

# Land-based industries in Scotland's colleges

September 2012

A subject aspect report by HM Inspectors on behalf of the  
Scottish Funding Council

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# 1 Introduction and methodology

## 1.1 Introduction

Her Majesty's Inspectorate of Education (HMIE) publication, *External quality arrangements for Scotland's colleges, September 2008*, specifies that HM Inspectors (HMI) will produce a number of subject aspect reports over the four years 2008-2012. These reports complement in a subject-specific context the generic evaluations of learning and teaching in HMIE and Education Scotland's reports of colleges. Education Scotland was formed on 1 July 2011 as an Executive Agency of the Scottish Government. It was created by bringing together the resources and the functions of Learning and Teaching Scotland (LTS), HMIE, the National Continuous Professional Development (CPD) Team and the Scottish Government's Positive Behaviour Team.

Colleges should act on the recommendations contained in these reports. College inspectors will monitor action towards implementation of recommendations as part of their normal dialogue with colleges. They will wish to discuss issues arising from subject aspect reports during annual engagement visits.

This aspect report evaluates current practice and identifies important areas for discussion and further development amongst practitioners. It identifies effective practice found by inspectors and sets out recommendations for improvement.

In preparing this report, inspectors visited a sample of eight colleges listed in Appendix 1, drew on the findings of published HMIE and Education Scotland external reviews of colleges, and examined other relevant publications and reports. They consulted with key stakeholders, including the Scottish Qualifications Authority (SQA) and a wide range of professional bodies.

This report evaluates college programmes within a wide range of subject areas related to supporting the land-based industries in Scotland. The main focus of this work is preparation for working in the land-based industries. The fieldwork supporting this report does not look specifically at areas that in many instances are offered for leisure or therapeutic purposes, or that have been significantly covered in other reports. For these reasons, it does not cover horticulture or agricultural engineering. In addition, some areas of work, such as aquaculture, are so small and specialised they have not been covered within the fieldwork. Programmes covered by this report are offered through a variety of modes of delivery at levels 4 to 8 of the Scottish Credit and Qualifications Framework (SCQF). The report does not evaluate degree provision, or the Higher Education (HE) provision offered within the University of the Highlands and Islands (UHI).

## **1.2 Methodology**

Each college in the sample was visited twice during the fieldwork. Inspectors observed learning and teaching and discussed issues with managers, teaching staff and learners. The views of a wide range of stakeholders were obtained through face-to-face interviews and through telephone contact. The initial visits to colleges helped to focus the discussion and areas of interest for the subsequent visits. This enabled a more detailed examination of good practice, and allowed a number of themes to be explored. For example, following the initial visits it was clear that industry links were strong, so it was important to obtain a fuller understanding of how these worked during second visits. Similarly, the initial visits raised some concerns in more than a few colleges about the wider promotion of equalities. Again, this provided inspectors with an important area for discussion with all colleges during the second visits.

A desk analysis of relevant documents relating to land-based industries was undertaken. This included a review of performance indicator (PI) information, programme information and other external reports. In addition to the evidence obtained from the eight colleges that participated in the fieldwork stage, reviewers also drew on the evaluations contained in the published college external review reports between September 2008 and May 2012.

## **2 Summary of key findings**

Land-based industries programmes in Scotland's colleges are characterised by many strengths. These strengths are grouped under four headings:

- Planning of provision;
- Learning and teaching;
- Outcomes and impact; and
- Enhancement through self-evaluation and internal review.

### **Planning of provision**

#### *Strengths*

- Colleges provide a wide range of programmes for learners and employers working in land-based industries.
- The three specialist colleges are leading work and engaging the other colleges to develop a strategy for education and training in the land-based industries in Scotland.
- Almost all full-time programmes contain a significant element of practical work experience.
- All colleges have very good and effective links with industry.

#### *However:*

- Learners in many areas of Scotland are unable to enrol on specialised programmes without having to leave home and live near the specialist colleges.
- Professional bodies in the land-based industries do not always give recognition to SQA-assessed units as equivalents to those awarded by other awarding bodies. This leads to a situation where many learners have to take an additional qualification, often at their own expense, to ensure they are employable.

### **Learning and teaching**

#### *Strengths*

- Good links with industry and a clear understanding of the requirements of the workplace help staff to plan appropriate learning in all colleges. College managers and staff take account of national developments in education to

help plan and deliver programmes and activities that equip learners well for the future.

- Many colleges have made significant investment in specialised facilities, equipment and resources. These facilities have been developed with a strong level of cooperation and coordination amongst the colleges to ensure that there is no unnecessary duplication.
- In almost all programmes, applicants undertake an assessment at the applications stage, which helps staff gauge applicants' genuine interest in the subject area, and their intention to work in that subject area.
- Almost all programme teams are familiar with the principles of Curriculum for Excellence, and take account of this in their planning and delivery.
- Information and communications technology (ICT) is used well by staff in almost all programmes. Virtual Learning Environments (VLE) are used well to support learning through making notes available, setting tasks, providing extension materials and having interactive activities available for use.

*However:*

- Through their teaching materials and class discussions, teaching staff seldom promote equality and diversity sufficiently.
- There are a number of subject areas that are dominated by one gender.

## **Outcomes and impact**

*Strengths*

- In all colleges early retention and student retention rates are high.
- Attainment rates are high. The trend over the last three years has been an increasing trend, moving from 81% to 85% for full-time FE learners and 83% to 90% for part-time FE learners.
- Learners gain useful employability skills
- Almost all learners make very good progress moving to higher level programmes or into work which is directly related to their college programme.

*However:*

- Tracking learners' progression to university is informal and anecdotal.

## Enhancement through self-evaluation and internal review

### Strengths

- The process of self-evaluation and internal review in all colleges is well embedded, and a well-established annual cycle of activity is in place to reflect on improvement.
- Learner and employer contributions play a significant role in this internal review process, which has helped focus the work experiences within programmes to ensure better preparation for work. All teaching staff contribute well in this process, and actively encourage and use feedback from learners to bring about further improvement.
- In more than a few colleges, there is a system where lower performing programmes are designated *at risk* or *within special measures*, allowing a greater management focus on resourcing and supporting improvement. Where these programmes are given additional attention, the majority improve quickly.

### However:

- Links with universities tend to be informal, and their lack of involvement in programme review is a missed opportunity to gain useful feedback which may help improve provision and inform future developments.

### 3 Background and context

Over the period of the fieldwork for this report, discussions were progressing to approve the three specialist land-based colleges coming together with the Scottish Agricultural College (SAC) to establish one key strategic education and training provider for land-based industries in Scotland. As part of this process, significant research was undertaken by Oxford Economics<sup>1</sup> around demand and the requirements of the industry. This research confirmed the growing demand for skilled labour and the benefits of working together in a more coordinated way.

The Scottish Government has also been aware of land-based industries as an important strategic area for economic development. In the Scottish Government publication *Getting the best from our land: a land use strategy for Scotland*, Scottish Government highlight the need for sustainability as a priority, and express a clear view that growing numbers of people will use and enjoy the land. The first of the three key objectives of this strategy is *land-based businesses working with nature to contribute more to Scotland's prosperity*.

The main focus of this aspect report is the 17 categories of land-based activity defined by *Lantra*, the sector skills council for land-based industries. These are: agricultural crops; agricultural livestock; animal care; animal technology; aquaculture; environmental conservation; equine; farriery; fencing; fisheries management; floristry; game and wildlife management; land-based engineering; landscaping; production horticulture; trees and timber; and veterinary nursing.

Government statistics, the Oxford Economics report and *Lantra*<sup>2</sup> documentation all identify growth in employment related to land-based industries for the foreseeable future. The current view of *Lantra*, is that there are 121,500 people employed within 23,800 land-based businesses in Scotland. *Lantra* is predicting that in the ten years from 2010–2020, land-based industries in Scotland will need 12,000 more people. The sector is heavily dominated by micro-businesses with 96% of businesses having a workforce of ten staff or fewer.

The profile of people working in the sector varies in a number of ways from the normal patterns of employment. *Lantra*<sup>3</sup> suggests that UK wide, 68% are male, which compares with 53% in all industries. 22% of those employed in land-based industries are in the age range 55-64, compared with 14% in all other industries. In addition, 12% of those employed in the UK land-based industries are non-UK nationals, with this figure excluding seasonal workers. This profile indicates a sector with a need for a high number of skilled workers in the next ten years, and a challenge to ensure that those involved in education and training are more representative of the wider working population.

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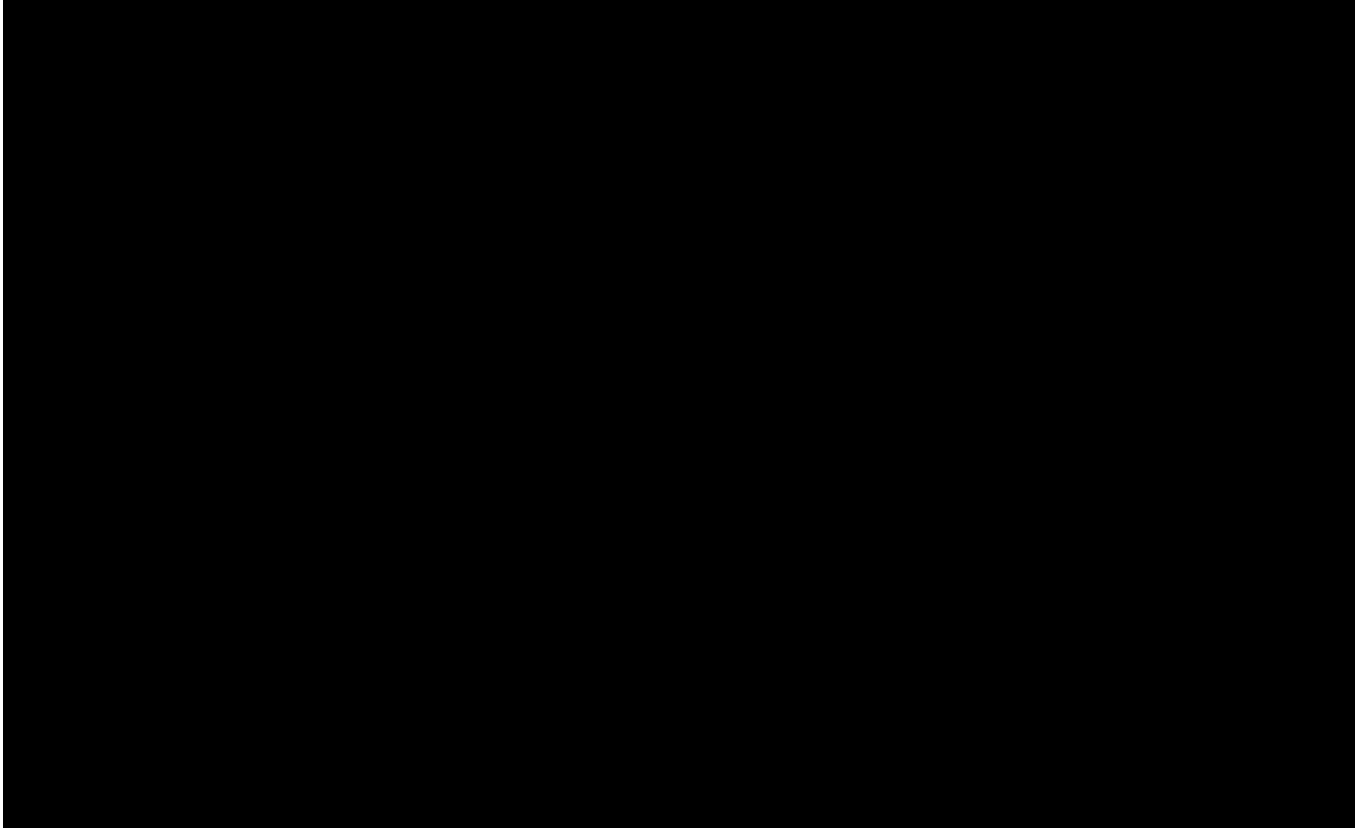
<sup>1</sup> Oxford Economics Scotland's land based colleges; skills requirement forecasting May 2011

<sup>2</sup> *Lantra* Scotland Factsheet 2010/11

<sup>3</sup> *Lantra* UK Skills assessment 2010/2011



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*Learners from Oatridge College preparing for an agricultural show*

## 4 Programmes supporting land-based industries

### 4.1 Range of provision

Colleges provide a wide range of programmes for learners and employers working in land-based industries. Programmes within colleges are available at a range of levels, from SCQF level 4 to SCQF level 8. In the north of the country, HE programmes are offered through the UHI, although these programmes do not fall within the scope of this report. In addition to the widespread use of SQA qualifications, there is a number of specialised areas where other qualifications are offered. These include specialised provision such as pesticide spraying, horse riding, and safe use of chainsaws. Employers are broadly aware of the qualifications and programmes available. However, their prime interest lies with the skills developed by learners.

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*The practical design and construction of an allotment at Elmwood College*

Programmes in land-based industries are offered in over half the colleges in Scotland. For most, it is a very small proportion of their curriculum, and they generally provide for one or two specialist areas, such as, animal care or horticulture. However, over half of the activity for land-based provision is accounted for by three specialist colleges offering programmes that often require highly-specialised equipment and resources. These three colleges have been working closely over recent years and have developed this formally into a project called *Going Further*. The work on *Going Further* and the work towards merger has helped them become increasingly familiar with the national picture of provision. The three specialist colleges are leading work and engaging the other colleges to

develop strategy for education and training in the land-based industries in Scotland. This work builds on the extensive research commissioned through Oxford Economics which helped to identify need and trends in the industries. A strategy, with all key partners involved in its development, is likely to provide a sound basis for planning provision in the future. It aims to encourage a national approach and minimise the risk of duplication or competition. It will also help to identify new areas of work and help this to be planned and delivered in a cooperative way.

One of the challenges for learners in pursuing a programme related to land-based activity is the unusual geographical spread of locations of colleges. Learners in many areas of Scotland find it difficult to enrol on specialised programmes without having to leave home. It also means that those in employment looking to do short updating programmes face a challenge finding suitable provision within a practical travelling distance.

## **4.2 Programme design**

Programmes are developing to meet the demands of employers, reflect employment trends, and take account of the changing social and cultural norms. Employers have influenced colleges to ensure that almost all full-time programmes contain a significant element of practical work experience. Colleges have responded well and almost all specialised programmes have a structured work experience element. This work experience helps learners to develop practical skills as well as helping to nurture contacts within the industry. General employment trends are pushing towards greater use of technology in the workplace, and all full-time programmes actively promote the use of new technology and modern equipment. Social and cultural norms have driven the industry towards a more sustainable approach to working, and this is a major feature of the planning and delivery of most full-time programmes.

## **4.3 Industry links**

All colleges have very good and effective links with industry. There are two main strands to this: the direct links with employers; and the wider links with industry bodies. Both of these sets of links benefit the learner through improved programme design, and through developing personal and professional contacts.

Links with employer organisations are many and varied. *Lantra* is the sector skills council for land-based industries, and college links with them are strong. For example, *Lantra* awards are a major event in the college calendars, and are given a high level of publicity in colleges. These awards are given to outstanding learners in the industry, and are presented at well-publicised national events. There is, in addition, a very wide range of other industry bodies that have direct relevance to specific programmes. Contact with these bodies is also effective.

## **North Highland College**

### ***Wild Deer Best Practice Event, organised by Scottish Natural Heritage:***

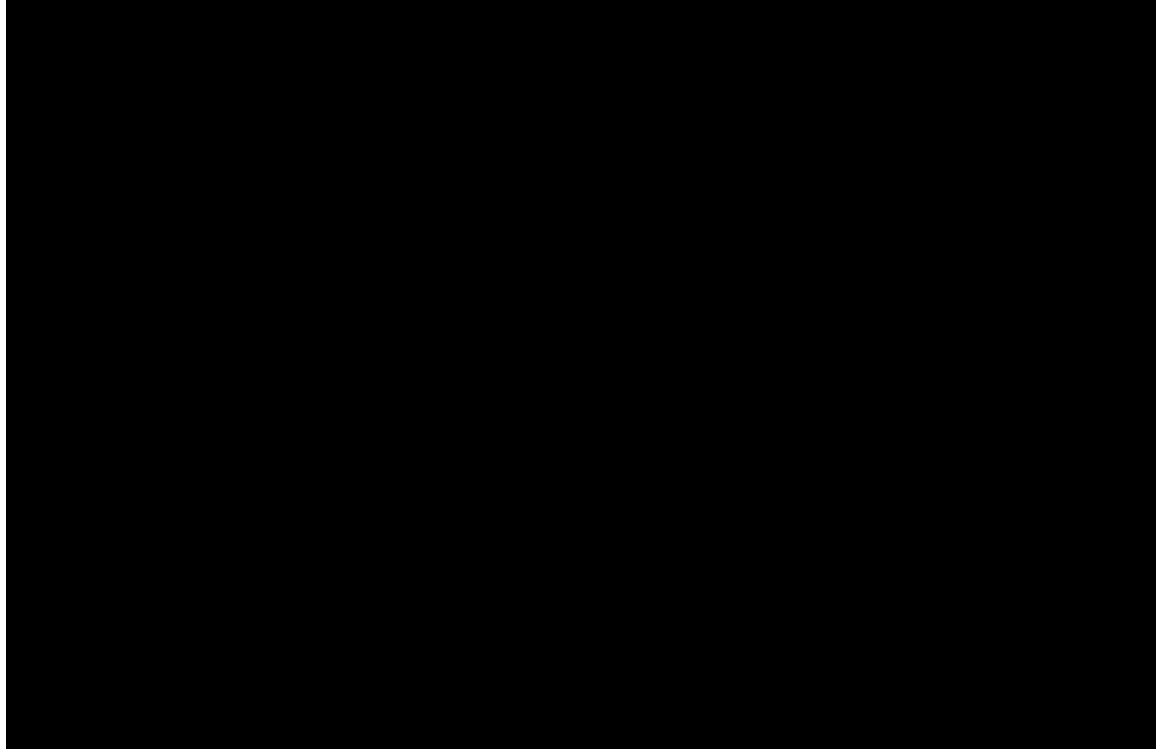
*The college's participation in the Wild Deer Best Practice Event at Balmoral Castle is a good example of enhancement of the learning experience. The purpose of this event is to promote best practice to anyone involved in deer management. The college has successfully managed to secure a dedicated day at this event to include Scotland's colleges' game-keeping learners.*

*Involvement in this event has been motivating for learners. Participation of all game-keeping learning providers at the event strengthens the partnership of the game-keeping colleges. The event also enables learners and current industry staff from different backgrounds to come together and share their learning experiences.*

*Learners are exposed to the challenges which the deer industry is facing at the moment and they are able to see the new skills which deer managers will require. Learners make a direct link to the attributes likely to be desirable in the recruitment process for a gamekeeper. Learners receive the latest information and coaching at the same time as industry professionals. This means that any changes and developments that the placement providers implement can be part of the learning experience and the rationale for change is easily understood by all involved. Having the opportunity to engage with a range of experts helps learners to develop essential skills and maintain an ethos of professionalism.*

Links with employers have developed for a number of reasons and in a number of ways. For example, many agriculture programmes need access to real working environments to undertake tasks such as improving drainage. Links with landowners ensure that this work can be done in a realistic environment. In addition, links with bigger national employers often lead to arrangements that enable learners to work on modern agricultural machinery, such as the arrangements made by one college with a major farm machinery manufacturer. These links with employers can also lead to the development and delivery of realistic projects in areas such as landscaping.

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*Tractors at Barony College made available through an employer*

## **Oatridge College**

### ***Arrangements for realistic landscaping tasks:***

*Staff within the landscaping department have built up a number of working relationships between local employers and learners. Learners regularly visit premises, receive talks from professionals and take part in practical activities and real work experiences for these employers. Tasks and assignments that are very practical and typical of the workplace are given to groups of learners, and real project experience is provided, often working with local community organisations or employers. These tasks are given as formal briefs in the same style as an employer or someone commissioning work. This creates a realistic customer and provider experience for the learners.*

*These tasks and the relationships developed greatly enhance the experience and aspirations of learners. Learners develop a high level of employability skills through a curriculum designed to take account of the needs of local employers. Working in real-life situations encourages a clearer understanding of the skills needed in a working environment and the challenges in applying those skills.*

*Former learners with successful businesses return to the college to share their experience with current learners. College links with employers are strong and very effective. Staff also regularly attend employer networking and social events to develop relationships further. Learners regularly take part in skills demonstrations and competitions to showcase their skills and to market their industry experience.*

*The practical work experience helps ensure learners are well prepared for work, have a portfolio of experience and a network of contacts in the industry.*

Links with industry also extend well to the design and delivery of short programmes, or programmes which provide professional updating. In most colleges, specific staff are tasked with keeping contact with industry to ensure training requirements are identified and met. For example, in one college the role of *Rural Development Officer* has been established. This role provides time and a structure for contact with local and regional employers to identify need and plan provision.

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*Learner studying forestry at Inverness College*

There is a wide range of employers and employer organisations involved in land-based work. Overall, almost all industry organisations confirm that the geographical spread across Scotland, levels of provision and quality of provision are good or very good. They confirm that they have good opportunities to keep in touch with the work of colleges and are often consulted on provision. However, more than a few organisations felt that more work experience within programmes would be helpful to prepare learners for employment.

Specific concerns relate to a few subject areas, primarily from industry bodies with a specific interest in that area of work. In veterinary nursing, there are limited college places available in some areas in the north of the country. In Scotland, there are relatively few veterinary nurses compared to the number of veterinary surgeons, suggesting there may be unmet demand for programmes in veterinary nursing. In equine studies, it is often difficult for the high number of potential learners in the Glasgow area to access provision. Agricultural engineering is difficult to access, recognising that it is an area where expensive and highly-specialised equipment is needed.

#### 4.4 Qualifications

The SQA develops, validates and maintains industry-specific qualifications and is the main provider of land-based qualifications used by colleges. However, a few programmes are routinely supplemented by the use of additional qualifications to meet legal requirements or agreed industry standards. These qualifications are awarded by professional or other awarding bodies.

For example, riding schools often want employees to have British Horse Society (BHS) qualifications and recognition. Equine programmes built around SQA qualifications often cover this work relating to riding, but BHS does not recognise or provide credit transfer for SQA units even when they cover the same work. Similarly, the SQA units in pesticide application are not recognised as equivalent to the National Proficiency Test Council (NPTC) industry qualification, now certificated by City and Guilds, to meet the legal requirement for a recognised qualification. Such certificates are needed for employment. Where the other awarding body does not recognise the achievement of the SQA units, learners have to take an additional qualification, often at their own expense, to ensure they are employable. In subject areas such as pesticide applications or chainsaw use, learners are very unlikely to be employed without these additional certificates. This leads to a difficulty in time and cost for learners to undertake additional assessments.

Colleges also make judgements about the use of SQA qualifications if the area of work is one where learners are likely to search for employment anywhere in the UK. For example, the Edexcel BTEC Extended Diploma in Land-Based Technology is offered in one college so that learners can have a suitable qualification that is easily recognised anywhere in the UK. However, recognising these exceptions, SQA is still the main provider of qualifications for the land-based colleges in Scotland.

The SQA works with the land-based industries to develop and maintain industry-specific qualifications and support the updating of qualifications. New additional national qualifications group awards are being developed during 2012 in subject areas such as horticulture, agriculture and greenkeeping. In some of the more specialised land-based areas, uptake is low. In the current economic climate, this creates an ongoing challenge for colleges and SQA to commit resources for new developments. Partnership working is, therefore, more important than ever in developing and maintaining qualifications. Staff within colleges are active in SQA groups, and many are heavily involved in writing and developing new qualifications. This has the benefit of ensuring college staff are often very familiar with SQA processes and procedures in their subject area.



## 5 Learning and teaching

### 5.1 Planning of provision

A clear understanding of the requirements of the workplace helps staff to plan appropriate learning in all colleges. College managers and staff take account of national developments in education to help plan and deliver programmes and activities that equip learners well for the future. Full account is taken in all colleges of the needs of industry and of employment trends. Colleges support work-based learning and provide some programmes on an outreach basis. In these circumstances, colleges are aware of the health and safety implications and their responsibility in ensuring a safe working environment. In all colleges, the full portfolio of programmes is subject to annual internal review. This helps to ensure the provision is appropriate and that any changes that can improve the learning are fully considered.

Many colleges have made significant investment in specialised facilities, equipment and resources. For example, the Scottish National Equestrian Centre (SNEC) at Oatridge College is used well as a learning and teaching resource. It is a high-profile centre which provides excellent facilities for learners, and it is used for a range of activities to link with industry and the community. Similarly, the Dairy Technology Centre at Barony College serves a highly-specialised need. These facilities have been developed with a strong level of cooperation and coordination amongst the colleges to ensure that there is no unnecessary duplication.

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*A 'musical ride' at the SNEC at Oatridge College*

## 5.2 Entry and progression from prior learning

In most of the colleges visited, the entry arrangements for land-based programmes are rigorous. Applicants undertake an assessment which helps staff gauge learners' interest in the subject area, and their intention to work in that area. The strongest examples are in programmes, such as game-keeping, equine studies and agriculture. The methods that staff use to judge applicants' prior knowledge of and interest in the vocational area vary by programme. They include tasks such as identification of wildlife for game-keeping, sending in a video of the applicant riding a horse for equine studies, or doing a tool recognition task for agriculture. These methods are applied and used to make final judgements, even where applicants have already attained the full range of standard entry qualifications. This approach is highly effective in ensuring that interested and motivated learners enter a programme appropriate to their needs and interests.

### **Borders College**

#### ***Recruitment and selection of learners:***

*Within land-based programmes at Borders College, there is a thorough approach to the recruitment and selection of learners. This ensures that those accepted onto a programme are most likely to be interested, to understand what the programme involves, to benefit from the programme and to succeed.*

*The selection process involves practical activities related to the programme to test an applicant's interest and abilities. This would include, for example, riding tests or tool identification tasks. The interview process is well structured, and has a structured and scored set of questions designed to give an insight into the applicant's vocational knowledge and intentions. Areas of questioning include aptitude, skills and experience, employability, long-term careers plans and motivation to succeed. The responses are scored on a five-point scale, and give staff a clear indication of learners with a genuine and long-term interest in the subject area.*

*This process helps to ensure that groups of learners fully understand the rigours of the work and have a clear view that their college programme is a route to a career. The very high retention and attainment rates reflect that this focus on understanding the interest and prior knowledge of the applicant in the vocational area is effective.*

Most programme teams take some account of equality and diversity in their planning. The majority of colleges use gender balanced and mixed images within their wider college publicity and promotional work. However, through their teaching materials and class discussions, teaching staff seldom promote equality and diversity sufficiently.

Some subject areas are dominated in college programmes by one gender. The statistics highlighted in Appendix 4 show that entry to these programmes is not

gender balanced and over the last four years there has been no noticeable change in profile. In most of the subject areas dominated by one gender, there are rarely examples used in class that challenge the traditional stereotypes. Further work needs to be done by colleges, staff and stakeholders in some subject areas to challenge stereotypes and promote equality, diversity and inclusiveness more widely.

The ethnic and nationality mix of learners in colleges is not consistent with either the people employed in land-based industries or the wider population. The statistics in Appendix 5 show that 95.2% of those enrolled in land-based programmes in Scotland's colleges are white British, yet *Lantra* statistics suggest, for example, that 12% of those employed in land-based work are non-UK nationals. This suggests that the profile of college learners does not reflect the diversity of the industry.

In almost all programmes, planning takes full account of opportunities for progression. Programmes are offered to school groups in a number of colleges to help raise awareness of, and interest in, the land-based industries. Young people are encouraged to consider work and a career in land-based industries through a well-designed Skills for Work programme. This gives young people some experience of the practical work environment. Over recent years, the number of places on Skills for Work programmes has reduced.

Almost all programme teams are familiar with the principles of Curriculum for Excellence and take account of these in their planning and delivery. The common use of independent research activities and groupwork fits well with the broad aims of Curriculum for Excellence. Activities within programmes are often designed to promote health and wellbeing. Planning and provision of land-based programmes with local schools in almost all colleges is beginning to take account of the need for a more coordinated senior phase for young people.

### **5.3 Use of ICT and other resources**

Staff use ICT well in almost all programmes. The majority of colleges have well-developed VLEs in place, and the primary use is to support learners. In some instances, ICT is used to deliver programmes entirely at a distance, such as HNC Golf Management at Elmwood College. This approach enables programmes to be offered both nationally and internationally. VLEs are used well by staff and learners to support learning, through making notes available, setting tasks, providing extension materials and having interactive activities available for use. Industry standard software and technology is available in specialist areas. This is important in areas such as animal production, crop production or forestry where familiarisation with industry standard software is essential to support employability skills.

## Angus College

### ***Using ICT to enhance the learner experience in animal care programmes:***

*To enhance learner engagement and theoretical knowledge within the animal care curriculum, Angus College has developed a combined suite of innovative online learning approaches. The approaches developed include the creation of a learner blog site called Not rocket surgery; the use of animal care Facebook pages; and the development of electronic sixty-second revision bites.*

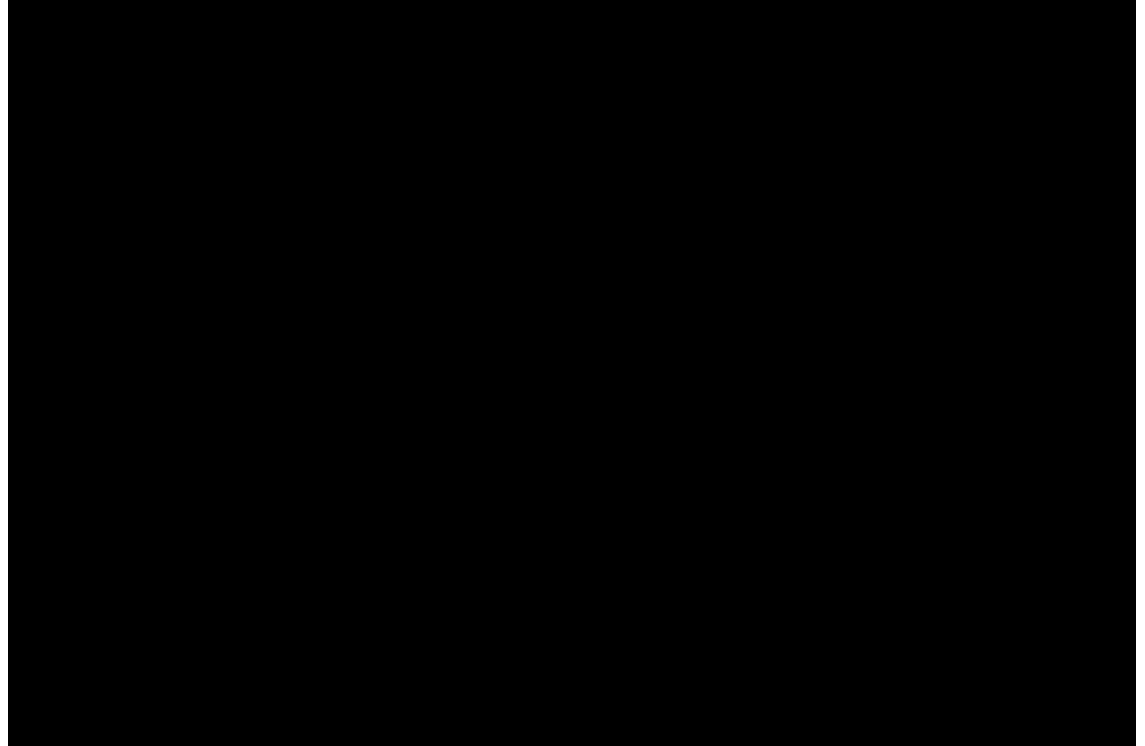
*Not rocket surgery provides short snippets of information on programme-related topics which can be read and digested in two to three minutes. It is designed to look low-tech and simple. The Facebook page is an exercise in bonding with learners by using a facility with which most are already familiar, and has around 170 users amongst the learner cohort. The site is used to post formal programme information such as assessment deadlines, but is also used to inform learners of things that are happening within the animal care curriculum. Sixty Second Revision Bites are a short, sharp way to help learners with revision by emailing single questions that will only take sixty seconds to think about and answer by return email.*

*This use of ICT encourages learner to use technology for learning that they are currently using for social purposes. It extends the time that they make available to work on college topics, and helps learners who prefer more interactive learning. This flexibility also provides extra time for revision for the slower learner, and extension opportunities for the faster learners.*

*The ICT applications have been designed to meet learner needs through the recognition of the work that learners found most challenging. This responsiveness to learner feedback motivates learners, and gives them a strong sense of shaping their own learning.*

Almost all colleges have excellent resources for specialist programmes. Specialist buildings and resources across the colleges, such as the fish farm at one college and a professional standard golf course at another are invaluable national resources which give learners a very positive and practical experience. The specialist programmes also have very good links with industry that help to ensure that learners have access to modern and specialist machinery such as tractors, harvesters and quad bikes.

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*Gamekeepers in training at Elmwood College*

## **Edinburgh's Telford College**

### ***Use of ICT to support placements in veterinary nursing:***

*All those involved in curriculum delivery and supporting learners including teaching staff, nurse tutors, verifiers and clinical coaches, work closely together as a team to maximise the learner experience and to ensure all aspects of the programmes are well planned and fully integrated. This has resulted in an integrated approach to delivery and assessment, including arrangements with veterinary practices and clinical coaches. ICT has been helpful in establishing this work.*

*Practice staff supporting learners whilst on placement are fully integrated as part of the delivery team and are clear about which elements of the programme they are responsible for and how this relates to the college delivered elements of the programme. They are also well informed about the broader progress of learners in addition to learner progress with tasks in the online Nursing Progress Log. In full-time and part-time provision there is effective integration of theory and practice between college and work placement. This is enhanced by blended learning and the use of the college VLE. Learners make good use of the college VLE whilst on placement to support their progress with course work. The college VLE is also used to facilitate contact between learning development tutors and learners, including part-time learners.*

*The VLE also supports a broad range of materials for learners including specific and general information and news. Staff and learners make good use of ICT in classroom activities to support and enhance learning. Learners on these programmes appreciate and value the support available through the VLE and are developing as independent learners.*

## **6 Outcomes and impact**

### **6.1 Retention and attainment**

Early retention and student retention rates are high in all colleges. They are amongst the highest when compared with other subject areas. Most learners engaged in land-based programmes are part-time FE learners. In 2010-11, the early retention rate was 98% while the student retention rate was 97%. Many of the learners in this group are employed and have a strong motivation to remain at college and succeed. The full-time FE activity also compares well with other subjects. In 2010-11, the early retention rate was 89% while the student retention rate was 82%. Retention rates have been consistently high over the last three years. HE programmes, which account for 17% of the delivery, are similarly positive.

Attainment rates are high. The trend over the last three years has been an increasing trend, moving from 81% to 85% for full-time FE learners and 83% to 90% for part-time FE learners. All colleges have a good knowledge of the few programmes that have difficulties in retention and attainment, and have identified or taken effective action to work towards improvement. HE programmes have high attainment rates overall. However, in some specific areas HE attainment is low.

Major factors that contribute to the positive retention and attainment figures are: sound recruitment processes; effective learner support; and practical and varied learning experiences. A summary of the last three years of Performance Indicator (PI) information is in Appendix 3 of this report.

### **6.2 Wider achievement**

Programmes in the land-based industries focus strongly on developing the employability skills of learners. There is a high level of activity aimed at raising the wider employability skills needed to succeed in the programme and to thrive in employment. Almost all learners develop confidence and a sound knowledge of the work environment. The inclusion of work experience in almost all programmes also ensures that learners are developing personal and professional contacts in their chosen area of study. Work experience, work placement and voluntary work are used effectively by learners to develop skills and confidence in job search. In most programmes, learners are encouraged or required to find their own placements, and to negotiate arrangements with the host organisation. This helps to develop their confidence and skills in job search.

## **Oatridge College**

### ***Christmas Show in equine studies:***

*A Christmas Show is organised at Oatridge College by the equine learners, aimed at giving them wider practical experience and enhancing their employability. All 93 equine learners were involved in the last Christmas Show.*

*The work and benefits start before the event as the event planning activity is used by the HND Equine programme as an assessment within the Managing an Event unit. This encourages teamwork and gives learners a very practical and realistic environment. In planning the day, HND learners take account of the levels of skills and ability of all learners involved, the learning to date and the need to promote and encourage a positive atmosphere of team work and achievement. Learners are at the centre of the planning and the activities are designed to develop successful learners, confident individuals, responsible citizens and effective contributors.*

*Learners from a range of equine programmes take on the detailed organisation of specific activities on the day. Some of learners compete, whilst others take on roles such as marshalling. Activities such as riding, quizzes, competitions and demonstrations involve high levels of planning, teamwork and technical skills to support their successful delivery.*

*These activities encourage teamwork and independence, and ensure the highest levels of active learning. There is a strong focus on skills development, and the wider employability skills needed by learners. The activities and tasks are demanding for learners and promote a sense of achievement and confidence.*



Core skills screening is applied in all colleges for full-time learners to help to ensure an understanding of their prior learning. The core skills of *communication, numeracy and working with others* are developed well and in appropriate contexts. Learners reflect upon these core skills to recognise their progress. The recruitment, induction and guidance processes ensure that full-time learners understand the value of developing these core skills.

Full-time learners further develop skills for life through the range of activities and topics within their programmes. They are actively involved in planning activities and in teamwork. Programmes often provide opportunities to explore areas such as health and wellbeing. Class group or college-wide activities regularly involve learners in doing voluntary work within their local community, further enhancing their citizenship skills. For example, in one college, learners are actively involved in planting out garden areas or communal areas, such as roundabouts, for community benefit. In another college, animal care learners do voluntary work with a donkey sanctuary. Examples such as this enable the development of practical skills and the wider reflection on community benefit.

## **Elmwood College**

### ***Partnership working with Fife Society for the Blind and Skiffington Trust:***

*Elmwood College has worked with the Fife Society for the Blind in developing a sensory garden for people with sensory impairment. With funding secured from the Skiffington Trust, staff from Elmwood's horticultural department led the project from design through to the finished article. In a typical week there were 120 learners from five different curricular areas working on the garden. Learners were given the experience of working on a project with a real client brief and real deadlines. The process of design and construction required a great deal of teamwork. Learners took pride in their achievements and gained confidence.*

*The sensory garden provides a sensory experience for blind and partially sighted people. In addition, it provides an educational and training opportunity to horticultural learners and raises awareness about the benefits of horticultural therapy.*

*Staff used the opportunity to raise awareness and understanding of the issues around blindness. The project was used within learning and assessment, and encouraged learners to have a more rounded view of the planning, coordination and impact of their work.*

*The garden was opened by Gordon Brown MP with high levels of publicity, giving learners a sense of achievement in the work. Further similar projects are being planned to ensure similar benefits for future learners.*

Almost all programmes are designed to ensure that learners develop independent learning skills. Teaching staff work with learners to ensure that they build a level of confidence and skills, particularly in their use of ICT, to develop further skills for working in teams. Learners use equipment and materials that are of high quality and industry standard. They gain confidence by using appropriate and modern equipment to develop their vocational skills.

In many full-time and part-time programmes, learners have opportunities to enhance SQA qualifications through further accreditation from professional bodies. Although the entry and assessment for the additional award is not covered by any credit transfer agreement, learners or colleges often fund this from their own resources. This can be a challenge for many learners who find the cost difficult to meet. In spite of this, there is a very high uptake of these additional qualifications, which strongly enhances learners' employability skills.

### **6.3 Progression to work and further study**

Almost all learners make very good progress moving to higher level programmes or into work which is directly related to their college programme. The practical activities and the work experience within programmes help learners to plan for the particular types of work or the specific employment they are seeking. Work placement arrangements and college contacts often lead directly to employment. In specialist subject areas such as game-keeping, placement and contact with college staff often leads to employers using these links within their recruitment process.

Learners who progress to HN programmes or to degree programmes are well prepared for the next stage. The specialist land-based provision leads many learners to study with the Scottish Agricultural College (SAC). This is a well-established progression route, and strong, long-term links between staff at SAC and colleges have helped ensure appropriate transition arrangements. Almost all learners progressing into SAC from colleges are successful in their SAC programmes. For many learners within UHI colleges, links are strong and there are clear and practical progression routes. Learners from all colleges also move on to other universities undertaking study in areas, such as, science. However, tracking of learners into these other university programmes is informal and anecdotal, missing an opportunity to gain useful feedback which may help improve provision and inform future developments.

## 7 Enhancement through self-evaluation and internal review

The process of self-evaluation and internal review in all colleges is well embedded, and a well-established annual cycle of activity is in place to reflect on improvement. Within all colleges, staff and managers work together well to review programmes, change the curriculum portfolio, and take action to enhance the quality of provision. Learner and employer contributions play a significant role in this process, which has helped to improve the experiences within programmes to ensure better preparation for work. All teaching staff contribute well to internal review processes and actively encourage feedback from learners. In the majority of colleges, support staff who have a direct support role with learners, such as technicians or instructors, also contribute to self-evaluation.

Class representatives are involved in almost all programme review activities for full-time programmes. Class groups give feedback to staff following activities such as projects or work placement. Individual learners provide feedback on their programme to staff informally, and more formally through the periodic guidance meetings. Learners generally report a high level of confidence that their views are sought and used, and are often able to give examples of where this has led to improvement. However, a few learners who provide feedback are not clear about what action, if any, has resulted.

The annual review process takes account of PI data as well as reflections upon the learner feedback and staff views. The focus on PI data has, in more than a few colleges, led to a system where lower performing programmes are designated *at risk* or *within special measures*, allowing a greater management focus on resourcing and supporting improvement. Where these programmes are given additional attention, the majority improve quickly.

Staff and learners have very strong links with industry, and often include ideas within the internal review process to ensure that programmes are relevant and related to current employment practice. The involvement of employers further ensures the relevance of the content and prepares learners better for success at the next stage. However, links with universities tend to be very informal, and their lack of involvement in programme review is a missed opportunity for gathering further ideas for improvement.

Most staff engage in team teaching. They use the opportunity of working together in planning or teaching to share good practice and learn from each other. In addition, the real work experiences offered in programmes such as countryside management often involve staff and learners working alongside full-time employees. This is also taken as an opportunity to observe and learn from current or leading practice. The sharing of good practice and the strong self-evaluation processes have contributed well to improve learner success over recent years.

## 8 Recommendations

SFC should:

- continue to encourage and support the work of planning provision around a national strategy for education and training in the land-based industries in Scotland.

Colleges should:

- further develop the approach to planning land-based provision around a national strategy for education and training in the land-based industries in Scotland;
- ensure that tracking of learner progression is systematic and sufficiently robust to support self-evaluation and improvement;
- further promote equality of opportunity in developing and delivering programmes of study, working with partners and other stakeholders as appropriate; and
- review the arrangements for certification in areas where learners frequently require to take additional assessments.

Education Scotland should:

- continue to monitor the progress made by colleges in taking forward the recommendations within this report.

## Appendix 1

### Colleges involved in the fieldwork:

Angus College

Barony College

Borders College

Edinburgh's Telford College

Elmwood College

Inverness College

North Highland College

Oatridge College

## Appendix 2

### Glossary of terms

BHS	British Horse Society
CPD	Continuous Professional Development
FE	Further Education
HE	Higher Education
HMI	Her Majesty's Inspectors
HMIE	Her Majesty's Inspectorate of Education
HN	Higher National
HNC	Higher National Certificate
HND	Higher National Diploma
ICT	Information and Communications Technology
LTS	Learning and Teaching Scotland
NC	National Certificate
NFU	National Farmers Union
NPTC	National Proficiency Test Council
PI	Performance Indicator
SAC	Scottish Agricultural College
SCQF	Scottish Credit and Qualifications Framework
SFC	Scottish Funding Council
SNEC	Scottish National Equestrian Centre
SNH	Scottish National Heritage
SQA	Scottish Qualifications Authority
SVQ	Scottish Vocational Qualification
UHI	University of the Highlands and Islands
VLE	Virtual Learning Environment

### Appendix 3

#### Land-based industries sector-level performance indicator summary, 2008/09 to 2011/11

2008 - Mode	2009 - Level	2008/09			Initial enrolments	Completing 25% including non- assessed	Completing including non- assessed	Completing excluding non- assessed	Successful excluding non- assessed	Early Retention	Student Retention	Outcome
		No. of progs	SUMs	% SUMs								
FT	FE	107	26,998	55%	1,498	1,356	1,111	1,105	892	91%	82%	81%
FT	HE	33	6,060	12%	448	423	362	362	296	94%	86%	82%
PT	FE	1404	15,398	31%	10,856	10,546	10,304	4,412	3,641	97%	98%	83%
PT	HE	35	739	2%	261	212	199	194	119	81%	94%	61%

2009 - Mode	2010 Level	2009/10			Initial counting towards ESR	Completing 25% counting towards ESR	Completing 25% including non- assessed	Completing including non- assessed	Completing excluding non- assessed	Successful excluding non- assessed	Early Retention	Student Retention	Outcome
		No. of progs	SUMs	% SUMs									
FT	FE	128	31,340	64%	1,746	1,575	1,577	1,318	1,313	1,098	90%	84%	84%
FT	HE	42	7,065	14%	539	500	500	427	427	349	93%	85%	82%
PT	FE	1170	14,588	30%	8,913	8,829	8,842	8,683	4,008	3,411	99%	98%	85%
PT	HE	40	1,113	2%	208	197	236	197	160	138	95%	83%	86%

2010 - Mode	2011 Level	2010/11			Initial counting towards ESR	Completing 25% counting towards ESR	Completing 25% including non- assessed	Completing including non- assessed	Completing excluding non- assessed	Successful excluding non- assessed	Early Retention	Student Retention	Outcome
		No. of progs	SUMs	% SUMs									
FT	FE	116	30,880	63%	1,746	1,562	1,560	1,277	1,277	1,088	89%	82%	85%
FT	HE	35	7,335	15%	567	517	517	445	445	366	91%	86%	82%
PT	FE	1048	10,814	22%	6,638	6,536	6,507	6,337	3,288	2,947	98%	97%	90%
PT	HE	35	772	2%	202	194	194	172	167	147	96%	89%	88%

#### Notes

The early retention PI from 2009/10 excludes courses where the funding qualifying date was reached in the previous academic year. Therefore, the PI is not directly comparable to the value in 2008/09.

The student retention PI from 2009/10 is not directly comparable to previous years due to a change in guidance. FES 2 outcome code 21 ('Completed programme/course, student not assessed although programme/course designed to be assessed. Studying on a flexible open learning programme.')

was excluded in previous years.

(See student record outcome - code list I FES 2 guidance)

## Appendix 4

### Land-based industries enrolments in land-based subjects by gender, 2007/8 to 2010/11

Superclass	2007-08				2008-09				2009-10				2010-11			
	Enrolments (N)		Enrolments (%)		Enrolments (N)		Enrolments (%)		Enrolments (N)		Enrolments (%)		Enrolments (N)		Enrolments (%)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Agricultural Engineering/Farm Machinery	661	49	93	7	619	19	97	3	698	15	98	2	630	23	96	4
Agricultural Sciences	27	9	75	25	35	6	85	15	34	17	67	33	28	7	80	20
Agri/Horti Maintenance	154	34	82	18	174	56	76	24	217	70	76	24	154	28	85	15
Agriculture/Horticulture (general)	3,415	1,885	64	36	3,372	2,129	61	39	2,789	1,702	62	38	2,292	1,067	68	32
Amenity/Horticulture/Sports grounds	515	36	93	7	527	47	92	8	596	36	94	6	533	31	95	5
Animal Husbandry	741	1,138	39	61	494	1,133	30	70	359	906	28	72	388	743	34	66
Crop Production	14	3	82	18	54	57	49	51	74	46	62	38	58	22	73	28
Crop Protection/Fertilisers/By-products	276	9	97	3	241	9	96	4	546	27	95	5	454	24	95	5
Environmental Protection/Conservation	149	64	70	30	147	36	80	20	180	56	76	24	111	34	77	23
Fish Production/Fisheries	212	89	70	30	238	72	77	23	96	12	89	11	130	17	88	12
Forestry/Timber Production	598	43	93	7	763	32	96	4	615	65	90	10	593	17	97	3
Funerary Services	3	0	100	0	-	-	-	-	-	-	-	-	-	-	-	-
Gardening/Floristry/Plant Sales	213	787	21	79	183	715	20	80	287	610	32	68	121	345	26	74
Pets/Domestic Animal Care	110	518	18	82	163	778	17	83	120	591	17	83	85	494	15	85
Rural/Agricultural Business Organisation	32	25	56	44	69	32	68	32	-	-	-	-	-	-	-	-
Veterinary Services	17	246	6	94	24	305	7	93	23	237	9	91	14	179	7	93
Pollution/Pollution Control	-	-	-	-	-	-	-	-	29	0	100	0	33	1	97	3
Rural/Agricultural Business	-	-	-	-	-	-	-	-	94	3	97	3	104	18	85	15
Leather Footwear and Fur	-	-	-	-	5	3	63	38	-	-	-	-	-	-	-	-
<b>Grand Total</b>	<b>7,137</b>	<b>4,935</b>	<b>59</b>	<b>41</b>	<b>7,108</b>	<b>5,429</b>	<b>57</b>	<b>43</b>	<b>6,757</b>	<b>4,393</b>	<b>61</b>	<b>39</b>	<b>5,728</b>	<b>3,050</b>	<b>65</b>	<b>35</b>



## Appendix 5

### Land-based industries enrolments related to nationality/ethnicity, 2010/11

<b>Ethnicity description</b>	<b>N</b>	<b>%</b>
Asian, Asian Scottish or Asian British	62	1
Black, Black Scottish or Black British	20	0
Information refused/ unknown	26	0
Mixed	16	0
Other ethnic background	6	0
White	8,648	99
<b>Grand Total</b>	<b>8,778</b>	<b>100</b>

<b>Ethnic background description</b>	<b>N</b>	<b>%</b>
Scottish	7,180	81.8
English	1,018	11.6
Welsh	32	0.4
Irish	123	1.4
Any other white background	295	3.4
Mixed	16	0.2
Asian, Asian Scottish or Asian British	62	0.7
Black, Black Scottish or Black British	20	0.2
Any other background	6	0.1
Information refused	18	0.2
Information not known	8	0.1
	<b>8,778</b>	<b>100.0</b>

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