This paper sets out a summary of the findings of the review of delivery models, activity levels and activity costs for the Engineering frameworks.

Background

The review of activity costs is based on a standard methodology and modelling tools that are being applied consistently across all sectors in scope.

The approach is based on:

- Access to LSC data to inform the review
- Dialogue with the sector body on apprenticeship issues
- Interviews with effective providers (i.e. those providers with good or above average inspection grades and apprenticeship success rates) to establish activity levels
- An expert panel meeting to review data and evidence on activity levels
- Modelling of activity costs against provider data and panel advice
- Consultation with the sector on the panel advice and issues emerging
- Moderation of panel advice by an LSC project group

A Phased Approach to Reviews

Apprenticeship frameworks have been reviewed in four phases over the period from September 2005 to December 2006. Frameworks reviews in phase 1 were completed in January 2006 leading to funding rate changes in August 2006.

The activity costs models and assumptions were maintained over the four phases but the methodology was enhanced in phase 2 to include improved information for expert panels and more detailed feedback to providers on issues and expert panel advice.

The Engineering frameworks were reviewed in phase 1. This report includes some summary data and information and activity costs presentation material that was developed as part of phase 2.
Funding Rates for NVQs and Apprenticeships

LSC Data

LSC data from 2004/05 ILR data used to inform the review were:

Numbers in Learning

<table>
<thead>
<tr>
<th></th>
<th>16 - 19</th>
<th>19+</th>
<th>Total</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship</td>
<td>75%</td>
<td>25%</td>
<td>340</td>
<td></td>
<td>9,832</td>
</tr>
<tr>
<td>Advanced</td>
<td>68%</td>
<td>32%</td>
<td>227</td>
<td></td>
<td>15,770</td>
</tr>
</tbody>
</table>

Source: ILR 2004/2005
*Average taken from quarterly reports (January/April/July/October 2005)

Success Rates

<table>
<thead>
<tr>
<th></th>
<th>Framework</th>
<th>NVQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship</td>
<td>48%</td>
<td>10%</td>
</tr>
<tr>
<td>Advanced</td>
<td>52%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: ILR 2004/2005 Period 12

Average Length of Stay in Months

<table>
<thead>
<tr>
<th></th>
<th>Non completion</th>
<th>Framework</th>
<th>NVQ Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship</td>
<td>10.9</td>
<td>18.1</td>
<td>20.0</td>
</tr>
<tr>
<td>Advanced</td>
<td>23.7</td>
<td>40.5</td>
<td>43.6</td>
</tr>
</tbody>
</table>

Source: ILR 2004/2005 Period 12 and LSC Data

Provider Interviews

A sample of effective providers was identified in discussion with SEMTA.

These providers were interviewed in January 2006 through a series of visits to provider locations.

A completed survey form was shared with each provider to review and update. A summary of the provider comments on delivery models and activity levels was shared with the providers in the interview sample for comment and feedback.
Expert Panel

SEMTA convened an expert panel with representatives from:

- SEMTA
- Adult Learning Inspectorate
- A provider nominated by the Association of Learning Providers
- An FE College
- An employer provider
- The consultant to the project

There was no awarding body representation at the meeting. The contact from the Learning and Skills Development Agency was not able to attend the meeting.

Expert Panel Meeting and Advice

The panel met on 3 February 2006 and reviewed the data and evidence from the LSC and provider surveys. The panel used this evidence to formulate advice on activity levels for effective delivery.

LSC Data on Apprenticeship Numbers

The panel reviewed the LSC data on time to complete and noted that there were slightly more learners reported as completing on the advanced framework compared to the apprenticeship route. The panel agreed that this reflected the needs of the engineering sector and that this trend was likely to be consistent with the sectors needs.

The panel agreed that it would be helpful to see more detailed data on the number of learners who:

- Enter at the directly at the advanced level
- Progress to an advanced level framework having completed an apprenticeship

Employer Costs of Learning

The panel reported high costs and input by employers to support apprenticeship programmes. ATG surveys have shown that employer investment in an Advanced Apprenticeship in engineering is between £60,000 and £80,000 over the 48 months of the programme.
Funding Rates for NVQs and Apprenticeships

Flexible Models of Delivery and Apprenticeship Programmes

The panel noted that there is a wide range of technical certificates available with corresponding LSC current funding rates. The LSC Learning Aim database lists over 30 technical certificates at level 2 and similar number at level 3.

**Apprenticeship Pathways**

The panel reviewed a range of pathways set out in a summary table as:

<table>
<thead>
<tr>
<th>Path</th>
<th>Level</th>
<th>Description</th>
<th>NVQ</th>
<th>TC</th>
<th>KS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>Programme led route – trainee status or employed status</td>
<td>PEO NVQ 2 (6 + 2)</td>
<td>TC</td>
<td>KS</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>Employed Status Engineering NVQ 2 in a wide range of skills e.g. Engineering Maintenance</td>
<td>3 PEO Units</td>
<td>NVQ 2</td>
<td>TC</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>Entry to level 3 on completion of pathway A</td>
<td>NVQ 3</td>
<td>TC</td>
<td>KS</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>Entry to level 3 on completion of pathway B</td>
<td>5 PEO Units</td>
<td>NVQ 3</td>
<td>TC</td>
</tr>
<tr>
<td>E</td>
<td>3</td>
<td>Direct entry to level 3 without any level 2 pre programme</td>
<td>8 PEO Units</td>
<td>NVQ 3</td>
<td>TC</td>
</tr>
</tbody>
</table>

The panel discussed the range of pathways available and noted the LSC data indicated that most learners on the apprenticeship programme were completing the NVQ Performing Engineering Operations (PEO).

The Adult Learning Inspectorate (ALI) re-iterated their concerns around the level of employer engagement in the PEO route where this was offered as a stand-alone pathway rather than as a progression to a work based advanced apprenticeship.
Funding Rates for NVQs and Apprenticeships

The panel agreed to provide advice on the PEO apprenticeship that may be offered as a programme led pathway or to employed learners where the requirement was for a substantial programme of underpinning knowledge and skills development prior to entry to the work place.

The NVQ PEO route is based on a significant programme of underpinning knowledge and skills development completed in a block of learning and leading to:

- Progression to the work place and to an advanced apprenticeship
- Support in securing employment with the aim of progression on to an advanced apprenticeship programme

The panel noted that NVQ assessment could take place in a workshop setting and that there would ideally be some work based experience and support on the transition to the work place with some work based assessment towards the end of the programme.

Work Based NVQ Engineering Apprenticeship

The panel noted that a work based NVQ route would involve a significantly different pattern of activities and that this may be based on a day release programme of group based learning along with a higher level of 1:1 assessment and support in the work place.

The panel did not have access to any data and evidence on this model of delivery and were not able to advise on specific activity levels. The panel noted that the issue was discussed in the expert panel meeting of 2004 where the view was taken that similar levels of resource were required to support both the PEO pathway and the work-based pathway.

Advanced Apprenticeship

The panel noted that learners may progress from the PEO apprenticeship to an advanced apprenticeship through pathway C and agreed to establish the activity levels for this pathway.

The panel agreed that a significant number of learners might start directly on to an advanced programme and follow pathway E. The panel took the view that pathway E would consist of a combined pathway A and pathway C in terms of activities.

Panel advice on the advanced apprenticeship is based on direct entry to a 48 month programme with a level 2 PEO phase and a level 3 work based phase.
Expert Panel Advice for Apprenticeship Delivery – PEO Pathway

The expert panel set out their advice as a basis for establishing the costs of a model of effective delivery. *This is not intended to be a ‘recipe’ that providers should follow.*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Panel Advice 2006</th>
<th>Notes and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned Time to Complete</td>
<td>15 months</td>
<td>Estimated time for effective delivery based on provider interviews and LSC data</td>
</tr>
<tr>
<td>Group based knowledge and skills</td>
<td>1000 hours</td>
<td>Based on a block release programme of 30 weeks of 35 hours per week with some of the time allocated to group based key skills</td>
</tr>
<tr>
<td>Work based knowledge and skills</td>
<td></td>
<td>Assessment embedded in the programme of group based learning that may be carried out by the tutor responsible for the group of learners. Some learners may be assessed in their work-based context for elements of the PEO.</td>
</tr>
<tr>
<td>NVQ assessment and support</td>
<td>5.0 days</td>
<td>Lead internal verifier time per learner for assessor review, portfolio sampling and moderation meetings and activities</td>
</tr>
<tr>
<td>Group based key skills</td>
<td>90 hours</td>
<td>Group based sessions as part of the block release programme</td>
</tr>
<tr>
<td>Work based key skills</td>
<td>0 days</td>
<td></td>
</tr>
<tr>
<td>Regular review</td>
<td>1.0 days</td>
<td>Delivered as part of the programme of workshop activity with at least 5 regular reviews of ¼ day per session.</td>
</tr>
<tr>
<td>Learner support</td>
<td>1.0 days</td>
<td></td>
</tr>
<tr>
<td>Entry activities 1:1</td>
<td>1.5 days</td>
<td>An entry programme: an interview (1/2 day), assessment (1/2 day) and a work based induction (1/2 day) all 1:1 time with an assessor</td>
</tr>
<tr>
<td>Group based induction</td>
<td>22.5 hours</td>
<td>A three day induction programme as part of an effective model of delivery</td>
</tr>
<tr>
<td>Registration Certification</td>
<td>£ 212</td>
<td>Based on costs of NVQ, Technical Certificate, Key Skills and sector body certificate</td>
</tr>
</tbody>
</table>

**Note:** The model is based on group-based activities delivered by the tutor with separate staff involved in assessment, regular review and learner support.
Activity Costs for Apprenticeship Delivery

The activity costs model has been set up to compare the LSC funding in 2005/06 to the reported activity levels with the following costs assumptions:

- Group based workshop activity weighted at factor $C^1$
- Assessor employment costs weighted at factor $D^2$ based on independent research on salary rates and employments costs
- Registration and Certification costs of £212 based on information collected from awarding bodies

The model includes a factor for success rates and this is based on the reported 2004/05 success rates of 48% uplifted to a minimum level of 58% to reflect improvement in success rates by 2007/08.

The activity costs emerging from the review were:

![Current Funding and Activity Costs]

This suggests that activity costs for *effective delivery* are significantly above the current rates based on the PEO 35 week block release workshop route and separate staff responsible for assessment, regular review and learner support.

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$^1$ This is based on the LSC programme weighting factors for guided learning hours

$^2$ A separate report on employment costs provides more details of the bands and methodology used to map sectors to employment bands
Funding Rates for NVQs and Apprenticeships

Expert Panel Advice for Advanced Apprenticeship Delivery – Direct Entry – Pathway E

The expert panel set out their advice as a basis for establishing the costs of a model of effective delivery. *This is not intended to be a ‘recipe’ that providers should follow.*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Panel Advice 2006</th>
<th>Notes and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned Time to Complete</td>
<td>48 months</td>
<td>Estimated time for effective delivery based on provider interviews and LSC data for direct entry to an advanced programme</td>
</tr>
<tr>
<td>Group based knowledge and skills</td>
<td>1270 hours</td>
<td>Workshop based block release at level 2 followed by a day release programme at level 3</td>
</tr>
<tr>
<td>Work based knowledge and skills</td>
<td>2.0 days</td>
<td>A programme of workshop assessment at level 2 followed by regular visits to the work place at level 3 with visit time allocated to knowledge and skills development and work based observation and assessment</td>
</tr>
<tr>
<td>NVQ assessment and support</td>
<td>11.0 days</td>
<td>Lead internal verifier time per learner for joint assessor visits, portfolio sampling and moderation meetings and activities</td>
</tr>
<tr>
<td>NVQ quality assurance</td>
<td>4.0 days</td>
<td></td>
</tr>
<tr>
<td>Group based key skills</td>
<td>90 hours</td>
<td>Completed as part of the level 2 workshop based phase</td>
</tr>
<tr>
<td>Work based key skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular review</td>
<td>4.0 days</td>
<td>Delivered as part of the programme of workshop based and then work based visits by assessors with at least 16 regular reviews of ¼ day per session.</td>
</tr>
<tr>
<td>Learner support</td>
<td>3.0 days</td>
<td></td>
</tr>
<tr>
<td>Entry activities 1:1</td>
<td>2.0 days</td>
<td>An enhanced entry programme: an interview (1/2 day), assessment (1 day) and a work based induction (1/2 day) all 1:1 time with an assessor</td>
</tr>
<tr>
<td>Group based induction</td>
<td>30 hours</td>
<td>A five day induction programme as part of an effective model of delivery</td>
</tr>
<tr>
<td>Registration Certification</td>
<td>£ 246</td>
<td>Based on costs of NVQ, Key Skills and sector body certificate</td>
</tr>
</tbody>
</table>

**Note:** The allocated time for work based assessor activity during the level 3 phase is equivalent to a full-time assessor caseload of 1:30 with separate staff responsible for entry activities.
Activity Costs for Advanced Apprenticeship Delivery

The activity costs model has been set up to compare the LSC funding in 2005/06 to the reported activity levels with the following costs assumptions:

- Group based workshop activity weighted at factor C\(^3\)\(^f\)
- Assessor employment costs weighted at factor D\(^4\) based on independent research on salary rates and employments costs
- Registration and Certification costs of £ 246 based on information collected from awarding bodies

The model includes a factor for success rates and this is based on the reported 2004/05 success rates of 52% uplifted to a minimum level of 62% to reflect improvement in success rates by 2007/08

The activity costs emerging from the review were:

![Current Funding and Activity Costs](image)

This suggests that activity costs for *effective delivery* above the current rates based on direct entry to an advanced programme with a planned time to complete of around 48 months.

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\(^3\) This is based on the LSC programme weighting factors for guided learning hours

\(^4\) A separate report on employment costs provides more details of the bands and methodology used to map sectors to employment bands
Funding Rates for NVQs and Apprenticeships

Moderation and LSC Data Modelling

The LSC has established a moderation group with representation from the Association of Learning Providers to review panel advice and activity costs.

The advice from the SEMTA expert panel was reviewed at the moderation meeting in February 2006. The moderation group debated at length the issues around the range of pathways and delivery arrangements.

Apprenticeship

The moderation group took the view that the activity levels had been overstated in some areas and adjusted these to:

- A reduction in the total group based hours from an estimated 1021 hours to 910 hours with the remaining 90 hours apportioned to key skills group activity and an initial group based induction session

- A reduction in NVQ assessment and support from 3.0 days to 1.0 days, based on assessment being completed by group based tutors

- A reduction of 1.0 days in the level of regular review/learner support, based on this activity being completed by group based tutors

- A reduction of 0.5 days in the entry activity, based on emerging norms for the apprenticeship sector

This activity costs emerging from the revised models were:

![Current Funding and Activity Costs](image)

This suggests activity costs above the current funding rates.
Advanced Apprenticeship

The moderation group carried forward their adjustments from the apprenticeship phase and made a further minor adjustment to the advanced phase as:

- A reduction of 1.0 days in the level of regular review/learner as part of the work based visits by assessors

This leads to a slight increase in the work based assessor activity during the level 3 phase to a full-time assessor caseload of 1:32.

The activity costs emerging from the revised models were:

[Graph showing current funding and activity costs for different providers]

This suggests activity costs slightly above the current funding rates.
Funding Rates for NVQs and Apprenticeships

Funding Rate Changes

The LSC is implementing changes to the funding rates based on the review and the advice on activity levels and activity costs and the decisions of the moderation group.

The changes are:

Apprenticeship

- An increase of 16% to the NVQ 2 rate phased in over 2 years

Direct Entry to an Advanced Apprenticeship

- An increase of 3% to the NVQ 3 rate phased in over 2 years

Progression to an Advanced Apprenticeship following completion of an apprenticeship

- A reduction by 80% of the funding of the NVQ 2 applied to the NVQ 3 rate when a learner progresses following completion of an apprenticeship

Further details are available in the LSC publication Requirements for Funding Work-based Learning for Young People 2006/07
Funding Rates for NVQs and Apprenticeships

ANNEX A

Funding Profile

There is a DfES policy that employers should make a contribution to the costs of delivery for learners over the age of 19. This is implemented through the LSC funding rates by a reduction in the 19+ rate based on an assumed contribution.

The funding profile on the activity costs graphs sets out the sector based proportions of LSC funding and assumed employer contribution using:

- LSC data on age at entry
- LSC funding rates for 16-18 and 19+ learners

This is included for information and does not impact on the activity costs although it will impact on how providers recover the funding for the activities they deliver.

Caseloads, Visits and Days of 1:1 time

The activity costs model uses days of 1:1 time to include the costs of assessor time in the work place. A daily rate is calculated by taking the annual employment costs and dividing this by an assumed 200 days of work place visit time for a full-time assessor.

Where an assessor has a caseload of 1:25 learners an assessor will allocate an average of 200/25 = 8 days of 1:1 time in the work place per year for each learner. For a programme planned to take 15 months this would mean 10 days of 1:1 time over the duration of the programme.

This time may be apportioned across:

- Knowledge and skills development
- Observation and assessment
- Regular review
- Learner support and advice

The activity costs model includes days for each of these activities and the costs of these days are included at the daily rate.

These days of support may be delivered through a programme of regular visits seeing 2 to 3 learners per day - on average. So over a 15 month programme 10 days could be delivered as:

- 20 visits (every 3 weeks) seeing an average of 2 learners per day
- 30 visits (every 2 weeks) seeing an average of 3 learners per day