

SVQ Research Report

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SVQ Research Project

An investigation into the impact of cost, available funding, and the relationship with other vocational qualifications, on the take-up and completion rates of Scottish Vocational Qualifications

March 2007

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Introduction

In March 2006, the Scottish Qualification Authority's Accreditation Committee requested research into the impact on the Scottish Vocational Qualification (SVQ) awards of funding availability and the existence of competition. This request stemmed from work completed in 2005 that focused on sector skills bodies (SSBs) and their perceptions of factors that may, or may not, affect demand for SVQs. The research in 2005 highlighted that SSBs rated funding availability and the existence of market competition as leading factors that affect SVQ uptake.

This research paper tests these perceptions and attempts to ascertain their potential impact on the SVQ market. It assesses these factors within the context of the Scottish economy, taking into account government policies, Scottish demography, and economic development programmes.

Scotland is a well educated nation, comparing favourably with international contemporaries. It has a workforce with qualifications as well as experience. However, Scotland falls behind its competitors in terms of productivity and so, as a nation, Scotland remains less competitive and less efficient. It is a common misperception that the productivity issue may be resolved by improving the skill set of the labour force through training alone. Although this is likely to have some impact on a poorly skilled workforce, it will have little effect when applied to a skilled workforce, unless it is accompanied by improvements in:

- ◆ investment
- ◆ innovation
- ◆ competition
- ◆ enterprise

‘As the Leitch Review of skills in the UK recently highlighted, Scotland is the only nation or region of the United Kingdom where the percentage of people with a Higher Education qualification outnumbers the percentage with a basic school leaving qualification...Scotland has not, however, matched the UK economic growth rate despite its positive skills profile.’
(Scottish Government, 2007)

Most skills gaps in Scotland exist among older workers and, although there is a cohort of NEET (not in employment, education or training) young people, Scotland really needs to improve the skills of older workers while at the same time developing them as the innovative and less risk-averse managers of the future.

‘The labour market needs more enterprising people...they are...the people who create ideas and have the confidence, determination and skills to translate those into positive action, for economic or social benefit.’
(Scottish Government, 2007)

Developing management and leadership skills is an opportunity to be grasped as today's managers retire, and replacement demand pulls in existing workers to more senior roles. Improving Scottish productivity would dramatically improve Scotland's international standing.

'Productivity isn't everything but, in the long run, it is almost everything.'
(Paul Krugman)

This paper does not deal with productivity specifically, but its examinations of the funding process, and the impact of funding, raise questions that may affect productivity, including:

- ◆ Does the availability of funding stifle some (especially larger) companies' investment decisions?
- ◆ How does funding affect company attitudes?
- ◆ Does the availability of funding make companies less, or more, inclined to invest in their workforce?
- ◆ Does funding distort, rather than stimulate, demand for vocational qualifications?

The first section of this paper examines the impact and implication of funding on take-up and completion rates of SVQs. It pays particular attention to public funding mechanisms and their main strengths and weaknesses. The second section of the paper focuses on the impact on SVQs of alternative awards in the market and their take-up and market share.

1 The impact and implication of funding on take-up and completion rates of SVQs

Background

In 2003, the Scottish Executive published its lifelong learning strategy for Scotland¹ and, through this, highlighted the importance of continuous learning while emphasising its commitment to delivering high quality, accessible education to the post-16 population.

‘We want all Scotland’s people to have the opportunity to reach a minimum level of learning for work and life. To do this, we are setting a target of SCQF level 5 for working age adults and a target of SCQF level 6 for people aged 18 to 29’. (Scottish Executive, 2003)

This has been demonstrated through various schemes and increases in public funding. For instance in the three years to 2006, further education (FE) funding reached £0.5 billion (50% up on the previous period) and FE enrolments rose by 12%. Schemes such as the Scottish Union Learning Fund have helped to boost both interest and take-up of learning within the workplace. Coupled with funding from institutions such as the Executive itself and Scottish Enterprise (SE), they assisted the Executive’s drive to improve the standard of post-16 learning across Scotland.

In September 2007, this strategy was superseded by the Scottish Government’s² *Skills for Scotland, A Lifelong Skills Strategy*. The new strategy builds on the premise of the earlier document and develops the promotion of management skills and business direction:

‘Our vision is for a smarter Scotland with a globally competitive economy based on high value jobs, with progressive and innovative business leadership.’ (Scottish Government, 2007)

Scottish Vocational Qualifications (SVQs) are practical, work-based qualifications that enable people to demonstrate their understanding and develop their skills in particular occupational areas. SVQs are developed *by industry for industry*, and are endorsed and accredited by the Scottish Qualifications Authority — making them recognisable and transferable nationally (and in some cases, internationally).

SVQs come in various guises and can be delivered alone or as part of a framework including Modern Apprenticeships and Skillseekers programmes. SVQs are available at different levels from ‘core skills’ to advanced technical and professional skills. They are designed to be applicable at every stage of employment across a wide range of sectors.

¹ *Life through learning: learning through life* — the lifelong learning strategy for Scotland.

² The Scottish Executive changed its name to The Scottish Government in 2007.

As owner of the SVQ brand, SQA regulates these awards and, along with its responsibilities as accrediting body, monitors the take-up and certification rates of each SVQ award. In 2005, research revealed that there may be a relationship between the cost and availability of funding of an SVQ and its rate of take-up and completion. This project examines this possibility, taking into account awarding body and training provider fees as well as the availability of funding. In order to gauge a pattern, certification statistics from 2005/06 are examined and cross-referenced with funding allocations for the same period. This is carried out in detail for a sample of SVQ awards across different awarding bodies and sectors.

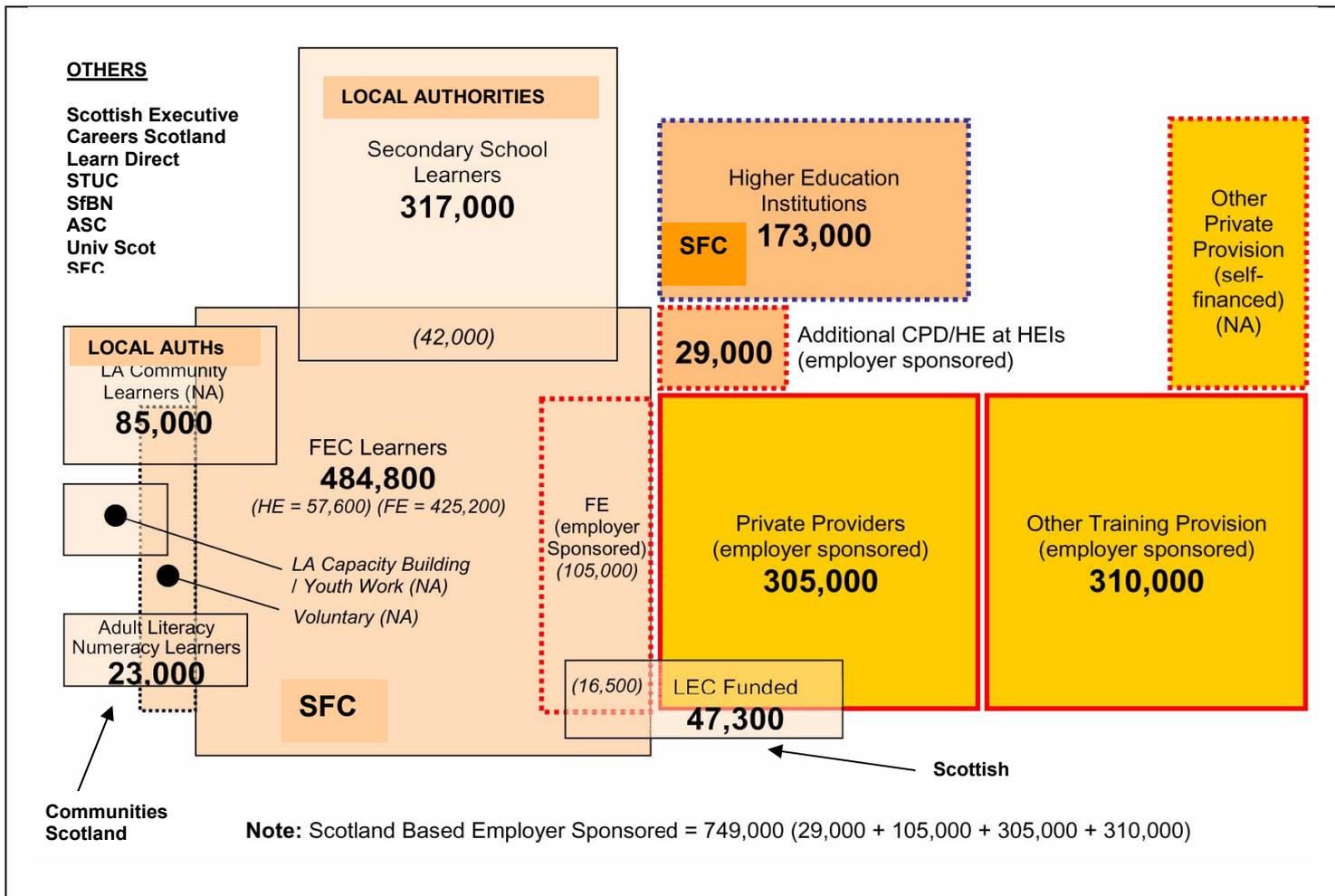


Figure 1: Estimated numbers of learners by provider and sponsor for Scotland (and relevant agencies)³

³ Source: PIEDA Consulting Supply and Demand of Further Education in Scotland (2005)

Notes:

- Boxes are proportionately sized in relation to enrolments
- Figures in brackets show proportions that have overlapping enrolments or further details
- Where no number appears in a box the data is not available
- Some LEC-funded activity will be undertaken directly through employer-owned, in-house training provision
- A sub-division of LEC-funded activity between private providers and in-house provision has not been possible at this stage
- Local Authority Community Learners data is an estimate based on a local authority survey

Figure 1 details the make-up and funding provision for post-16 education in Scotland. It also acts as a useful visual guide for indicating the relative size of each element of post-16 education and the relative levels of public/private funding that ‘fuel’ the sector. As can be seen from the diagram, most training is sponsored by employers, with the Scottish Funding Council in second place. With the working-age population of Scotland currently sitting at around 3.2 million, the diagram shows that around 55% are recipients of learning — whether remaining at school to complete secondary education, attending college or university, or participating in vocational learning programmes. Looking from a European perspective, the UK as a whole fares very well and outstrips the EU average coming second only to Sweden (Eurostat Structural Indicators, 2005). The 2004/05 Scottish Labour Force survey states that 30.9% of the Scottish workforce received work-related training over the three-month period prior to reporting, which slightly exceeds the average UK figure. In terms of Scottish Vocational Qualifications, the focal area of the diagram is ‘Further Education Colleges’, coupled with ‘Private Providers’ and, to some extent, ‘Other Training Provision’. The diagram also shows how Scottish Enterprise funding fits into the education equation with 47,300 learners trained using funding from SE.

Scottish Enterprise provides the majority of financial assistance where SVQs are concerned. This can be classed as ‘pure funding’ in the sense that monies contributed by Scottish Enterprise are not loans and do not require to be reimbursed. Around 65% of Scottish Enterprise funding goes to private training providers with the remainder to further education colleges. Each year, training providers (both private and public) form agreements with Scottish Enterprise to deliver vocational training programmes that will be publicly funded. Initial ‘distributions’ of funds are indicative only, and may be redistributed if achievement targets are unlikely to be met or, conversely, likely to be exceeded. There are no restrictions as to which qualifications the funding is geared toward — as long as the training provider is approved to deliver that qualification. This is largely dependent on demand, of course, although it should be considered whether employer demand and the current supply of available training leads to effective delivery of learner and local economy requirements. This is discussed later in the paper.

Available funding

Scottish Enterprise (SE)

Scottish Enterprise has a skills and learning function with a remit to improve the operation of the Scottish labour market by:

‘...developing people in work and providing the best start for young people to narrow the employment gap and increase economic activity levels.’ (Scottish Enterprise, 2006)

Sources: SFEFC/Infact (2002/03), Scottish Enterprise (2002/03), HIE (2002/03), Scottish Executive (2002/03), FSS (2004), HESA (2002/03), Estimates by DTZ Pieda Consulting based on CLD Survey (2004) and SQA (2003) data.

SE has an annual budget (around £100M for 2006) with which to deliver a number of National Training Programmes (NTP)⁴. These include:

Skillseekers

The Skillseekers NTP was introduced to replace the Youth Training Scheme. The programme supports trainees in achieving a qualification at or above SVQ/NVQ Level 2 or equivalent. It aims to encourage and motivate young people (aged 16–24), with a particular focus on those not in education, employment or training (the NEET group), entering training and securing greater levels of skills and qualifications.

Modern Apprenticeships

The Modern Apprenticeship (MA) programme was introduced in 1994. MAs aim to equip young adults with skills at an intermediate level, and provide a strong workforce development focus. MAs are pitched at a higher level than Skillseekers and constitute qualifications at SVQ/NVQ Level 3 and above. The MA programme is split between MAs (for ages 16–24) and Adult MAs (for ages 25+). Take-up of Adult MAs has greatly improved over the last three years. They have given older workers the opportunity to refresh existing skills and to learn new ones. Again, this is in line with the Government's drive for lifelong learning.

Although Scottish Enterprise focuses on what it terms 'priority industries', there are no great restrictions on the particular frameworks it supports. As long as MA frameworks are accredited, there is nothing in place to hinder candidates or employers gaining funding from SE.

In both Skillseekers and Modern Apprenticeship programmes, learners are either already in work, or are 'placed' with employers for the duration of their training. It is up to the employer whether or not a learner is retained once a training programme has been completed.

Employers

As expected, a large proportion of learning is supported by employers. Companies now tend to be more aware of the merits of continuous professional development and of in-work training in general, and there has been an upward trend in this over the past few years. According to Figure 1, 32%⁵ of employees in Scotland receive employer-sponsored 'learning'. Future Skills Scotland, through its annual employer survey, suggests that two-thirds of Scottish employers provide or arrange training for their staff each year, with around 40% receiving off-the-job training. These figures are fairly positive, particularly in light of the fact that around 97% of businesses in Scotland fall into the small or medium-sized enterprise (SME) category.

⁴ The responsibility for the National Training Programmes transferred from Scottish Enterprise and Highlands and Islands Enterprise to Skills Development Scotland (SDS) on 1 April 2008.

⁵ This is calculated using the Scottish working age population and Scottish employment rate (as of 2006) and the information from Figure 1.

Working age population = 3,175,386

Employment rate = 74.7%

$3,175,386 \times 0.747 = 2,372,013$

749,000 are employer sponsored $749,000/2,372,013 = 32\%$

Historically, many of these smaller organisations have been less inclined to spend money on staff training. Many small companies underestimate the returns on investment of staff training and don't rate it as a priority activity. The Scottish Government in hand with Scottish Enterprise is trying to re-educate employers with regard to the potential benefits of staff training and continuing professional development, as well as provide specific target groups with access to funding for training.

Scottish Union Learning Fund

Set up in 2000, this fund is specifically for union members. As part of the drive to encourage lifelong learning, the Executive tasked unions with encouraging members to get involved in learning and to be proactive in upgrading their skills. This is particularly pertinent in industries with large numbers of employees below manager level, where future technological change or decline may render current skills obsolete. The Scottish Union Learning Fund (SULF) makes approximately £800,000 available each year and has specific aims and objectives that are in line with current industry requirements.

Individual Learning Accounts

Individual Learning Accounts (ILAs) were introduced by the Scottish Executive to provide some financial relief to adult learners. Currently, those earning less than £18k annually are entitled to receive up to £200 each year and those whose income exceeds £18k are offered up to £100 (figures correct at April 2008). The ILA is not a loan and so does not require to be repaid. It is designed to assist learners with practical costs such as transport and subsistence, and is an incentive to those who need encouragement to participate in learning.

Career Development Loan

The UK Government manages career development loans (CDLs) through three banks. These are: Barclays, the Co-operative Bank, and The Royal Bank of Scotland. The ultimate decision whether to lend money lies with the bank. The loan can be used to cover up to 80% (100% if the individual has been out of work for three months or longer) of course fees plus any related expenses including books, childcare, travel expenses and any costs associated with disability. The Government pays the interest on the loan during the course and up to one month after the end of the course. The learner is then required to repay the loan over an agreed period (between 6 and 60 months depending on the bank) at a fixed rate of interest.

Learners must not be in receipt of, or entitled to receive, a local education authority mandatory award or a SAAS award, a Student Loan, or a NHS non-means-tested bursary. Recipients cannot use a CDL to pay for anything that is being financed by another public-funded source.

Loans are, generally, not popular with those participating in vocational education as highlighted in a recent Scottish Executive study:

‘In terms of current funding for vocational training, it appears that most training is paid for by employers or through government funding, and that, although some respondents had funded their own training, very few would consider taking out a loan to pay for training.’ (Scottish Executive Social Research, 2006)

With this in mind, along with the fact that Scottish Enterprise has most funding to distribute, the National Training Programme provision will form the focus of the funding element of this paper.

Funding restrictions and the potential effect on take-up

Scottish Enterprise currently funds training programmes that are aimed at specific age groups. Skillseekers and Modern Apprenticeships are available for 16–24 year-olds only. Adult Modern Apprenticeships are now available and the numbers taking and completing Adult MAs over the past three years have grown rapidly.

There is a definite focus on young people and although this is part of Smart Successful Scotland’s objectives, it must not hinder progress on ‘developing those in work’ or ‘older’ learners. SE has what it classes a ‘guarantee group’, ie those who will receive funding automatically, regardless of programme or course. This group consists of those aged 16–19.

New legislation regarding age discrimination may have an impact on the current structure of training programmes, but this remains to be seen.

Financial restrictions prompted a turbulent 2006/07 for Scottish Enterprise, with implications for NTP funding. Take-up of Adult MAs has fallen this year, after three successive years of increased activity, and this new trend may continue in future as funding arrangements are changed. However, it is likely that Adult MAs will become more focused due to this, with more attention paid to projected future industry and economy requirements. Most adult modern apprentices are already in work (as opposed to younger cohorts who are often given work placements) and have been with their employer for a number of years, so this is unlikely to be problematic — however it may stifle individual learner demand if options are limited.

There will need to be further thinking on future provision and allocation of funding due to the changing demographics of Scotland. More ‘older’ workers will mean that lifelong learning will have even greater consequences in future, with a greater proportion of demand for training being likely to come from the existing workforce, as opposed to those not yet in work. Replacement demand will also heighten this effect with more senior positions likely to become vacant in future as people retire. The Scottish Executive developed a programme to assist with the future consequences of the ageing workforce. Experience Counts has been allocated funds of £0.5M (2005–2008) to encourage older workers back into training and to support the delivery of learning opportunities that stem from the outcome of training needs and analyses. Ultimately, SVQ provision and funding must take account of the future of the Scottish economy as the public sector will always have an obligation to resolve the market failure in this area.

Scope of this project

This project was designed to examine the effect that public funding has on SVQ take-up and completion rates. This is a complex area as it is difficult to make solid, objective conclusions regarding the relationship between funding, take-up and completion rates without knowing what would have happened had funding not been available at all. Conclusions are, therefore, likely to contain a degree of subjectivity.

The approach taken was as follows:

- ◆ Select a sample of SVQ awards that span across all awarding bodies
- ◆ Contact awarding bodies for details of fees and numbers of current approved centres⁶
- ◆ Investigate take-up of selected SVQs as recorded on APS⁷
- ◆ Cross-reference these figures with data from Scottish Enterprise
- ◆ Establish potential links between funding and certification
- ◆ Analysis, conjecture and conclusions

Consideration was also given to various economic concepts that feed into the make-up of market failure and the efficiencies of public spending.

All current awarding bodies were included as part of this project and a sample of awards (some current, some now lapsed) were selected for examination. A full list of awarding bodies can be found in Appendix 1.

SQA Awarding Body has a fee structure that is predetermined and based on the level of SVQ being undertaken. Those awarding bodies listed as having a ‘partnership fee’ deliver their awards in partnership with SQA Awarding Body. Fee structures vary across other awarding bodies from £62.50 for a Level 2 in Customer Service from Education Development International plc (EDI) to £548 for a Level 4 in Pensions Administration from the Pensions Management Institute (PMI). As well as awarding-body fees, candidates/employers are required to pay training-provider fees — whether that be a college, private training provider or, where an employer is also an approved centre, in-house training. A number of training providers were contacted and information, again where available, is included in section 2 of this paper where a selection of specific SVQ awards is examined in greater detail.

It was important to sample a wide selection of SVQs spanning different industries and different skill sets to give a broad picture of trends across the SVQ market. There are, currently, around 846 SVQ titles on offer to candidates and, although a complete examination was beyond the scope of this project, a fair representation (83 SVQs) was sampled. Some had SQA Awarding Body as lead partner or awarding body. The remainder were designed and delivered by other independent, accredited awarding bodies. These cover awards from Hairdressing to Offshore Drilling Operations. Not

⁶ Awarding bodies should, by agreement, make their fees publicly available. Reasonable measures have been taken to source all awarding body fees. An investigation, through audit, of awarding bodies not willing to disclose their fee structures will be carried out in future.

⁷ APS: Awards Processing System – SQA’s in-house database for capturing award details and candidate numbers.

all awarding bodies provide SVQs that are funded by Scottish Enterprise. For example, SE does not currently support qualifications through the partnership between SQA and the Waste Management Industry Training Advisory Board (WAMITAB) due to the specialist nature of these qualifications.

Most of the 23 awarding bodies deliver only a small number of SVQs. Figure 2 shows the spread of SVQ delivery across all awarding bodies. Currently, SQA Awarding Body delivers the vast majority of SVQ awards. It offers almost 500 of the 846 SVQs on the market, and covers a range of industries and qualification levels. The other awarding bodies deliver more specialised awards.

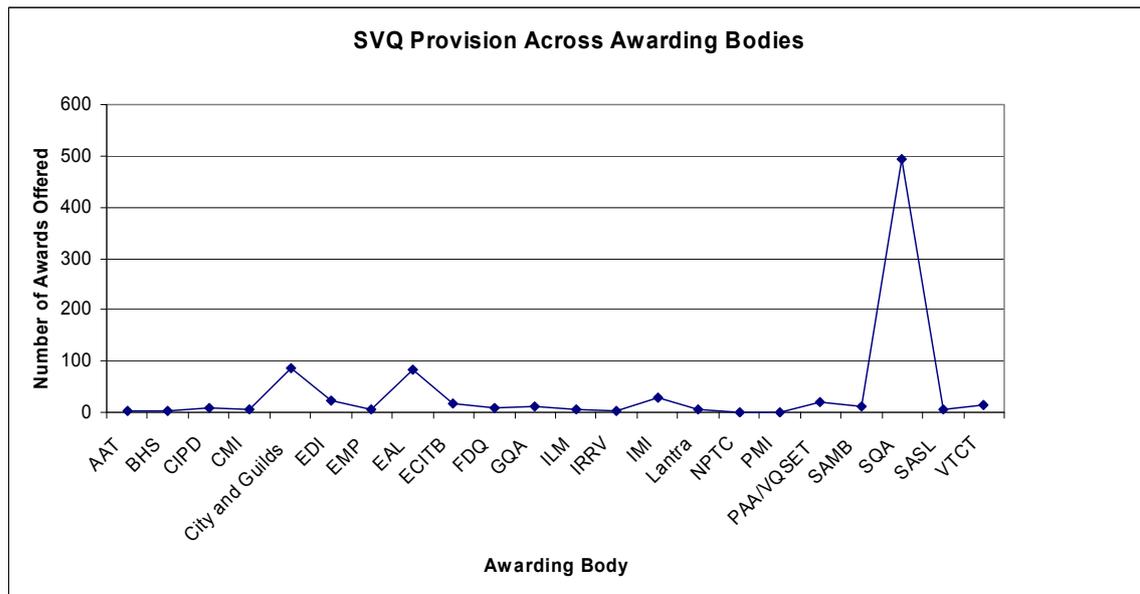


Figure 2: SVQ Provision across awarding bodies

Due to their size and prominence, EMTA Awards Limited (EAL) and City & Guilds Limited deliver a wider range of SVQs across a number of sectors, particularly in the English market. However, they also deliver alternative awards to satisfy employer demand and to offer an alternative to Scottish and National Vocational Qualifications.

Statistical investigation

SVQ statistics are kept by the SQA Accreditation Unit (AU). They record each candidate's cumulative educational achievement. The weakness in this system is that the Accreditation Unit requires information to be sent in regularly and timeously by awarding bodies. Although this is clearly stated in current SVQ AU criteria for awarding bodies, it is difficult to manage in practice. It is with this in mind that a 'health warning' is attached to SVQ statistics which are, more likely than not, incomplete. It is hoped that more rigorous audit procedures will largely eradicate this problem in future.

Year	Entries	Certifications
2000	28,358	18,128
2001	43,339	26,761
2002	41,400	25,164
2003	41,682	21,782
2004	49,873	26,696
2005	48,900	27,107
2006 (to end October)	37,387	31,393

Table 1: SVQ market performance since 2000

Table 1 shows that around 291,000 candidates were registered for an SVQ award between 2000 and 2006. Annual entries increased over the six-year period reaching a maximum in 2004. This high point was partly due to changes in legislation in the construction and care sectors. A breakdown of the 2004/05 figures is shown in Table 2 below and gives the 'top ten' entries over the period. Of these, 70% fall under care or construction sector awards, reflecting the legislative requirement changes around this time.

Entries ⁸	Code	Level	SVQ Title	Awarding Body
7,610	G5NJ 23	3	Customer Service	SQA
5,906	G5K1 22	2	Construction & Civil Engineering Services: Construction Operations	SQA & CITB
5,807	G7LP 23	3	Health & Social Care (Adults)	SQA
5,189	G3HT 22	2	Care	SQA
4,833	G7LN 22	2	Health & Social Care	SQA
4,198	G45V 23	3	Early Years Care & Education	SQA
4,181	G6R7 22	2	Construction: Carpentry & Joinery	SQA & SBATC
4,153	G77N 22	2	Hairdressing	SQA
4,059	G6R8 23	3	Construction: Carpentry & Joinery	SQA & SBATC
4,005	G5W6 23	3	Administration	SQA

Table 2: Top 10 SVQ 'entries' 2004/05

As shown in Table 2, all the top performing awards are offered by SQA Awarding Body, whether alone or in partnership with another awarding body. As the sole awarding body in Scotland, SQA is likely to remain the majority provider due to the high levels of recognition attached to the 'Scottish brand'. The recognition and

⁸ Entries or registration figures have only been a mandatory requirement from 'accreditation only' awarding bodies since 2004.

reputation of SVQs in Scotland mean that they are likely to remain dominant in their domestic marketplace. However, the growth in alternative awards and providers does mean that the marketplace is likely to change in future and although this may not hamper demand for SVQ qualifications, there is likely to be increasing levels of competition from other awarding bodies. The incidence of competitor awards is examined in section 2 of this paper.

Table 2 highlights the impact that the growth of the Scottish retail and hospitality sector has had on entry levels in customer service qualifications. Service sector growth, where the quality of staff can be the one difference between two otherwise identical services, has had a significant impact on SVQ uptake in this area. Tourism is one of Scottish Enterprise's 'industries of significant local economic importance' and training programmes and local initiatives such as Working in Tourism & Hospitality (WITH) have promoted qualifications across the industry.

The current (live) SVQ awards that have the highest take-up are shown in Table 3 below. New audit procedures and emphasis on the importance of accurate data submissions will, in future, allow for more in-depth analysis of SVQ statistics. Predicting future completion rates will become more achievable over time as more data is recorded. This should help give an early indication of awards where take-up is subsiding, or awards where completion rates are highlighting their fitness for purpose, or otherwise.

Certs	Code	Level	SVQ Title	Start Date	Finish Date	Awarding Body
2,244	G7LN 22	2	Health & Social Care	05.11.2004	30.11.2011	SQA
1,974	G7LP 23	3	Health & Social Care (Adults)	05.11.2004	30.11.2012	SQA
1,580	G77N 22	2	Hairdressing	14.08.2003	31.07.2010	SQA
990	G6XN 23	3	Hospitality Supervision	19.07.2002	28.02.2011	SQA/HAB/B IIAB
989	G6N6 24	4	Registered Manager in Health & Social Care	28.02.2002	28.02.2011	SQA
917	G5SP 22	2	Food & Drink Manufacturing Operations	21.03.2001	31.12.2009	SQA & Improve Ltd
814	G6VA 22	2	Driving Goods Vehicles	19.07.2002	31.07.2009	SQA & Skills for Logistics
647	G7E6 22	2	Performing Manufacturing Operations	22.04.2004	30.04.2011	SQA
629	G7Y3 22	2	Business & Administration	20.07.2005	31.07.2010	SQA
614	G5XT 22	2	Public services	09.10.2001	31.12.2009	SQA

Table 3: Top performing current SVQ awards

Table 3 gives a snapshot of current high-performing SVQ awards, based on the number of certificated candidates. It gives an insight into current demand trends, showing what employers require of their staff and at which level. All of these awards,

bar one, are either part of an MA framework or have been funded through the Skillseekers programme. The award in Public Services is not funded by Scottish Enterprise but is a military-related award that receives alternative public money. The fact that these awards represent the current 'top ten', and all receive public money in one form or another, may suggest that there is a direct correlation between the availability of funding and the levels of uptake for an SVQ. It is difficult, however, to make any such judgement without examining a sample of SVQs across each awarding body. This will provide a better consistency and garner information about any other factors that may affect the 'success' of an award. Other factors may include:

- ◆ Alternative qualifications on the market
- ◆ Suitability of the award for its intended market
- ◆ Market conditions — rise/demise of industry
- ◆ The level of qualification required on entering an industry
- ◆ Make-up of current workforce — age/skills/motivation
- ◆ Existing skills gaps
- ◆ Attitudes to training and learning

These factors are considered with particular emphasis on identifying alternative qualifications that may act as substitutes to the SVQ route.

Cross referencing SQA Accreditation Unit data with Scottish Enterprise figures

A sample of SVQs was selected and tracked through SQA's APS database and contrasted with Scottish Enterprise's Corporate Training System (CTS) which records the certification rates for all the awards that it funds. The sample covers the period between 2002 and 2006. Table 4 below summarises the top and bottom five SVQ awards, in terms of certification rates, from the sample taken. Awards with certification rates lower than 10 have been excluded from Table 4.

SQA APS	SE CTS	SVQ Title	SVQ Code	Level	Awarding Body	Funded
1,596	689	Engineering Production	G3WM 23	3	EAL	✓
846	395	Engineering Maintenance	G3WL 23	3	EAL	✓
655	563	Hospitality Supervision	G6XN 23	3	SQA & HAB	✓
453	0	Cleaning & Support Services	G5WY 21	1	SQA & BICS	✗
344 ⁹	356	Vehicle Maintenance & Repair	G5LA 23	3	C&G	✓
10	0	Offshore Drilling Operations	G6M2 23	3	SQA & Cogent	✗
13	0	Waste Management Supervision	G731 22	2	SQA & WAMITAB	✗
14	0	Cleaning & Support Services	G5X4 22	2	SQA & BICS	✗
15	0	Pensions Admin	G5H9 24	4	PMI	✗
19	8	MES Heating Ventilation: Rectification of Systems	G7A8 23	3	SQA & Summit skills	✓

Table 4: Highest and lowest certification levels from sample

Table 4 illustrates, quite clearly, that those awards with the highest certification rates are also those which receive the greatest share of support from Scottish Enterprise. There is one anomaly, however. Cleaning & Support Services has a high certification rate, but is not funded. The same can be said of the bottom five awards where 80% receive no funding, but one specialist qualification does: MES Heating Ventilation: Rectification of Systems. Demand may be low, but this occupational area is specifically cited on Scottish Enterprise's list of supported occupational areas (see Appendix 2) and so receives support through the Modern Apprenticeship framework.

From the sample of SVQs taken, just less than 49% of the total number of candidates certificated received funding from Scottish Enterprise via Skillseekers or Modern

⁹ Due to incomplete data submissions from awarding bodies, the SQA figure is lower than the SE figure. Realistically, the SQA figure should be at least equal to the SE figure and is likely to exceed it.

Apprenticeship programmes. Awards where there has been substantial take-up but not such a correspondingly high level of funding made available, other than those shown in Table 4, include:

- ◆ Accountancy (around 19% funded)
- ◆ Retail Operations (less than 3% funded)
- ◆ Horse Care (21% funded)

The percentages here refer to the number of individuals to receive SE funding as a proportion of SQA AU certification data for 2006.

All of these occupational areas fit into the table in Appendix 2. That table details the occupational areas that are eligible for funding in 2006/07 and which are supported by Scottish Enterprise. The table suggests that employers in these areas are putting staff through training without accessing available funding. This shows that a definite, strong, market for these awards exists, even in the absence of public funding as an incentive. Why such a high proportion of employers in these sectors do not take advantage of funding is unknown. It may be the case that, particularly in larger companies, these employers may also be registered 'approved centres' and can deliver the awards in-house without having to finance the cost of an external training provider and so funding is simply not required.

Funding from Scottish Enterprise generally excludes SVQ Level 1. Awards where Level 1 is deemed by industry to be the required standard are not eligible for funding from Scottish Enterprise. Some awards, such as Cleaning & Support Management, merely do not fall under a supported occupational area, as determined by Scottish Enterprise (see Appendix 2) but both Level 1 and Level 2 continue to attract candidates, with Level 1 performing particularly well.

SVQs that are delivered by local authorities are not eligible for further public funding so qualifications such as 'Housing & Council Tax Benefits' and 'Public Services' receive no funding from Scottish Enterprise. They are funded through other public funding streams including local authorities, military, and the Ministry of Defence. Of the 846 SVQ awards that are currently 'live', 543 of them have zero uptake. Of these, 141 have been live for less than a year. In the early stages of an award being introduced to the market uptake is typically very low as centres must first of all seek approval to deliver the new award. Other factors such as the fact that colleges and training providers enrol students at specific times during the year, and that marketing material may take time to be distributed, may also affect first year rates of uptake. However, that still leaves 402 mature awards that have no candidate interest and, although some of this may be due to incomplete data being received from awarding bodies, there remain a substantial number of awards with no registered candidates. Again, more rigorous audit procedures and the publishing of take-up and completion rates in the SVQ Update publication (by awarding body) may resolve data submission issues. If, however, these awards genuinely have zero uptake then a severe rationalisation of supply may be required in future.

Corporate demand versus student choice

The problem in examining the relationship between SVQ take-up rates and funding availability is that it focuses on corporate rather than individual demand for training where, for instance, Modern Apprentices and Skillseekers programmes are designed to fit the needs of employers rather than those of individual learners. The market for SVQs is dominated by demand from larger employers where, reportedly, 1% of employers participating in MA/SS programmes are responsible for 25% of candidates (Evaluation of Modern Apprenticeships & Skillseekers Programmes, 2006¹⁰).

Interestingly too, the majority of employers who have candidates funded through Scottish Enterprise programmes tend to be large, rather than small organisations. Scotland is predominantly made up of SMEs (up to 250 employees) and it tends to be those at the top of the scale, or even larger companies that receive most funding from Scottish Enterprise.

Corporate demand has played an even greater role over the last few years as almost one-quarter of modern apprentices were discovered to have been in their job for over a year prior to starting their Modern Apprenticeship. This was highlighted as an issue in the MA/SS evaluation (November 2006) as training providers were found to have been increasingly recruiting those already employed to reduce the likelihood of candidates failing to complete (therefore almost guaranteeing that they get the full amount of funding from Scottish Enterprise). This marginalisation is obviously not beneficial for the many smaller employers who would really reap the benefits of having a funded apprentice serving a placement with them where they would not otherwise afford to take one on.

Adult Modern Apprenticeships are perhaps a better indication of actual learner demand as these candidates tend to participate because of the accreditation or the actual qualification. They do not require the programme to serve as a vehicle to employment. On average, adult modern apprentices have been with their employer for up to 11 years and view training as a way to get their existing skills and experience formally recognised. In terms of training, 90% of adult modern apprentices felt that they had made the 'right choice' and this is mirrored by the high completion rates for these programmes (68% compared with 55% for MA/SS programmes).

The 'age factor'

As a nation, the UK has a greater focus on qualifications for its young people rather than those already in work. However, this does not mean that we are a poorly skilled nation. Lord Leitch, in his review of skills, states:

'The UK's skills base has been historically weak; the product of longstanding failures in the education and training system...the UK's skills base remains mediocre by international standards.' (Leitch et al, 2006)

The Leitch Review looked at the UK as a whole and this bigger picture distracts from the fact that international comparisons show that the UK's *younger* workers are at least as well qualified as their peers in other countries. Table 5 looks more closely at the information that lies behind the bigger picture. As shown, the 19–28 cohort fair

¹⁰ Cambridge Policy Consultants, 2006

reasonably well, performing better than Germany at the lower end and substantially better than the USA.

Qualified at Level 2 & above	UK	France	Germany	Singapore	USA
% Total workforce	64	77	85	67	73
% aged 19–21	72	84	68	83	66
% aged 25–28	73	86	85	82	73

Table 5: Percentage of workforce qualified at Level 2 and above — international comparison. Source: Skills in Context 2.0 (CFE, 2007)

This is also backed up by evidence from Eurostat’s 2002 labour force survey where the UK outperforms all other countries, barring Iceland, when looking at the proportion of those aged between 25 and 59 who are in education.

‘These underlying figures do not sit easily with our current skills policy, which focuses heavily on younger people...’ (CFE, 2007)

Interestingly, in terms of SVQ uptake, there is a healthy spread across the age spectrum. This is a positive sign that workers who have been in the labour market for a long period of time are consciously getting formal recognition of their skills and achievements. Data from 2006 shows that, although the majority of all SQA Awarding Body awards were taken up by candidates aged below 20, there is a fairly even spread of take-up across all other age groups, with a positively high level in the 40–49 bracket.

BY LEVEL AND AGE, 2006								
ENTRIES BY LEVEL OF QUALIFICATION AND AGE								
LEVEL OF STUDY	TOTAL	AGE GROUP						
	ENTRIES	<20	20-24	25-29	30-34	35-39	40-49	50+
1	1,735	948	159	106	102	109	192	119
2	20,364	8,777	2,789	1,413	1,251	1,638	2,869	1,627
3	20,033	6,564	4,265	1,770	1,552	1,638	2,928	1,316
4	2,592	2	75	227	336	484	992	476
5	77	0	0	6	3	14	39	15
All levels	44,801	16,291	7,288	3,522	3,244	3,883	7,020	3,553
- as percentages		36%	16%	8%	7%	9%	16%	8%

Table 6: Scottish vocational qualification entries (awarded by SQA)

Note: this includes SQA Awarding Body SVQs only (80% of the market)

In their latest review of the Scottish labour market, Futureskills Scotland reinforced the importance of reaching out to the ‘older’ members of the workforce. The changing Scottish demographic means that future policies will need to move away from their current focus on the 16–24 cohort and concentrate on the more prominent 35+ groups.

‘The principal issue will be around the ageing of the workforce. In the longer-term, there will be fewer young people in the workforce. The proportion of working-age people from older age groups will increase over the next two decades.’ (Futureskills Scotland, 2007)

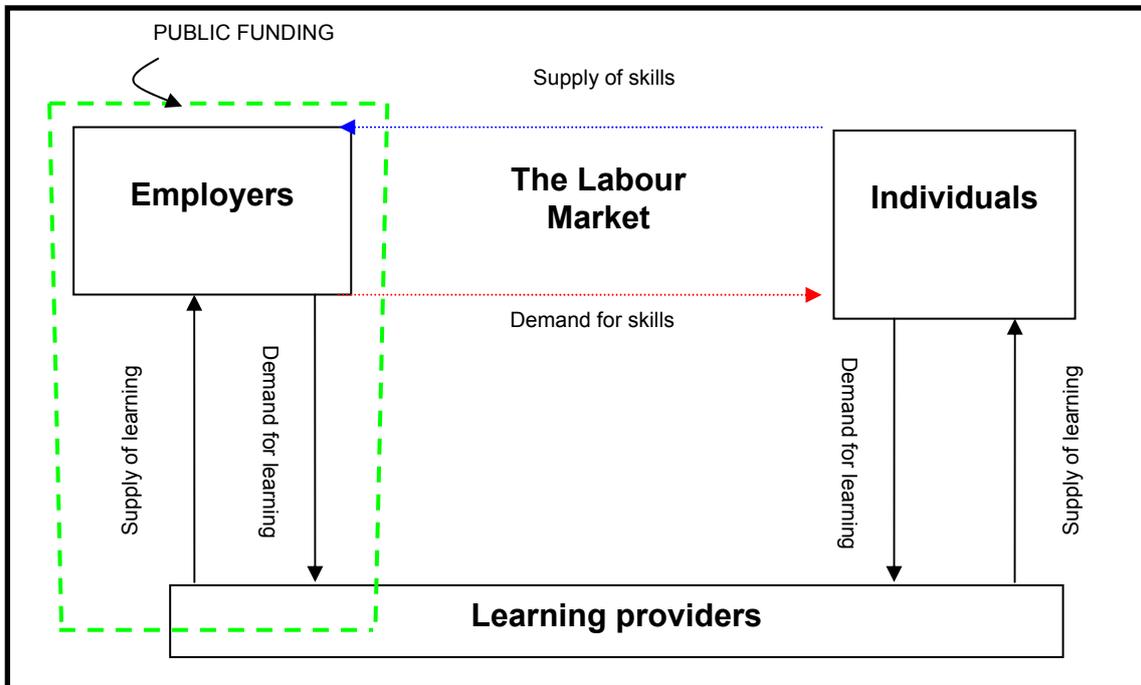


Figure 3: The market for skills

Figure 3 illustrates, simply, the way in which the market for learning works in Scotland. As discussed previously, the market for vocational qualifications in Scotland is largely led by corporate demand with less emphasis on the demands of individual learners. Funding from Scottish Enterprise makes up the vast majority of available financial assistance and is directed at employers and distributed directly to training providers. This funding cycle is highlighted by the dashed ‘public funding’ line in Figure 3.

Training providers draw up agreements with Scottish Enterprise which determine the level of provision to be supplied by each training provider and enable the initial distribution of funding to be determined. The table in Appendix 2 shows Scottish Enterprise contribution rates, where the ‘OBF rate’ shows what proportion of funding is held back until a candidate has been certificated (ie completed the course). The remainder of funding is allocated earlier as trainees meet predetermined ‘milestones’ during their training. In most cases, including Modern Apprenticeships and Skillseekers programmes, 25% of funds are held back until a candidate completes (50% for Adult Modern Apprenticeships) which means that training providers do not get the full financial assistance until candidate certification. Figure 3 emphasises that public funding for SVQs very much revolves around employer demand as opposed to other forms of publicly funded further and higher education which centres on individual demand.

It is difficult to gauge whether funding has a direct impact on completion, in comparison to take-up, rates. This is because completion rates ultimately depend on whether or not a candidate does the required work and passes his/her assessments. The employer/training provider does not ultimately determine this, and because the individual receives no financial incentive to complete, the presence of funding is unlikely to affect an individual's propensity to complete their training. Ultimately, it is the training provider who has the financial incentive to encourage candidates to complete their training although there is, practically, very little they can do to achieve this. Employer attitudes are interesting:

‘Employers felt strongly that it mattered whether trainees completed their qualification... Despite this, however, they still valued the benefits from the training received through partial completion, with 60% of employers feeling that the company benefited from the training, even if the trainee did not complete the programme.’
(Cambridge Policy Consultants, 2006)

The Scottish market for vocational qualifications focuses on the left-hand side of Figure 3 as employees are brought up to their employer's demanded skill level. Skillseekers and modern apprentices not already in employment, but who have perhaps been signposted by Careers Scotland or a job centre, are reliant on available employer placements — which may also determine demand for particular SVQs or at least limit trainees to a predetermined framework or SVQ.

It may be useful to look at a funding mechanism where funds are allocated to the individual learners rather than direct to training providers. This may help to gauge whether there is an actual advantage to re-thinking the current distribution of Scottish vocational education funding, making it more learner-led than employer-led.

Funding: An Austrian perspective

Scotland has what may be classed as a supply-side financing system where, as illustrated in Figure 3, funding is distributed through training providers and employers. An alternative way is to distribute funding to the individual learners themselves. This is known as demand-side financing and focuses on the actual demands of learners as opposed to the predefined supply determined by employers and training providers. This would shift the dashed box illustrating public funding in Figure 3 from the left to the right of the figure.

Public funding of adult education and training in Austria works on the demand-side premise. It aims to combat the shortfall in funding (as compared to the OECD lifelong learning targets) and to address the lack of investment made by employers — which had previously been hampered by a three-fold increase in the cost of vocational education and training in Austria between 1986 and 1996¹¹.

¹¹ Demand-side financing — a focus on vouchers in post compulsory education and training, (CEDEFOP, 2000)

Two demand-side financing policies targeted at individuals exist in Austria to stimulate participation in continuing education, these are:

- ◆ Training vouchers
- ◆ Training accounts

These schemes enable training to be co-funded by the regional government and the individual learner. Both schemes allow the individual learner to secure a financial entitlement towards the cost of training via a contractual agreement with the regional government.

‘...while the trainee meets the training costs at the outset of the course, there is a pledge from the provincial government...to meet certain costs in advance of the course being taken.’ (CEDEFOP, 2000)

Funding is usually paid to the individual upon his/her meeting agreed attendance levels and/or certification. This approach to funding does therefore provide individual learners with the incentive to complete their training. Because the learners receive the funding, they have more incentive to work hard so that they meet their personal milestones and therefore get the funding. This may lead to a greater correlation between funding levels and completion rates. Regional governments work with local training providers to ensure high standards and high quality training. Any individuals wishing to receive funding may only participate in training at an ‘approved’ training institution. This gives the regional government the ability to quality assure the training delivered and provide an element of ‘best value’ in terms of public spending into the scheme.

The schemes have been well received by individuals with over €9M transferred to successful applicants between 1994 and 1998 in Upper Austria alone. The number of applications has been rising steadily with over 90% accepted for funding and, on the surface, this way of allocating funding appears to have proven successful. The schemes vary and are designed to fit local needs. As with most lifelong learning strategies they aim, amongst other things, to increase productivity levels. Although productivity levels have not been formally assessed, the schemes have succeeded in increasing participation levels in training across the country, which is a positive indicator or proxy for productivity in general.

Looking in more detail, however, these schemes provide more benefit to the better educated and to those more financially affluent. Although unemployed individuals have participated, there are currently no ‘core skills’ training programmes or basic, generic training for the unemployed. Most schemes are designed for those wishing to upgrade their existing skills.

Demand-side financing versus supply-side financing

Both models have a number of negative side effects. The supply-side model may exclude specific individual learning requirements or exclude particular occupational areas from funding eligibility, whereas the demand-side excludes the less well off and less well educated. Again, it is difficult to assess the 'extra' demand created through the existence of funding without knowing what demand would have been with no funding in place. The Austrian model was, in part, created because the cost of training had risen substantially over a ten year period giving employers little incentive to buy. However, it should be emphasised that, unless the price elasticity of demand for training was perfectly elastic, which in itself is unlikely unless there were many substitutes for this particular type of training on the market, some training activity is likely to have existed without any funding in place.

Funding and the deadweight issue

One of the key questions that should be addressed when evaluating the effect of funding on SVQ uptake or completion rates is:

What would have happened had no funding been available?

It seems reasonable to argue that the relative financial impact for a small employer taking on an apprentice or training existing staff would be much greater than that of a larger employer. As reported through their evaluation of the Modern Apprenticeship and Skillseekers programmes, Cambridge Policy Consultants reiterate that:

'Compared to all employers in the Scottish Enterprise area, placement organisations tend to be larger and very small firms are under-represented.' (Cambridge Policy Consultants, 2006)

The fact that this situation exists begs the question of how efficient the distribution of funding across employers in Scotland actually is. If monies are ultimately used to finance the training costs of large organisations, then would these employers have put their staff through training or taken on an apprentice without the public funding? 'Additionality' is a guiding principle for all projects undertaken by Scottish Enterprise, and if funding is not going to those most in need, then the level of additionality achieved should be questioned. The Scottish Government is working to encourage an environment where lifelong learning is truly fostered by Scottish organisations and individuals alike. It is attempting to get everyone in Scotland to value learning and personal development. The negative impact of public funding going to the wrong organisations could lead to a situation where learning is under valued.

'From an economic perspective, removing all costs associated with training creates a risk of encouraging deadweight and displacement but also a risk of encouraging perceptions that training benefits are something that can be gained for nothing.' (Arad Consulting Ltd in association with EIESP, 2005)

‘Displacement’ exists where training may have taken place with an alternative training provider had the public funding, or subsidy, not been available. Therefore, causing a shift in demand from provider X to a ‘displaced’ demand for provider Y, as opposed to creating new demand. ‘Deadweight’ exists where there is no shift in demand as well as no new demand created or, in other words, where demand would have existed anyway.

Like supply-side financing, demand-side financing also leads to issues surrounding deadweight. An evaluation of the Austrian model gives insight into this:

‘Whilst a substantial share of applicants (57%) would have participated in training without the training account scheme, the remainder (43%) viewed the financial assistance as decisive. On the one hand then, there was a problem with deadweight, whilst on the other the scheme had a major stimulating effect.’ (CEDEFOP, 2000)

Professor Ewart Keep, in his recent paper for SSDA Catalyst examines policy responses to market failure in skills and says:

‘There is also the danger that the more the state intervenes to correct for perceived market failure, the less able are the market’s own self-correcting mechanisms to function... The recent example of regional shortages for plumbers, news stories about what plumbers can earn, and consequent rises in enrolments in plumbing courses in FE is a good instance of the market working.’ (Keep, 2007)

In terms of deadweight, the real risk is that the public funding (subsidy) rapidly creates a form of welfare dependency, leading employers to become even less inclined to invest in staff training and skills for the future. Figure 4 provides a visual representation of the deadweight issue.

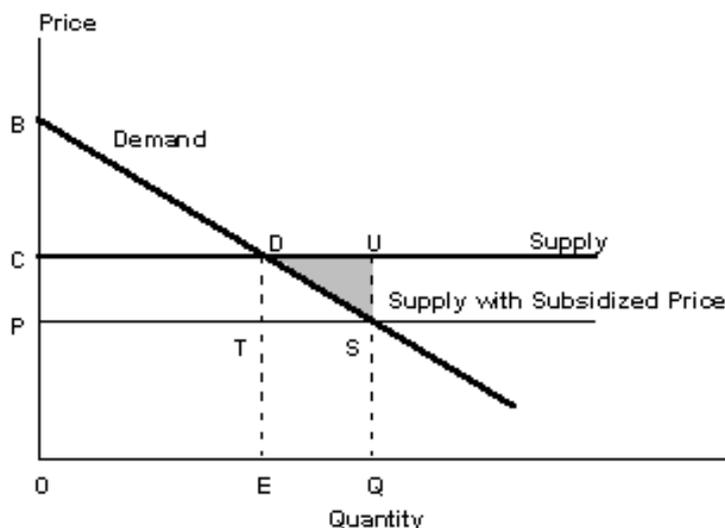


Figure 4: Deadweight loss from a price subsidy
(Source: Congressional Budget Office)

The economic loss that results from subsidised prices (which is, in essence, what public funding does) is illustrated in Figure 4 above. The line labelled ‘Demand’ shows the (hypothetical) quantity of ‘vocational learning’ that employers might choose to buy at different prices. The line labelled ‘Supply’ shows the cost of providing additional learning. For simplicity, that cost is assumed to be constant.

In the absence of funding, employers would purchase the quantity E at the price C (indicated by the intersection of the supply and demand lines). The value of this learning to employers is represented by the area under the demand line between O and E, and the cost of those goods is the rectangle OCDE. The net benefit that unsubsidised learning gives employers is the difference between the value of the learning and what the employers pay for it, or the area of the triangle BCD.

If funding lowered the price that employers pay from C to P, the quantity of learning purchased would rise from E to Q, showing that funding has ‘stimulated’ demand.

The amount that employers pay for the quantity Q would equal the area of the rectangle OPSQ, and their net benefit would increase from the area of the triangle BCD to that of the triangle BPS. That increase (which is equal to the area CPSD) measures how much employers would gain from the subsidy.

The cost of the subsidy to taxpayers, however, would equal the area of the rectangle CPSU. Thus, the subsidy’s cost to taxpayers would exceed its benefit to employers by an amount equal to the area of the shaded triangle DUS.

That difference is known as the deadweight loss due to the subsidy. It reflects costs that would be incurred by taxpayers but not offset by any benefit to employers, and it results from the distortion in consumption decisions caused by the price subsidy¹².

The added complication with learning is that the benefits derived from it are notoriously cumbersome to measure. Return on investment in training is something that organisations of every size struggle to measure and due to this, there will be some argument surrounding the actual level of deadweight that is generated through public funding or subsidising.

However, it is vital that the culture of lifelong learning is not marred through employers’ potential lack of willingness to pay for staff training if no funding is available in future. It is also vital that excluded or marginalised individuals and small firms are given priority when allocating funding as this will create neither displacement nor deadweight. It is still the case that poorly qualified staff are often excluded from training where:

‘Training by employers is disproportionately focused on highly-skilled workers, who are five times more likely to be trained at work than low-skill workers.’ (Leitch et al, 2006)

The Scottish Government needs to promote its aims for getting working age adults up to SVQ Level 2 (SCQF level 5) to ensure that those with very low level, or with no formal, qualifications are not left behind.

It is interesting when looking at awards such as Cleaning and Support Services Level 1, which although not funded through national programmes, achieves high levels of uptake. There is obviously buoyant demand for industry-specific qualifications and employers are willing to finance these where necessary. In this situation, if the award

¹² See Appendix 3 for a worked example of how a subsidy can lead to deadweight.

became eligible for funding it would be interesting to see how this affected levels of demand for the qualification. From an individual learner's point of view, particularly at the lower qualification levels, funding is likely to play a very influential role in learning decisions and, subsequently, in influencing demand.

'...only 19 per cent of adults in the UK report contributing any of their own funding towards education and training, compared with an OECD average of 37 per cent.'
(Leitch et al, 2006)

Individuals/employees with low levels of educational attainment are least likely to get involved in any sort of learning, without incentive. This may be due to social class, age and general perceptions of the learning culture. It is precisely these marginalised, excluded individuals and employees that public funding should attempt to attract into learning to raise the standards of education across Scotland. Public funding should only be applied to situations where a market failure exists. This would also eradicate the occurrence of displacement and deadweight as well as truly stimulate new demand for learning, driven by public funding.

Demand, need and supply

Having looked at both demand- and supply-side financing mechanisms and how they are driven, it is pertinent also to examine 'need' — the missing determinant of an equitable market. Need must be taken into consideration when researching public funding mechanisms, as the main indicators of need tend to be those which characterise market failure and those which the public sector has a duty to manage. Indicators of 'need' give an idea of those marginalised from a market with no government intervention, including those individuals in inadequate housing, low income families and those with no formal qualifications. The flaw in both demand- and supply-side funding mechanisms is that they either include those with no great need for public funding or exclude those who would most benefit from it. However, it is almost impossible to create an equitable 'means testing' mechanism, particularly where public spending is dependent on the political environment, where funding decisions may ultimately be made on political grounds, rather than through an analysis of need.

In the same vein, the needs of the economy should also be considered. Scottish Enterprise has an economic development remit and, along with current business requirements of businesses and employers, must also examine what is likely to be required in future so that skills gaps are pre-empted and minimised early. The balance between providing funding for skills and learning that are needed from a social point of view, and those that may be required from an economic view, also creates a dichotomy similar to the one created by the demand-side/supply-side mechanisms described earlier.

The supply-side funding mechanism in Scotland does attempt to concentrate on the need of the economy although its degree of success may be argued by some and, through its various focal and priority groups (NEET, 16–19 year-olds), also attempts to tackle, to some degree, social need. It is incredibly difficult to get the balance absolutely right, however, so there are bound to be winners and losers where public funding is concerned. Economic need must be met while, at the same time, driving and encouraging individual and employer demand.

Is lifelong learning, in its true sense, adequately financed?

Lifelong learning is attitudinal. It sees individuals provided with learning opportunities at all ages and in numerous contexts: at work, at home and through leisure activities, not just through formal channels. The lack of instances of employer funding directed at non-specific training makes this concept one that is difficult to practice. UK law does not dictate that employers have to contribute to an annual learning budget for their staff (unlike parts of the EU) where, for example:

‘In France, all enterprises have to make a fixed compulsory contribution which covers all aspects of initial and continuing vocational training.’ (Folkmar, 1999)

Although Scotland does not have a very poor rate of employer involvement, there is definitely scope for improvement. This is particularly pertinent when looking at training that may not necessarily be described as being ‘vocational’. Those less inclined to get involved in vocational learning may benefit from other types of training to boost self-confidence, motivation and even communication skills. This may be something that employers may wish to develop in future, as:

‘Research shows consistently that the dominant reasons for educational participation tend to be vocational, but learning for other reasons is also valuable, and helps to create a culture where learning is the norm.’ (St. Clair, 2006)

There are few employers who actively promote non-vocational as well as vocational learning, but one employer that does actively promote this is the Ford motor company. Ford launched its Employee Development and Assistance Programme (EDAP) in 1989 to:

‘...offer employees a wide range of personal and career development education and training, retraining and development activities and to make available a variety of employee assistance services to encourage healthier lifestyles.’ (Ford, 1996)

Employees were each allocated £200 a year to use in training that was specifically not related to their current job and not undertaken during working hours. The scheme has seen success with 35% of all employees participating in learning opportunities provided. One-third of participants undertook educational courses, with others using the resource to take classes ranging from smoking cessation to bricklaying. This is perhaps something that should be considered by employers as part of the drive to promote staff productivity, motivation and a willingness to participate in future learning.

This kind of employer support can play a crucial role in encouraging staff to participate in learning activities and in driving up the levels of vocational attainment in the Scottish workforce. Encouraging staff to participate in courses that, although vocational, are not necessarily linked to their current job may encourage staff to participate in wider training as they are hooked into ‘learning’ and are offered new skills and opportunities.

Individuals must be given the incentive to access learning and although self-improvement is inherent in some people, a degree of nurture is required in others. The current funding situation in Scotland shifts funding responsibility onto the public sector and away from the employees who are most likely to profit from it in the longer term. Examination of SVQ statistics does point to a correlation between public sector funding and take-up/completion rates, which may indicate that funding does lead to stimulation of demand for these qualifications. However, to avoid a situation where employers rely on the public sector for financing their staff training, more should be done to promote the value of vocational qualifications and their relevance to working in Scotland today and in the future. Public funding is very useful to stimulate demand, but should not be allowed to become an alternative to private funding. Public spending inefficiencies exacerbate deadweight issues and ultimately fail to make best use of tax payers' money.

Smaller, more sophisticated industries that are currently excluded from public funding allocations may benefit from access to funding in future, as funding availability and its perceived effect on demand may act as a catalyst to boosting interest in particular employment routes. This has been demonstrated by the MA programmes designed to encourage individuals to engage in training in more traditional working environments. An example of an industry that may be helped in this manner in future is the waste management industry. Communication with WAMITAB at the end of 2006 suggests that they are currently in discussion with SE to promote waste management qualifications across Scotland and, at the same time, garner funding from SE and other interested parties. This has come into fruition and Waste Management at Level 2 now receives funding from SE under the MA framework for 2008/09. Take-up rates for SQA/WAMITAB awards will be monitored and recorded as there is an existing benchmark and recorded statistics for take-up and completion of their awards where no funding has been available.

Conclusion

Looking at available data, there does, on the surface, appear to be a correlation between funding, uptake and completion rates. It can be concluded that from the sample taken, it is the case that the majority of awards with highest rates of completion are also those which receive public funding. However, this is not a particularly robust conclusion as, when looking behind the presented figures, it is apparent that there may be alternative drivers. It should be asked whether funding really is a demand stimulant or whether is it more the case that:

‘...education has come to substitute for skill formation activity that employers are deemed loath to supply’. (Keep, 2007)

Or, in other words, has the provision of government funding merely created a ‘welfare dependency’ among our employers?

It is incredibly difficult to make concrete conclusions without a sound benchmark to use as a control. Without benchmarks, conclusions will remain, largely, subjective. The Scottish approach to the public funding of vocational education focuses on the supply-side of the market, specifically at training providers and employers. An

alternative demand-side system was briefly examined to decipher the effect that putting the funds directly in the hands of the learner has on uptake, completion and, importantly, its impact on deadweight. Demand-side financing is not necessarily 'better' or 'more efficient' than its supply-side counterpart. Both have been found to have issues with deadweight and both may be seen, to altering degrees, as not being entirely inclusive. What supply-side financing does do is ensure that specific target groups get access to funding. The Scottish Government and Scottish Enterprise have targets to ensure that designated proportions of the NEET group, for instance, are given access to funding, where they would otherwise be unlikely to participate. This is helpful and provides the additionality that should come of market intervention. However, this more indiscriminate allocation of funding across the Scottish economy does mean that public money also goes to those not necessarily in need. The demand-side mechanism has the opposite effect and excludes many poor or economically disadvantaged people. What it does do is place the onus on the individual learner inasmuch as it makes them value the funding which, as a consequence, may give them more incentive to complete their course.

Both models are imperfect. However, the supply-side mechanism does go some way to tackle the market failure that naturally exists in education. Perhaps a better focused, more discriminate supply-side mechanism would ensure that funding acted as a demand stimulant and not merely a government subsidy.

2 Other factors affecting the performance of SVQ awards

Introduction

Section 2 of this paper focuses on the relationship between SVQs and other existing vocational qualifications that are available to students in Scotland. There are a number of awards from the sample taken which have either very low or zero completion rates. This part of the paper examines whether the low uptake of SVQs across particular sectors, qualification levels, and awarding bodies is a result of individuals undertaking competing vocational qualifications, or whether there is a general lack of uptake across all awards in specific areas. A very small sample was selected as it is anticipated that the entire Scottish Vocational Qualification marketplace will be examined in greater detail in another research project, soon to be undertaken as part of the extension to function work that the Accreditation Unit has planned. This section of the paper provides an overview and acts as a starting point for future research.

Table 7 lists the SVQs with low completion rates that have been chosen for further scrutiny. These awards cover a good range of awarding bodies, industries, and SVQ levels. They provide an adequate representation of less successful awards and offer enough scope to examine a good proportion of those with low take-up and low completion rates across all awards. Of the 846 SVQs currently on the market, 367 are included as part of a Modern Apprenticeship framework. Most of those listed in Table 7 do not form part of a framework, although all those asterisked may be substituted into an MA framework in favour of the listed qualification (usually SQA Awarding Body's version of the same qualification), and are used and supported in Scottish Enterprise's training programmes.

Table 7: SVQs with low take-up selected for further examination

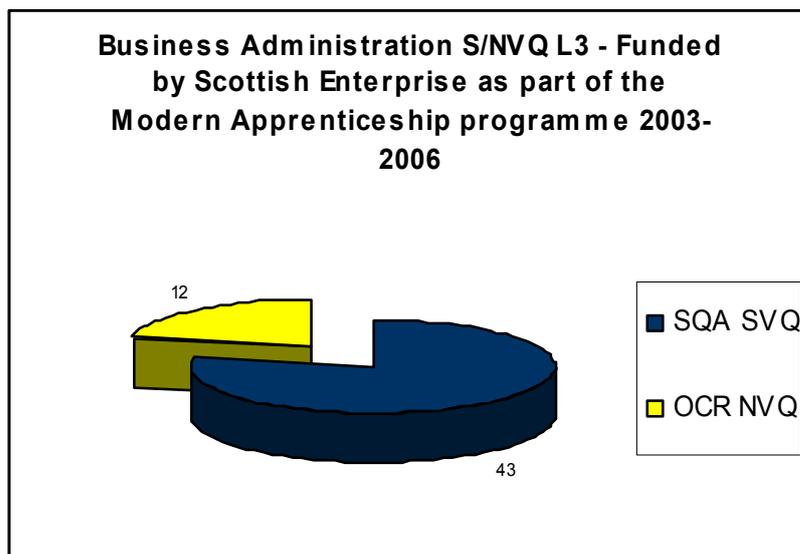
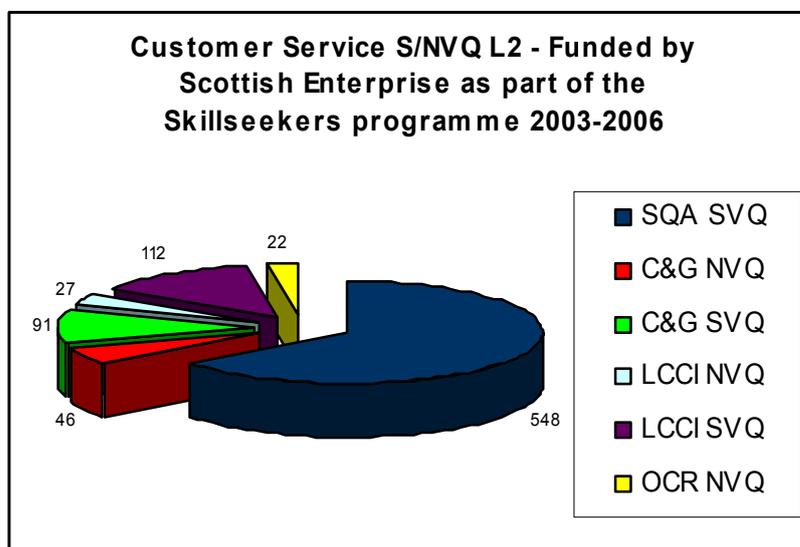
SVQ Title	Level	Awarding Body	Part of MA Framework
Sign Making	2 & 3	BSGA & SASL	No*
Personnel Management	4	CIPD	No
Personnel Support	3	CIPD	No
Management	3	CMI	No*
Building Site Management	4	SQA/COTAC	No
Conservation Consultancy	5	SQA/COTAC	No
Engineering Construction		ECITB	No
Business Administration	3	EDI	No*
Customer Service	2	EDI	No*
Food & Drink Manufacturing Operations	2 & 3	FDQ	No*
Glazing Installation Maintenance	3	GQA	Yes
Team Leading	2	ILM	No
Energy Management	4	ILM	No
Fencing	2	LANTRA Awards Ltd	No
Hairdressing	2	VTCT	No*
Barbering	2	VTCT	No*
Beauty Therapy	2	VTCT	No*

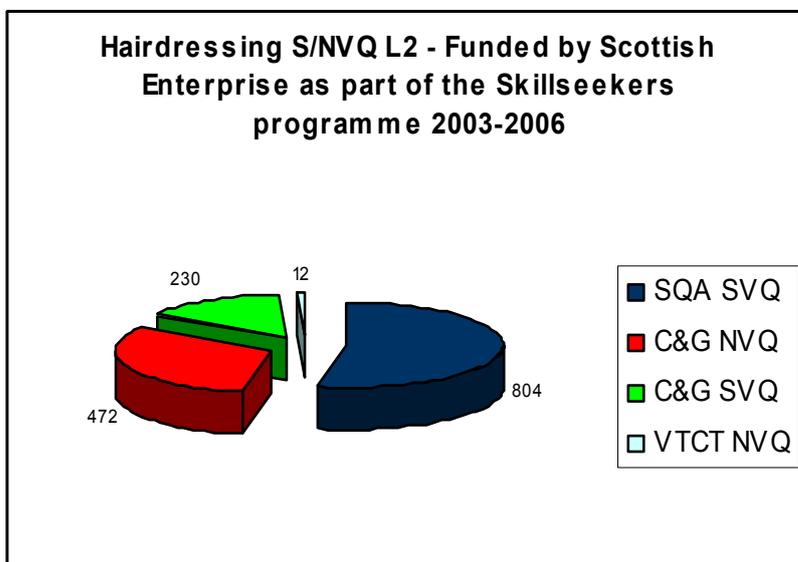
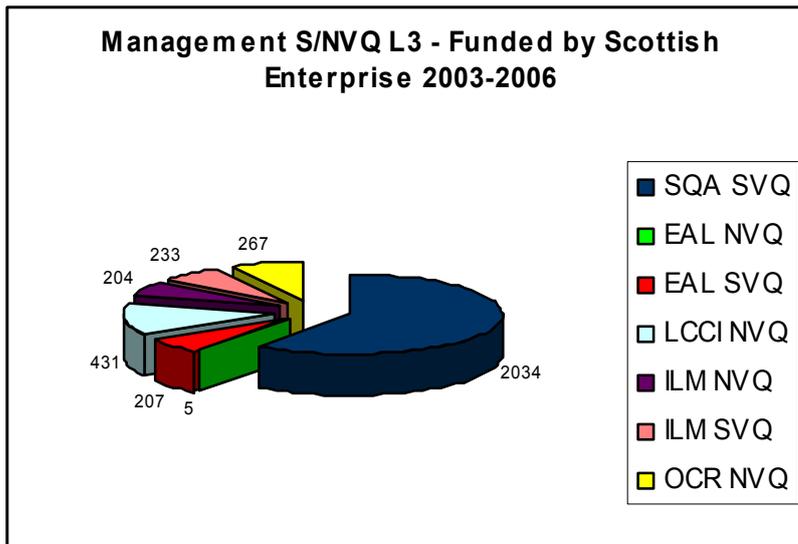
These awards were mapped against other ‘substitute’ awards which are supported by Scottish Enterprise through one of their national programmes. Data from the Scottish Funding Council was also examined to investigate whether similar awards are being offered by other awarding bodies or private training providers, therefore acting as a serious competitor for SQA Awarding Body and SVQ/NVQs.

Analysis

Firstly, the awards listed in Table 7 were compared with those supported by Scottish Enterprise between 2003 and 2006. Figures 4–7 present the awards with the greatest numbers of substitutes in pie chart format to show the alternative SVQ/NVQs that were picked up through Modern Apprenticeship and Skillseekers programmes. For each one, SQA Awarding Body’s version of the SVQ proves to be most popular.

Figures 4–7: Substitute SVQ awards





The low take-up rates for Customer Service, Business Administration (both EDI), Management (CMI) and Hairdressing (VTCT) are not likely to be due to lack of demand for these awards. The charts show that it is competition that has pushed these out of the market. Figures 4–7 all illustrate that alternative SVQ/NVQs are being funded. Again, the SQA Awarding Body SVQ proves most dominant across these awards with major players such as City & Guilds, whose NVQ/SVQs are frequently substituted into programme frameworks, providing a good portion of the remaining stake.

It is difficult to assess why these awards have little uptake, other than the presence of competitors in the marketplace. Whether alternative awards are deemed to be more highly regarded or more specific to candidate/employer requirements is hard to say as they all fit with National Occupational Standards.

SQA is a powerful brand in Scotland and is recognised by candidates and employers. Further work may be required to determine whether other differences exist which may affect the perceived value or suitability of the specific low uptake awards selected

here. There may be a range of potential factors that may stifle demand for these specific awards. Some factors might include:

- ◆ Assessment methods
- ◆ Marketing — success of campaigns and material
- ◆ Number of approved centres
- ◆ Suitability for local market
- ◆ Historical impact of other awards on the market

The other awards listed in Table 7 either have no funded substitute, for example ‘Sign Making’ awards are only provided by SASL (both SVQ and NVQ), or very few substitutes with equally low uptake. Some of these awards are likely to remain on offer, even with low uptake, to enable awarding bodies to offer a whole ‘suite’ of awards. Ultimately, awarding bodies are businesses and may decide to continue to ‘sell’ a product even if demand for it does not necessarily advocate this.

The awards in Table 7 were also checked against those awards that were funded by the Scottish Funding Council (SFC) during the financial year 2005/06. This also helps to develop an understanding of the market for these qualifications, with particular emphasis on the alternative modes of study that are being undertaken by students across Scotland. Alternative modes of study include Higher National Certificates and Diplomas, modules not leading to a Group Award, and other recognised and non-recognised awards provided by colleges. Figures 8–12 examine those awards that attract most SFC funding, showing the split between the types of award that are delivered by FE colleges.

Looking at the entire FE sector’s delivery of awards provides a deeper understanding of, and illustrates the choices made by, students and employers with regard to the level of study that is deemed appropriate for them and their current or desired status. It also gives a better view of the education market as a whole, showing how public funds are allocated across awards, highlighting the fact that National as well as Scottish awards are funded by SFC, and how well represented SVQs are in the broader sense.

Across some awards, particularly where SVQ/NVQ uptake is low, it may be the case that employers require staff to be qualified to a higher standard or that students prefer to study through college. There may be many reasons for pursuing another type of qualification, some of which may be relevant to this study of SVQ level qualifications. However, although these reasons may not provide robust answers (as there is presently no evidence to back them up) an insight into the prevailing market situation can be established.

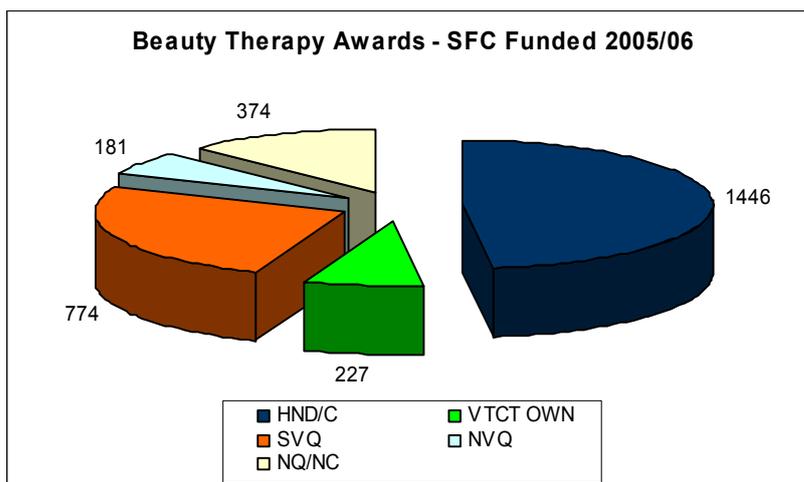


Figure 8: Beauty Therapy awards

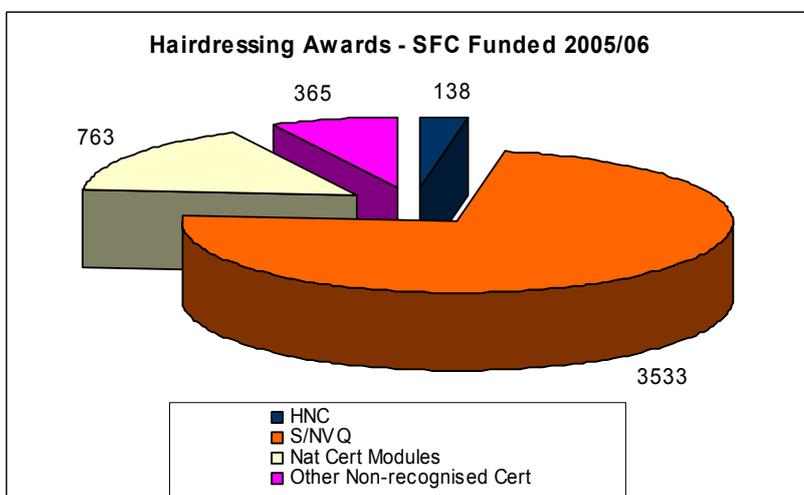


Figure 9: Hairdressing awards

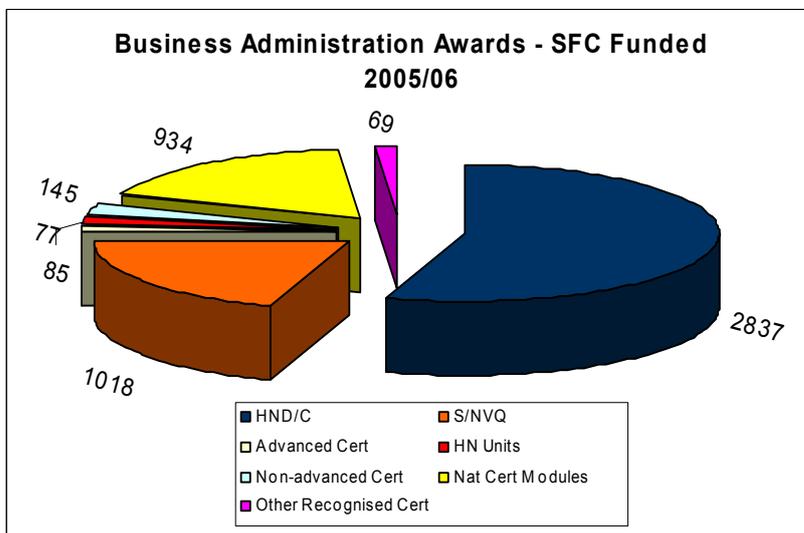
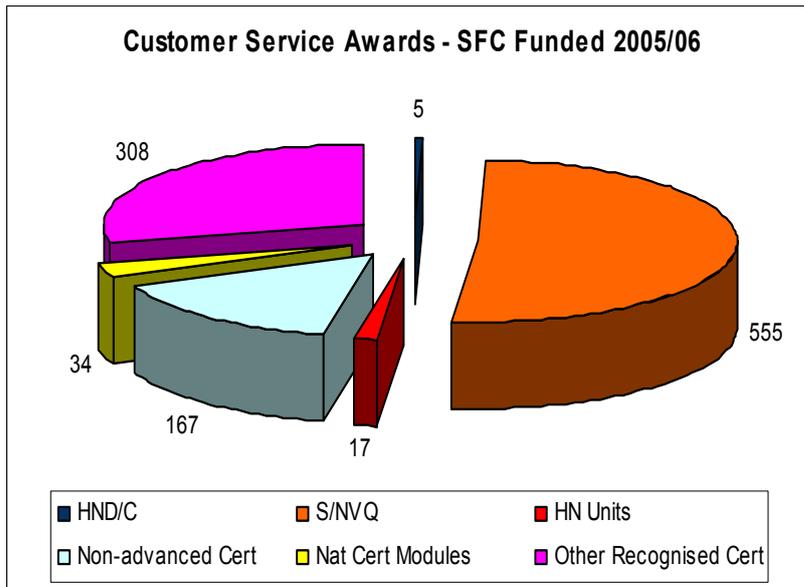
Figures 8 and 9 show the ‘Beauty’ and ‘Hairdressing’ qualifications that were financed by the Scottish Funding Council during 2005/06. As shown, the vast majority of qualifications funded in Beauty Therapy were at the HNC/HND level, which accounted for 48% of the total number of students funded. SVQs are less dominant in this market which, when comparing them with the Hairdressing awards in Figure 9 may seem like an anomaly. Hairdressing is clearly dominated by the SVQ qualification with around 74% of funding going to SVQ candidates. This may be due to a historical pattern of hairdressers traditionally learning on the job, and working their way up to qualification and seniority, as opposed to gaining their skills and learning their trade at a remote college site. There are also a large number of hairdressing salons across Scotland — both chains (multiples) and independent outlets which allow for an easy accommodation of trainees and, consequently, ample provision for on-the-job training.

Beauty therapy salons are less common and tend to be smaller, independent outlets based within hotels or run on a sole trader basis. With less scope to facilitate trainees, future beauty therapists may instead seek training from colleges with facilities to simulate working environments. This may go some way to explain the higher take-up in HNC/HND qualifications. It is also the case that the SVQ Level 3 award is

frequently used as a prerequisite for candidates wishing to complete the HNC/HND qualification, which may mean that a greater proportion of funds were channelled into the ‘SVQ level qualifications’ SFC funding in previous years.

Unfortunately, SFC data does not differentiate between awarding bodies when tracking SVQ funding provision. This means that SVQ provision levels, by awarding body, will be based on information collected from Scottish Enterprise alone.

Figures 10 and 11: Customer Services and Business Administration awards



Customer service awards are, like hairdressing, dominated by the SVQ/NVQ market. Again, this is likely to be because candidates are learning on the job in large retail outlets or with hospitality employers. High staff turnover in some of these industries (particularly in retail and hospitality) may also explain why lower level SVQs are accepted as the required standard of qualification for these sectors (awards tend to be at Levels 2 and 3 only). There are also a large number of generic college courses in customer care leading to ‘other recognised certificates’ and ‘non-advanced certificates’. It may be assumed that there are also a number of in-house programmes

which are not officially recorded, but run as part of a staff induction programme or company-specific training requirement. Customer service awards have experienced growth in uptake due to the dominance of the service sector in Scotland, with more and more employers recognising customer service training as being business-critical. Customer care awards are offered through approved centres ranging from councils to tourist boards as well as colleges. Business administration awards, on the other hand are predominantly made up of HNC/HND level qualifications (55%) with SVQ/NVQs accounting for only 20% of funded awards and National Certificate modules accounting for 19%.

This is in line with data from Scottish Enterprise where, as shown in Figure 5, only 55 SVQ Level 3 awards received funding from them in 2003–06. The HNC/HND Business Administration award typically qualifies students to enter employment at a junior management level, which may simply be seen as more desirable than the SVQ-qualified administrator level position. Again, it is difficult to explain why there is greater take-up at the HN level, and further investigation may be required to determine this.

Figure 12 shows the split of funding for awards in management. This is quite similar to the business administration picture in the previous figure with the majority of funding allocated to HNC/HND level qualifications. The SVQ/NVQ portion can be further split into levels, with the following result:

- ◆ Level 2: 5.2%
- ◆ Level 3: 57%
- ◆ Level 4: 33.8%
- ◆ Level 5: 3.9%

The majority (ie all levels excluding Level 2) of these fall into the ‘Professional Development Awards’ category and are likely to be undertaken by those, either already in a management position, or those aiming to progress to one. These broad management awards have reasonably good take-up across all levels, as shown in Figure 12. The more specific management awards such as Personnel Management and Support, Energy Management, and Team Leading have little or no take-up across the spectrum of qualifications. ILM and CIPD offer NVQ and professional qualifications (respectively), but the market is very limited otherwise.

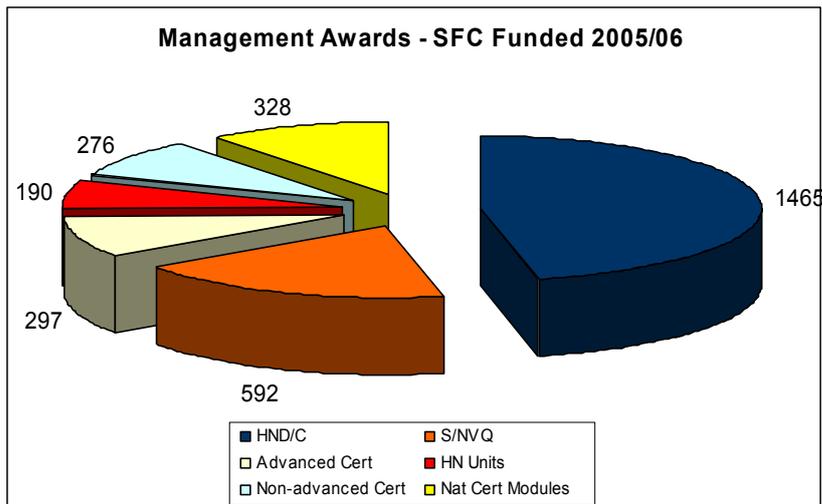


Figure 12: Management awards

The remaining awards included in Table 7 that have experienced low uptake have also been cross-referenced with SFC funding data. No funding was allocated to any awards in Fencing. In fact it seems that the Fencing award offered by Lantra may experience no competition either from alternative SVQ/NVQs or from awards offering a higher level of qualification. This indicates that there is, simply, not a great deal of demand for this award at the moment.

Sign Making, as devised by SASL, appears to be the only qualification of that type on the market. SASL also provide the NVQ award and there does not seem to be an equivalent at a higher level. Again, this indicates that, perhaps there is little demand for this award in the Scottish market, or that the award is deemed ‘not fit for purpose’ by employers.

The Glazing Installation Maintenance award is similar to Sign Making in that the Glass Qualifications Authority (GQA) is the only body who awards SVQs in this subject area. The GQA also offers NVQ qualifications and the SFC record indicates that 224 NVQs and 97 SVQs were funded during 2005/06.

Food and Drink Manufacturing Operations is also offered, at SVQ level, by SQA in partnership with Improve Ltd. These SVQs have been funded by SFC, particularly at SVQ Level 2 where 558 individuals received finance from the funding council.

Conclusion

From the small sample selected, there are various possible explanations for low uptake at SVQ level, each of which affects the selected qualifications to varying degrees. Explanations include:

- ◆ Greater uptake at HN level
- ◆ Highly competitive SVQ/NVQ market
- ◆ Low industry demand
- ◆ Alternative college awards
- ◆ Lack of awareness of specific SVQs
- ◆ Make-up of industry and access to on-the-job training

It is anticipated that, as part of the ‘extension to function’ work, the entire vocational qualifications market will be examined in greater detail as there is still some uncertainty as to which qualifications are being delivered in Scotland and by whom. With the anticipated need for a ‘Scottish Standard’ to be developed, there is a requirement for a deeper investigation into the delivery of alternative vocational qualifications, ranging from those delivered in schools to those delivered by FE colleges and private training providers. This section of the report merely skims the surface of what is happening in the market place at the moment. Further work will look across a wider range of sectors and at a greater number of the awards made available to learners in Scotland.

Appendix 1: List of current awarding bodies

Awarding Body Name	Abbreviated Name
Association of Accounting Technicians	AAT
British Horse Society	BHS
Chartered Management Institute	CMI
CIPD Awarding Body	CIPD
City & Guilds	C&G
Education Development International plc	EDI
EMTA Awards Limited	EAL
Engineering Construction Industry Training Board	ECITB
EMP Awarding Body (formerly EPIC NTO)	EMP
Glass Qualifications Authority	GQA
ILM	ILM
Institute of Revenues Rating and Valuation	IRRV
Institute of The Motor Industry	IMI
Lantra Awards Ltd	LANTRA
FDQ (formerly Meat Training Council) and Scottish Qualifications Authority	FDQ
National Proficiency Training Council	NPTC
PAA/VQSET	PAA/VQSET
Pensions Management Institute	PMI
SAMB (Awarding Body)	SAMB
Scottish Qualifications Authority	SQA
Skills Assurance Services Limited	SASL
Vocational Training Charitable Trust	VTCT
Waste Management Industry Training Advisory Board	WAMITAB

Appendix 2: Scottish Enterprise Contribution Rates 2006/07

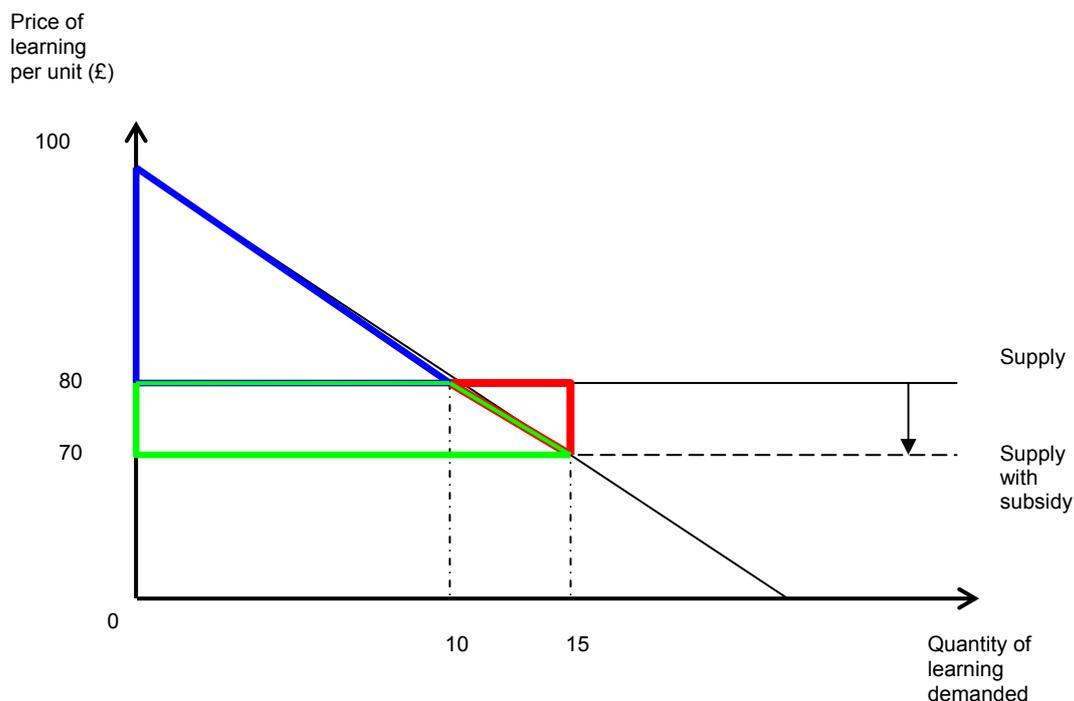
Updated 31/05/2006							
OCCUPATIONAL AREA	VO LEVEL 2		VO LEVEL 3		MA		MA
	16-18	19-24	16-18	19-24	16-18	19-24	25+
A	OBF - 25%	OBF - 50%	OBF - 25%	OBF - 50%	OBF - 25%	OBF - 40%	OBF 50%
Accounting	£3,000		£4,500	£1,500	£6,500	£3,500	£3,000
Advice and Guidance					£6,000	£3,000	
Agriculture Crops and Livestock	£3,000	£1,000	£4,500	£1,500	£6,500	£3,500	
Amenity Horticulture	£3,000	£1,000	£4,500	£1,500	£6,500	£3,500	
Animal Care	£2,500	£1,000	£4,500	£1,500	£5,500	£3,000	
Apparel, Footwear, Textiles and Associated Businesses					£6,000	£3,000	£2,500
Aquaculture	£3,000	£1,000	£4,500	£1,500	£6,500	£3,500	
Architectural Technician			£6,500	£2,000			
Audio Visual Industries					£5,500	£3,000	£2,000
Automotive - Parts & Sales					£7,000	£3,500	
Automotive - Repair & Maintenance	£3,000	£1,000	£5,000	£2,000	£7,500	£3,500	
Aviation					£6,000	£3,000	£2,500
B							
Beauty Therapy	£2,500	£1,000	£4,500	£1,500	£5,500	£3,000	
Biotechnology (Life Sciences)					£7,000	£3,500	£3,500
Broadcast, Film, Video & Multimedia					£7,000	£3,500	
Builders Merchants					£6,500	£3,500	
Business Administration	£2,500	£1,000	£4,000	£1,500	£5,000	£2,500	
C							
Catering, incl. Food and Drink service (used to be quick service)	£1,500	£1,000 - 100%OBF					
Chemical Manufacturing					£9000 -obf at 30%	£4,500	£4500 - obf at 50%
Civil Engineering	£3,000	£1,000	£6,500	£2,000			
Construction	£3,000	£1,000	£5000-obf at 50%	£2,000	£7500 -obf at 50%	£3,500 - obf at 50%	£3500 - obf at 50%
Contact Centres	£1,500	£1,000 - 100%OBF	£2,500	£2,000	£3,000	£1,000	
Craft Bakery	£3,000	£1,000	£4,500	£1,500	£6,000	£3,000	£2,500
Customer Service	£1,500	£1,000 - 100%OBF	£2,500	£1,000	£3,000	£1,000	
D							
Dental Nursing	£3,000	£1,000			£6,000	£3,000	
Dental Technician	£3,000	£1,000	£4,500	£1,500			
Driving Goods Vehicles			£4,500	£1,500	£5,500	£3,000	

E							
Early Years Care	£3,000	£1,000	£4,500	£1,500	£6,500	£3,500	£3,000
Electricity Industry					£7,000	£3,500	£3,500
Electrotechnical					£7,500	£3,500	£3500 - obf at 50%
Engineering	£3,000	£1,000	£5,500	£2,000	£9000 -obf at 30%	£4,500	£4500 - obf at 50%
Engineering Construction			£5,500	£2,000	£9000 -obf at 30%	£4,500	£4,500
Environmental Conservation					£5,500	£3,000	£2,000
Equine	£3,000	£1,000	£4,500	£1,500	£6,500	£3,500	
F							
Floristry	£2,500	£1,000	£4,500	£1,500	£5,500	£3,000	
Food and Drink Manufacturing	£3,000	£1,000	£4,500	£1,500	£6,000	£3,000	£2,500
Forecourt Operations	£2,500	£1,000					
Forestry	£3,000	£1,000	£4,500	£1,500			
Furniture Manufacturing					£7,000	£3,500	
G							
Game and Wildlife Management	£3,000	£1,000					
Gas Industry	£3,000	£1,000	£5,000	£2,000	£7,000	£3,500	£3,500
Glass Industry	£2,500	£1,000			£7,000	£3,500	
Graphic Design			£4,500	£1,500			
H							
Hairdressing, incl. Barbering	£2,500	£2,500	£4,500	£1,500	£6,000	£3,000	
Health and Social Care	£3,000	£3,000	£4,500	£1,500	£6,500	£3,500	£3,000
Heating, Ventilation & Refrigeration	£3,000	£1,000	£5,000	£2,000	£7,500	£3,500	£3500 - obf at 50%
Hospitality	£3,000	£1,000	£4,500	£1,500	£6,500	£3,500	£3,000
Housing Management					£5,500	£3,000	
I							
ICT Professional	£3,000	£1,000	£5,000	£2,000	£7,000	£3,500	£3,500
Insurance	£2,500	£1,000	£4,500	£1,500	£5,500	£3,000	£2,000
International Trade	£2,500	£1,000	£4,500	£1,500	£5,500	£3,000	
IT User	£2,500	£1,000	£4,500	£1,500	£5,500	£3,000	
L							
Laboratory Technicians	£3,000	£1,000	£5,000	£2,000	£7,000	£3,500	£3,500
Land Based Engineering					£7,000	£3,500	
Landscaping			£4,500	£1,500			
Learning and Development					£6,000	£3,000	
Lift Truck Operations	£2,500	£1,000					

M							
Mail Operations	£2,500	£1,000					
Management			£4,500	£1,500	£6,000	£3,000	£2,500
Manufacturing (other)	£3,000	£1,000	£5,000	£2,000			
Marine (deckhands, fishing)	£3,000	£1,000					
Meat and Poultry Processing	£3,000	£1,000	£4,500	£1,500	£6,000	£3,000	£2,500
Mechatronics			£5,500	£2,000			
Metals Industry					£7,000	£3,500	
Museum, Gallery and Heritage					£6,000	£3,000	
O							
Occupational Health and Safety			£4,500	£1,500	£6,500	£3,500	£3,000
Oil and Gas Processing					£9000 -obf at 30%	£4,500	£4,500
P							
Performing Manufacturing Operations	£1,500	£1,000 - 100%OBF					
Pharmacy Services			£4,500	£1,500	£6,500	£3,500	
Photography	£2,500	£1,000	£4,500	£1,500			
Plant Maintenance	£3,000	£1,000	£5,000	£2,000			
Plumbing			£5,000	£2,000	£7,500	£3,500	£5,500 - obf at 50%
Printing	£3,000	£1,000	£5,000	£2,000	£7,500	£3,500	£3,500
Procurement					£5,500	£3,000	
Polymer Processing	£3,000	£1,000	£5,500	£2,000	£8,500	£4,000	£4,000
Providing Financial Services	£2,500	£1,000			£5,500	£3,000	£2,000
R							
Rail Industry	£3,000	£1,000					
Retail	£2,500	£1,000	£4,000	£1,500	£5,000	£2,500	
S							
Sales	£2,500	£1,000			£3,000	£1,000	
Sea Fishing (Catching)					£6,000	£3,000	£2,500
Security Systems	£3,000	£1,000	£4,500	£1,500	£6,000	£3,000	
Sport and Recreation	£2,500	£1,000	£4,500	£1,500	£5,500	£3,000	
Storage and Warehousing	£2,500	£1,000	£4,500	£1,500	£6,000	£3,000	
Supply Chain Management					£9000 -obf at 30%	£4,500	£4,500 * - pilot

T							
Team Leading	£3,000	£1,000					
Telecommunications	£3,000	£1,000	£5,500	£2,000	£8,500	£4,000	
Telesales	£1,500	£1,000 - 100% OBF			£3,000	£1,000	
Textiles	£2,500	£1,000	£4,500	£1,500			
Transport Engineering and Maintenance					£7,500	£3,500	
Travel Services	£3,000	£1,000	£4,500	£1,500	£6,000	£3,000	
Trees and Timber					£5,500	£3,000	£2,000
V							
Veterinary Nursing	£3,000	£1,000	£4,500	£1,500			
W							
Water Industry					£7,500	£3,500	

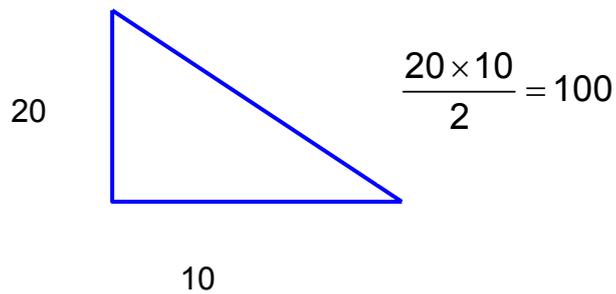
Appendix 3: Worked example of deadweight issue



The figure shows a market situation where supply is perfectly inelastic with price set at £80, regardless of quantity demanded. This is unlikely to occur in the real world, but for simplicity, we will keep this assumption for this example.

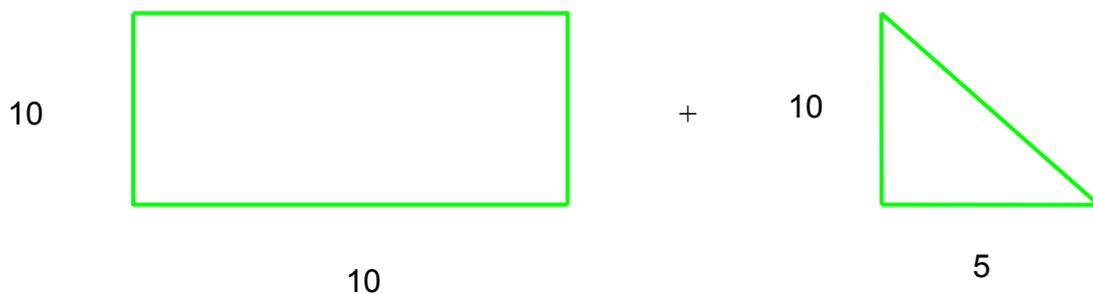
With no subsidy in place, the natural market equilibrium gives a price of £80 with a quantity of 10 units demanded. At this price and quantity, total consumer cost is £800 ($10 \times £80$). Now, because there are consumers who are willing to pay more than £80 per unit of learning — as illustrated by the demand curve (everything to the left of, or directly on, the demand curve is within the consumer budget), there is a ‘consumer surplus’. The consumer surplus is, basically, the difference between the price consumers are willing to pay and the price they actually pay.

The consumer surplus is highlighted by the blue triangle and is equal to a value of £100.



A government subsidy lowers the price that consumers have to pay and keeps the price that suppliers receive at a constant. With a subsidy of £10 per unit of learning, consumers pay £70 per unit while suppliers continue to receive £80 per unit. As shown in the figure, the subsidy shifts the supply curve down, creating a new equilibrium where price per unit is £70 and quantity demanded increases to 15 units. This may make the case that a subsidy stimulates demand for learning, but it is unclear what the ‘opportunity cost’ of doing so may be and whether or not there is a sufficiently large benefit to consumers in so doing.

At the new equilibrium, the consumer surplus increases by the green area in the figure. This area is equal to £125:



$$(10 \times 10) + \frac{10 \times 5}{2} = 125$$

This makes the total consumer surplus £100 + £125 with the subsidy in place which, at first glance, appears entirely positive. However, the crucial thing to consider when looking at the effectiveness of subsidies is whether the value of the additional consumer surplus (in this case, £125) exceeds the value of the subsidy. In order for the subsidy to be wholly beneficial, its value must be lower than the additional consumer surplus, otherwise it is rendered inefficient.

The subsidy in this example is £10 per unit sold. At the equilibrium point, the quantity demanded at the subsidised price is 15 units. This means that the government has to pay suppliers a total of $15 \times £10$, or £150.

We have already calculated that the additional consumer surplus derived from the subsidised price is £125. Therefore, there is a consumer surplus shortfall of £25, making this subsidy inefficient. The £25 shortfall is known as ‘deadweight’. This is shown in the figure in red. The subsidy is, ultimately, borne by the tax payer and if the subsidy is greater than the additional consumer surplus generated, then it is an inefficient allocation of resources. This is basically a cost–benefit analysis. If costs outweigh the benefits, why proceed? Subsidies are, generally, inefficient unless they are absolutely and specifically targeted at niche groups that genuinely require them.

As already stated in the main body of the paper, deadweight exists where there is no shift in demand as well as no new demand created or, in other words, where demand would have existed anyway. The deadweight in the figure above would not exist had the demand curve shifted to the right, therefore producing an actual increase in the quantity of learning demanded, causing the value of the subsidy to be less than the increase in consumer surplus.

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