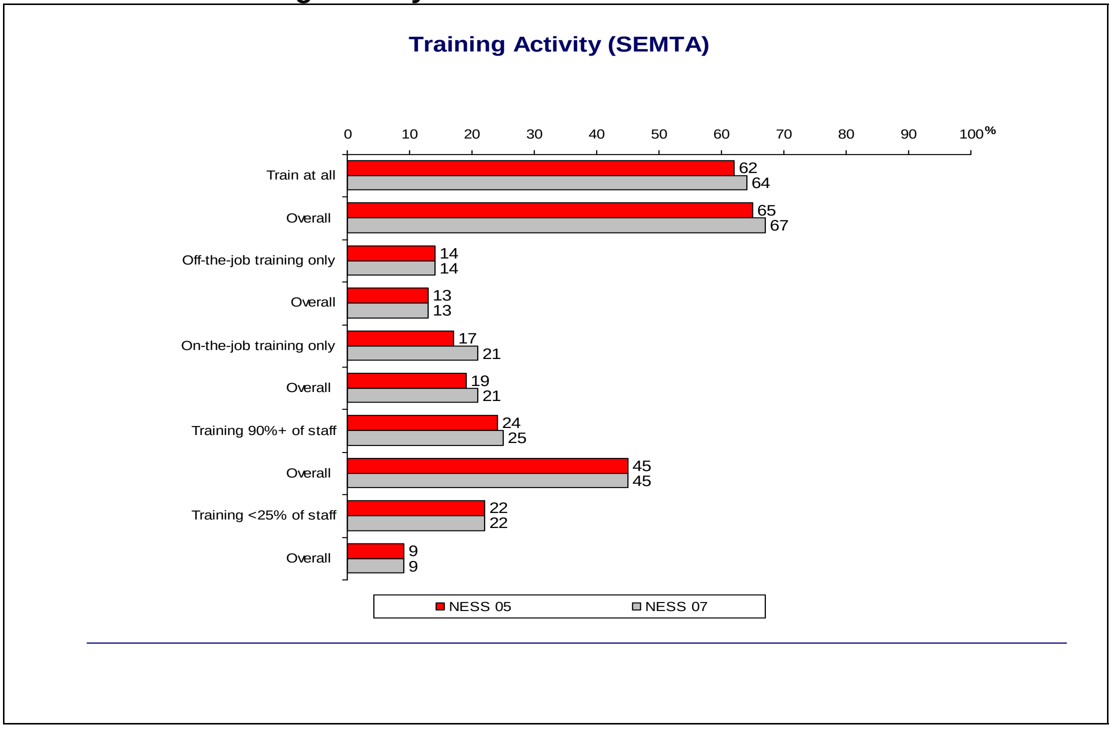


Training Activity and Expenditure

13. Training Activity

Just under a quarter (22%) of Semta employers train under 25% of their staff; this is much higher than for all employers (9%). This is in contrast to 64% of Semta employers that offer training at all; this is 3 percentage points below all employers.

Chart 13.1: % Training Activity



14. Training Expenditure

The Cost of Training survey estimates overall employer expenditure on training (including labour costs) in the 12 months prior to NESS07 to be £38.6bn. This represents an increase of £5.3bn (16%) from the NESS05 figure.

This increase is predominantly a result of an increase in spending on-the-job training, up 23% from the 2005 figure. The increase in spending for off-the-job training was a comparatively modest 9%. In 2007 employers spent £20.3bn on on-the-job training as against only £18.4bn on off-the-job training, whereas in 2005 there was an almost even split between the two.

The overall amount spent on training in each SSC sector closely reflected the size of employment in the sector. Semta accounts for 5% of the total expenditure and has 5% of the employment.

On-the-job training costs represented the majority of training expenditure by employers covered by Semta £1,030m. However, the spend on- the- job training has reduced since 2005. A possible explanation for this is a move towards higher level skills, not delivered so much by on-the-job training.

Table 14.1: Total training expenditure: on and off-the-job training

	Total	Off-the-job	On-the-job	% of training costs on off-the-job training
SEMTA 2005	£1,790m	£559m	£1,231m	31%
SEMTA 2007	£1,853m	£823m	£1,030m	44%
Overall 2005	£33,331m	£16,807m	£16,524m	50%
Overall 2007	£38,648m	£18,358m	£20,290m	47%

Table 14.2: Training spend per employee

	SEMTA 2005	**Overall**
Training spend per employee	£1,475	£1,550

	SEMTA 2007	**Overall**
Training spend per employee	£1,575	£1,725

Table 14.3: Average training expenditure per trainee

	Average cost per establishment	Average cost per trainee	Average off-the-job cost per off-the-job trainee	Average on the job cost per on-the-job trainee
SEMTA 2005	£62,775	£3,075	£1,575	£2,850
SEMTA 2007	£59,400	£3,250	£2,700	£2,275
Overall 2005	£37,175	£2,550	£2,175	£1,525
Overall 2007	£39,700	£2,775	£2,300	£1,750

Base: All trainers completing the Cost of Training survey (**2005**: un-weighted=7,059; weighted=896,639)
(**2007**: un-weighted=7,190; weighted=974,091)

15. Conclusions

- The percentage of Semta employers with vacancies has seen an increase since 2005.

- On-the-job training costs represented the majority of training expenditure by employers covered by Semta £1,030m.

- The spend on- the -job training has reduced since 2005.

- The two most likely skills to be described as lacking in the Semta sector are technical and practical skills (65%) and team working skills (37%).

- There also appears to be difficulties in recruiting higher level staff such as technicians and professional engineers.

- Semta employers have a lower than average density of vacancies to employment.

- The density of SSVs (as a proportion of all vacancies) shows that the problems still remain.

Appendix A: Responses by Size of Establishment: NESS 2007 (Weighted)

Size Bands (SEMTA: NESS 2007)					
	Size Bands				
	<10	10-49	50-249	250+	Total
Frequency	29,911	14,793	3,653	524	48,880
Percent	61%	30%	7%	1%	

		Size Bands			
		<10	10-49	50-249	250+
Whether have any vacancies	Yes	13%	23%	49%	70%
Whether have any hard to fill vacancies	Yes	57%	51%	40%	49%
Whether have any skills shortage vacancies (prompted or unprompted)	Yes	79%	85%	87%	93%

Appendix B: Bases for Charts

Chart 3.1,4.1,5.1		**Weighted**	**Unweighted**
All employers	**2005**	1,390,155	74,835
	2007	1,451,507	79,018
Semta	**2005**	57,019	3,601
	2007	48,880	3,335

Chart 7.1 (Vacancies)			
All employers	**2005**	573,900	50,757
	2007	619,675	52,867
Semta	**2005**	19,300	2,100
	2007	23,200	3,000

Chart 7.1 (SSVs)		**Weighted**	**Unweighted**
All employers	**2005**	143,125	11,326
	2007	130,000	10,399
Semta	**2005**	6,675	600
	2007	7,150	750

Chart 8.1		**Weighted**	**Unweighted**
All employers	**2005**	143,124	11,326
	2007	130,004	10,399
Semta	**2005**	6,669	572
	2007	7,161	755

Chart 10.1		**Weighted**
All employers	**2005**	1,265,000
	2007	1,361,100
Semta	**2005**	69,600
	2007	75,000

Chart 12.1 (16 Year Old School leavers)		**Weighted**	**Unweighted**
All employers	**2005**	101,785	7,339
	2007	104,500	7,641
Semta	**2005**	3,718	327
	2007	3,743	352

Chart 12.1 (17-or 18 year-old-school-or college leavers)		**Weighted**	**Unweighted**
All employers	**2005**	154,500	11,557
	2007	180,404	13,109
Semta	**2005**	5,148	464
	2007	5,260	508

Chart 12.1 (Under 24-year-olds from univeristy or HE institution)		**Weighted**	**Unweighted**
All employers	**2005**	131,352	9,865
	2007	152,357	11,255
Semta	**2005**	2,814	273
	2007	3,412	352

Chart 13.1		**Weighted**	**Unweighted**
All employers	**2005**	1,390,155	74,835
	2007	1,451,507	79,018
Semta	**2005**	46,540	2,971
	2007	48,880	3,335